

**w**



**d**

**design without Design**



**D**




# Dream Fun Kit













‘꿈의 가구’는 1977년 토탈미술관의 전신 토탈갤러리가 아이들의 상상력과 창의력을 길러줌을 목표로 제작한 가구 디자인 키트이다. 무언가를 만들기 전에 따로 준비할 필요 없이 가구 부품과 연결부 등이 미리 준비된, 부품과 매뉴얼의 종합 선물 세트인 이 ‘꿈의 가구’를 접할 수 있는 행사가 진행된다. 토탈미술관 개관 50년을 기념하여 다시금 재매개된 가구 키트(kit)를 이용한 가족 워크숍을 통해 소개한다.

본 워크숍에서는 오늘날 가구들이 가진 시각과 조형 원리, 실용성에 관한 이해를 시작으로 각자 꿈의 가구 키트를 이용하고 응용하여 각자의 가구를 디자인하여 만들어 나가는 과정이 진행된다. 기존에 구성된 제작 매뉴얼을 통해 스스로 필요한 가구를 제작하거나, 매뉴얼을 기반으로 좀 더 발전한 가구를 구상하고, 또는 워크숍 초반에 공부한 현대 가구 원리를 기반으로 새로운 가구를 창조할 수도 있다.




아이들 스스로가 자신의 손을 이용해 만든 결과물이 성공적으로 살고 있는 한 공간과 시간대를 변화시킬 수 있음은 분명 감성과 감정에 영향을 끼치는 바가 클 것이다. 함께 참여한 어른들도 그렇겠지만 특히 아이들에게는 꽤나 재미있는 경험이 될 수 있을 것이다. 그들에게 세상은 빛나고 화려하고 짹하며 알아서 움직이는 화면들로 둘러싸인 것이었을 테니까. 스스로 나무 부속을 만지며 가족과 함께 이야기하며 구상한 디자인을 실현하여 그렇게 만든 결과물과 함께 생활함은 가족 모두에게 디자인이라는 개념과 행동에 대해 새롭게 생각해 볼 수 있는 기회가 될 것이다.

디자인은 무언가를 구상하고 만든다 라는 행위를 포함한다. 우리에게 디자인 이라는 행위는 가깝고, 동시에 멀다. 우선, 우리는 매일 무언가를 생각하고 구상하며 만들기에 삶 그 자체이다. 우리는 무의식중에 무언가를 구상하고 행동하다가도, 무언가를 디자인해야한다 라는 생각 앞에서는 그 한 발의 나아감을 버거워 하기도 한다. 어쨌든, 그 이전에 분명 무엇을 ‘디자인한다’ 라는 것은



분명 특별한 일이다. 우리 스스로가 주도적으로 행하고 바꿀 수 있기 때문이다.

분명, 디자인을 배웠거나 그 기술에 대해서 알아야 어떤 목적을 가지고 무언가를 디자인할 수 있다는 것이 아니다. 그런 쪽으로 무지한 사람이라도 시작할 수 있다. 아이와 부모님이, 아내와 남편이, 동생과 오빠가 함께 시작해보는 것은 어떨까. 그 결과물의 완성도가 어땠던 간에, 만드는 사람의 실력이 어떠하던, 자신의 손을 이용해 만든 결과물이 존재하며 이들이 성공적으로 우리네 한 공간, 우리의 어떠한 시간대를 변화시킬 수 있음은 분명 각 본인의 감성과 감정에 영향을 끼치는 바가 클 것이다. 일단 함께, 디자인에 대해 생각해보는 것을 시작으로 가볍게 진행해 보면서 우리 일상과 우리 주변을 바꾸는 특별함을, 그 차이에서 즐거움을 느낄 수 있었으면 한다. 그리고 이 행동을 통해 바뀐 나와 일상에서 디자인을 경험해 보는 것에 대해 한번 생각해 보았으면 한다. 물론 재미가 있다면 그것이 최고이고.



또한 디자이너와 작가들이 머리를 맞대고 3D 프린터를 사용하여 만든 추가 부품을 통해 외형과 기능성을 확장한 재매개된 꿈의 가구 조립 결과물이 함께 전시될 예정이다

# Dream Fun Kit

## Workshop











| NO    | サイズ             | 数量 |
|-------|-----------------|----|
| A 101 | 20 X 274 X 52   | 4  |
| A 102 | 20 X 422 X 52   | 4  |
| A 103 | 20 X 570 X 52   | 4  |
| A 104 | 20 X 829 X 52   | 2  |
| A 105 | 20 X 1162 X 52  | 2  |
| A 106 | 20 X 718 X 52   | 2  |
| A 201 | 25 X 124 X 300  | 2  |
| A 202 | 25 X 272 X 300  | 2  |
| A 203 | 25 X 1160 X 300 | 1  |
| A 204 | 25 X 124 X 600  | 2  |
| A 205 | 25 X 420 X 600  | 1  |
| A 301 | 30 X 300 (Φ30)  | 3  |
| A 302 | 30 X 600 (Φ30)  | 1  |
| A 401 | 25 X 190 (Φ190) | 4  |

(ボルト)

(ナット) (ワッシャ)

箱の中にある19種のパーツ84個を使って  
33以上の形状に組み立てることが出来ます

| 일자형 |      |        |              |
|-----|------|--------|--------------|
| 모델명 | 구멍개수 | 길이(cm) | 구멍사이의 간격(mm) |
|     | 8    | 7.5    | 32-33        |
|     | 13   | 43.5   | 32-33        |
|     | 15   | 58.5   | 38           |
|     | 27   | 88     | 32-33        |
|     | 39   | 126.5  | 32-33        |

| 원기둥 |        |        |
|-----|--------|--------|
| 모델명 | 길이(cm) | 지름(mm) |
|     | 31     | 27-28  |
|     | 60     | 26     |

| 원   |         |            |
|-----|---------|------------|
| 모델명 | 원지름(cm) | 내부 사각형(cm) |
|     | 19.8-20 | 11x11      |

| 빨간나사 |         |          |         |
|------|---------|----------|---------|
| 모델명  | 원지름(cm) | 나사길이(cm) | 외부분(cm) |
|      | 3.5     | 5.5      | 3.2     |

| 사각형  |        |         |
|------|--------|---------|
| 모델명  | 긴변(cm) | 짧은변(cm) |
| A201 | 31     | 11      |
| A204 | 60     | 11      |
| A202 | 31     | 27      |
| A205 | 60     | 43      |



# 꿈의가구

## 창조력과 상상력을 길러주는 즐거운 꿈의 가구

사람은 누구나 무엇인가를 만들어 보고 싶은 본능적인 욕구를 가지고 있습니다.

이 욕구를 자극하고 만족시키는 것은 창조력이나 상상력, 과학하는 마음을 키워 줍니다.

조립방법을 기본으로 하여 만들면 누구나 자기가 원하는 형태로 완성시킬 수 있도록 세밀한 주의와 배려가 기울여져 있음을 아시게 될 것입니다.

실제 사용할 목적으로 만들게 되는 실용적인 가구이면서도

만드는 도중 흥미를 느낄 수 있는 변화무궁한 장난감이기도 합니다.

그리고 완성했을 때의 기쁨은 정서적으로 깊고 오랜 영향을 미칩니다. 그러므로 어린이들과 더불어 우리 어른들도 이 “꿈의 가구”를 만들어 보시기를 권합니다.

극단적으로 기계화되고 획일화된 현대사회에 살며 온갖 스트레스로 시달리는 우리들의 심신을 달래줄 것입니다.

“꿈의 가구”는 또하나의 취미로서 즐기실 수 있습니다.



AA 601



# DREAMING FURNITURE

**DREAMING FURNITURE enriches  
creative possibilities and imagination.**

Everybody has the instinctive desire to produce something. Creative possibilities, imagination and craftsmanship can be enriched by stimulating and satisfying the desire. DREAMING FURNITURE is the best material for this. Anyone who try to produce something with the FURNITURE on a basic method of prefabrication will learn that it is made such a detailed care and consideration that he can complete any form he wants. It is not only a practical furniture we begin to make for a use, but also a diverse toy

we can gain pleasure from during playing with it. Therefore it may be recommended that we adults as well as our children would play with the DREAMING FURNITURE.

We will be comforted mentally and physically out of all the stress we get living in the extremely mechanistic and unificated society of our times. DREAMING FURNITURE can be enjoyed as means of another hobby.



BCL 101





BD 106 | AA 302  
BD 113 | BD 114



BB 107



**TOTAL**  
**토탈퍼니처**

서울특별시 종로구 동숭동 1-141  
토탈디자인빌딩 전화(762)5791-3

**DREAMING**  
**FURNITURE**

TOTAL DESIGN CORPORATION  
TOTAL DESIGN BLDG.  
1-141 DONGSUNG DONG  
CHONGROKU  
SEOUL 110 KOREA





|        |         |
|--------|---------|
| AA 402 | AA 404  |
| AA 602 | BCL 105 |



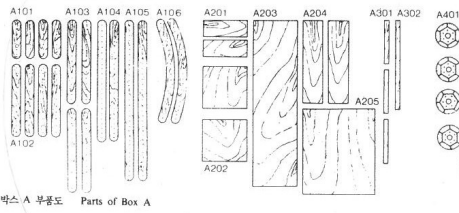
BD 110

BB 104

출원번호 제446번/출원번호 제8693번/출원번호 제8184번

# GROUP A

A그룹 중의 가구는 박스A의 부품 19종 84개로 33가지 이상의 형태를 조립하는 것이 가능합니다.  
With 84 parts of 19 kinds in a Box A, it is possible to assemble 33 Forms or over.(Group A)



박스 A 부품도 Parts of Box A

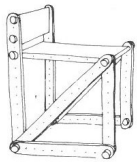
## 조립요령

1. 원하는 형태에 따라 필요한 부품을 종류와 규격대로 고른다.
2. 큰 부품부터 작은 부품 순으로, 안쪽에 붙는 부품부터 바깥쪽 부품 순으로 조립해 간다.
3. 몸체기둥과 널판에 연결되는 부분은 구멍수를 헤아려 정확한 위치를 찾는다. 몸체기둥이 겹쳐 조립되는 경우 다른 연결부분에 그 겹쳐진 넓이만큼 와셔를 끼워넣어 간격이 벌어지지 않도록 한다.
4. 꼭지볼트, 나트는 처음에는 꼭 죄지 말고 느슨하게 두었다가 완성된 후 완전히 조인다.

## SETTING UP

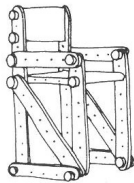
1. Select parts of kinds and various size needed to make some form you want.
2. Put together from large parts to small ones, and from inner parts to outer ones.
3. Holes of posts and plates are needed to find an exact length. If two posts are overlapped and hence make a gap on the other place several washers enough to fill the gap are inserted.
4. It is advisable that bolts and nuts aren't tightened during making ; form, but only after completion.

### AA204



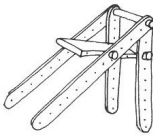
A102-4EA  
A103-4EA  
A204-1EA  
A205-1EA  
A501-6EA  
A502-2EA  
A503-4EA  
A601-2EA  
A701-2EA

### AA104



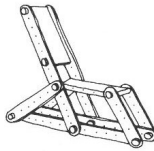
A101-4EA  
A102-4EA  
A103-2EA  
A201-1EA  
A202-1EA  
A501-6EA  
A502-6EA

### AA101



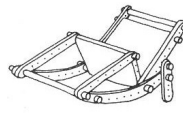
A101-2EA  
A102-2EA  
A301-1EA  
A202-1EA  
A501-2EA  
A502-4EA  
A701-2EA

### AA105



A101-4EA  
A103-4EA  
A202-2EA  
A501-6EA  
A502-6EA  
A503-2EA  
A601-6EA  
A701-2EA

### AA106



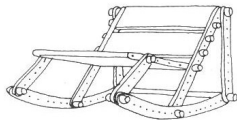
A101-2EA  
A102-4EA  
A106-2EA  
A202-2EA  
A201-1EA  
A301-1EA  
A501-6EA  
A502-8EA  
A503-2EA

### AA 601



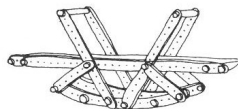
A101-2EA  
A102-4EA  
A106-2EA  
A201-1EA  
A202-2EA  
A301-1EA  
A501-6EA  
A502-8EA  
A503-2EA

### AA602



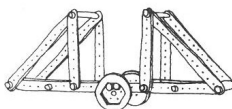
A101-4EA  
A102-2EA  
A106-2EA  
A201-2EA  
A202-1EA  
A501-6EA  
A502-8EA  
A503-2EA  
A601-4EA  
A701-4EA

### AA502



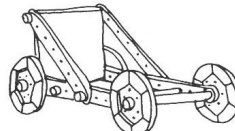
A101-4EA  
A102-4EA  
A104-2EA  
A106-2EA  
A201-2EA  
A202-2EA  
A301-2EA  
A501-8EA

### AA503



A102-4EA  
A103-4EA  
A105-2EA  
A202-2EA  
A301-2EA  
A401-2EA  
A501-4EA  
A502-8EA  
A503-8EA  
A601-8EA  
A701-8EA

### AA404



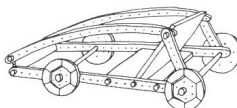
A102-2EA  
A103-2EA  
A202-2EA  
A201-1EA  
A401-4EA  
A501-4EA  
A502-6EA  
A701-4EA

### AA205



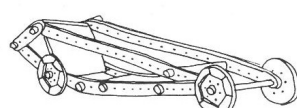
A101-2EA  
A103-2EA  
A104-2EA  
A204-1EA  
A205-2EA  
A301-1EA  
A501-4EA  
A502-10EA  
A701-6EA

### AA406



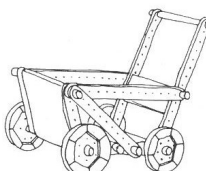
A101-2EA  
A104-2EA  
A106-2EA  
A201-1EA  
A202-2EA  
A301-2EA  
A401-4EA  
A501-4EA  
A502-4EA  
A503-6EA  
A601-2EA  
A701-6EA

### AA401



A101-2EA  
A104-2EA  
A105-2EA  
A106-2EA  
A201-1EA  
A202-2EA  
A301-2EA  
A401-4EA  
A501-4EA  
A502-12EA  
A503-2EA  
A601-2EA  
A701-6EA

### AA1001



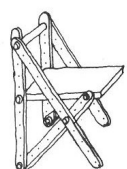
A101-2EA  
A102-4EA  
A103-4EA  
A202-1EA  
A201-1EA  
A301-2EA  
A503-8EA  
A502-4EA  
A501-4EA  
A401-4EA  
A701-8EA

### AA1002



A101-4EA  
A102-2EA  
A104-2EA  
A201-1EA  
A202-1EA  
A301-1EA  
A401-2EA  
A501-4EA  
A502-4EA  
A503-6EA  
A601-2EA  
A701-6EA

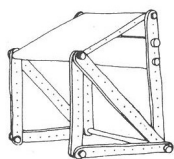
### AA103



A102-2EA  
A103-4EA  
A301-2EA  
A202-1EA  
A501-2EA  
A502-4EA  
A701-6EA  
A601-2EA  
A503-4EA

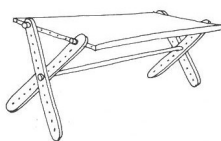


# AA301



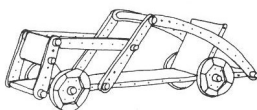
A102-4EA  
A103-4EA  
A204-1EA  
A205-1EA  
A301-1EA  
A501-6EA  
A502-2EA  
A503-4EA  
A601-2EA  
A701-2EA

# AA201



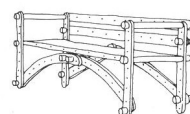
A103-4EA  
A205-1EA  
A302-1EA  
A501-2EA  
A502-2EA  
A701-2EA

# AA402



A101-2EA  
A102-4EA  
A106-2EA  
A201-2EA  
A202-1EA  
A203-1EA  
A301-1EA  
A401-4EA  
A501-10EA  
A502-12EA  
A701-10EA

# AA108



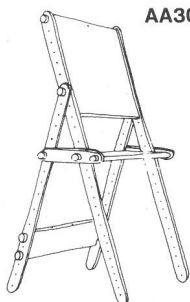
A102-4EA  
A103-2EA  
A105-2EA  
A106-2EA  
A203-1EA  
A301-2EA  
A501-6EA  
A502-8EA  
A503-3EA  
A601-8EA  
A701-3EA

# AA501



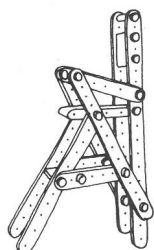
A104-4EA  
A106-2EA  
A203-1EA  
A501-4EA  
A502-4EA  
A601-4EA

# AA302



A101-2EA  
A104-2EA  
A105-2EA  
A204-2EA  
A205-1EA  
A501-2EA  
A502-8EA  
A503-4EA  
A601-2EA  
A701-10EA

# AA107



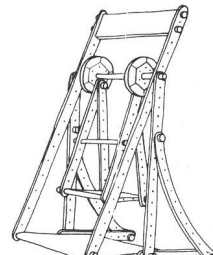
A101-4EA  
A103-4EA  
A104-2EA  
A201-2EA  
A202-1EA  
A301-3EA  
A501-8EA  
A502-10EA  
A503-4EA  
A601-2EA  
A701-6EA

# AA203



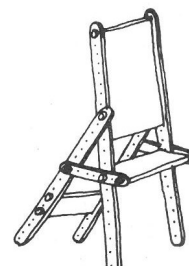
A102-2EA  
A103-4EA  
A104-2EA  
A105-2EA  
A204-2EA  
A205-1EA  
A302-1EA  
A501-12EA  
A502-2EA  
A503-4EA  
A601-2EA  
A701-2EA

# AA701



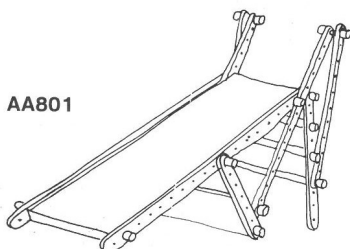
A102-2EA  
A103-4EA  
A104-2EA  
A105-2EA  
A106-2EA  
A202-1EA  
A204-1EA  
A205-1EA  
A301-1EA  
A302-1EA  
A401-2EA

# AA303



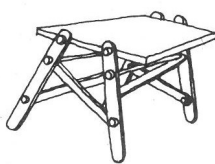
A101-2EA  
A103-2EA  
A104-2EA  
A204-2EA  
A205-1EA  
A501-2EA  
A502-8EA  
A503-4EA  
A601-2EA  
A701-10EA

# AA801



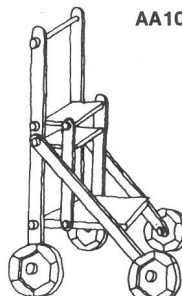
A102-2EA  
A103-4EA  
A104-2EA  
A201-1EA  
A203-1EA  
A301-3EA  
A501-6EA  
A502-10EA  
A503-4EA  
A601-2EA  
A701-8EA

# AA206



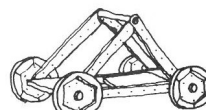
A102-4EA  
A103-4EA  
A204-2EA  
A205-1EA  
A501-12EA  
A502-8EA  
A601-8EA

# AA1003



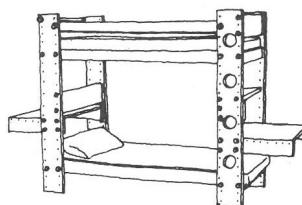
A102-2EA  
A103-2EA  
A104-2EA  
A201-2EA  
A202-1EA  
A501-12EA  
A502-8EA  
A503-4EA

# AA405



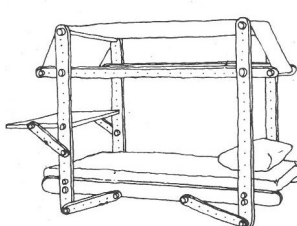
A102-2EA  
A103-4EA  
A202-1EA  
A301-2EA  
A401-4EA  
A502-4EA  
A503-6EA  
A601-2EA  
A701-10EA

# BB114



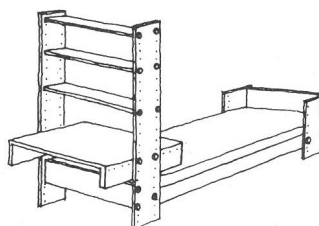
B133-4EA  
B311-2EA  
B223-2EA  
B212-2EA  
B541-2EA  
B202-6EA  
A501-52EA  
A502-8EA  
A601-8EA

# BB107



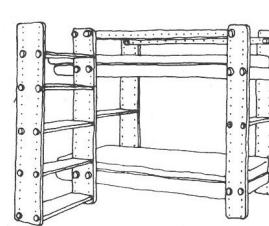
B222-1EA  
B163-2EA  
A102-4EA  
A105-4EA  
A501-10EA  
A502-18EA  
A601-4EA  
A701-4EA  
B541-1EA  
B521-1EA  
B211-1EA

# BB110



B133-2EA  
B223-1EA  
B134-2EA  
B202-4EA  
B212-1EA  
A501-28EA  
A502-4EA  
A601-4EA  
B311-1EA  
B541-1EA

# BB109



B133-5EA  
B223-2EA  
B311-2EA  
B202-8EA  
A501-52EA  
A502-4EA  
A601-4EA  
B541-1EA

**TOTAL**

# GROUP B

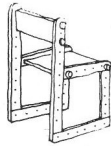
B그룹 꿈의 가구는 박스A의 부품과 새로운 50종의 부품을 혼합 사용하여 침대·의자·책장·옷장·정리장·놀이기구 등 원하는 어떤 형태의 것도 만들 수 있습니다.  
With new 50 parts added to the ones in a Box A, you can make a bed, a desk, a bookshelf, a clothes cabinet, a chest of shelves, a playing tool and any other form you wish. (Group B)

BC101



B101-2EA  
A201-1EA  
A202-1EA  
A301-1EA  
A501-10EA

BC102



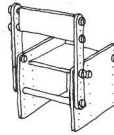
B102-2EA  
A201-1EA  
A202-1EA  
A301-1EA  
A501-4EA  
A502-6EA  
A701-4EA

BC103



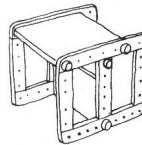
B141-2EA  
A201-1EA  
A202-1EA  
A301-1EA  
A501-10EA

BC104



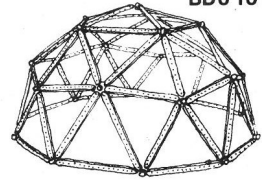
B121-2EA  
A101-2EA  
A201-1EA  
A202-1EA  
A301-1EA  
A501-4EA  
A502-10EA  
A601-4EA  
A701-6EA

BC105



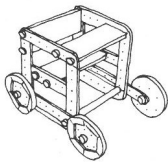
B111-2EA  
A202-2EA  
A501-8EA

BD0101



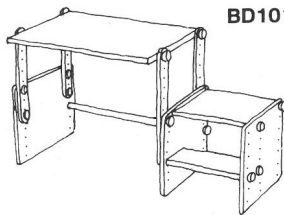
B164-30EA  
A103-35EA  
B533-190EA  
B534-130EA  
B532-130EA  
A501-36EA  
A601-36EA  
A701-36EA

BC108



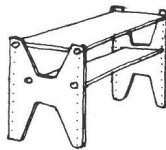
B111-2EA  
A201-3EA  
A301-1EA  
A401-4EA  
A501-12EA  
A102-2EA  
A502-4EA  
A503-2EA  
A601-4EA

BD101



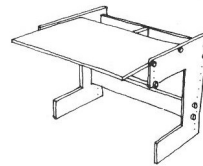
B121-3EA  
A101-4EA  
A201-1EA  
A202-1EA  
A205-1EA  
A302-1EA  
A501-12EA  
A502-8EA

BD102



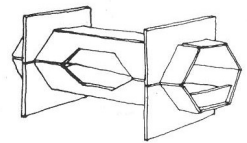
B142-2EA  
A205-1EA  
A511-1EA  
A501-8EA

BD103



B143-2EA  
B203-1EA  
B512-1EA  
B301-1EA  
A501-10EA

BB116



B144-4EA  
B208-4EA  
B303-2EA  
B304-2EA  
B542-1EA  
B532-32EA  
B542-1EA

BD104



B151-2EA  
B155-2EA  
B301-1EA  
B201-1EA  
A501-4EA  
A502-4EA

BD105



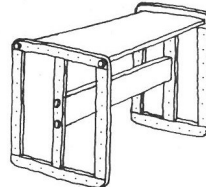
B152-2EA  
B211-1EA  
B301-1EA  
A501-8EA  
A601-4EA

BD113



B112-2EA  
A205-2EA  
A501-8EA

BD108



B114-2EA  
B201-1EA  
B301-1EA  
A501-8EA

BCL108



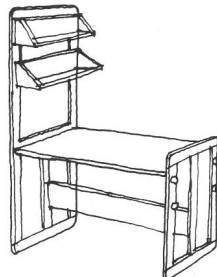
B131-2EA  
B132-1EA  
A205-3EA  
A302-1EA  
B301-1EA  
B205-1EA  
A501-22EA  
A204-1EA

BD106



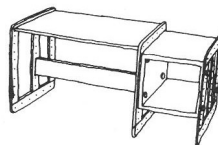
B152-2EA  
B211-1EA  
B301-1EA  
B321-3EA  
A501-10EA  
A103-2EA  
A701-4EA  
A601-2EA  
A502-4EA  
B523-1EA

BD109



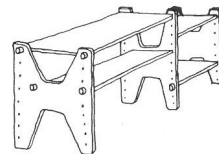
B114-1EA  
B115-1EA  
B301-1EA  
B401-2EA  
B501-16EA

BD111



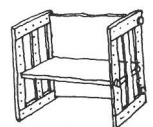
B114-1EA  
B122-1EA  
B123-1EA  
B204-2EA  
B501-1EA  
B301-1EA  
A501-16EA

BD112



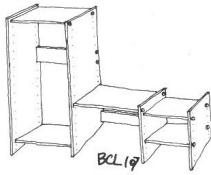
B142-3EA  
B511-1EA  
B205-1EA  
B204-2EA  
A501-16EA

BD113



B112-2EA  
A205-2EA  
A501-8EA

BS101



B411-3EA  
B421-1EA  
B161-2EA  
A501-4EA  
A502-6EA  
A601-6EA

BS102



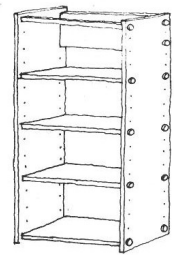
B162-2EA  
B402-3EA  
B421-1EA  
A501-16EA

BS103



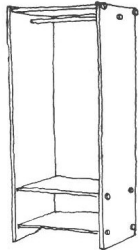
B162-2EA  
B421-3EA  
A501-14EA

BS107



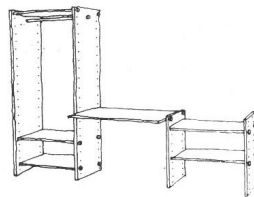
B133-2EA  
B202-5EA  
B321-1EA  
A501-22EA

BCL 101



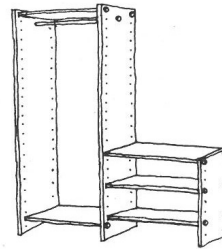
B131-2EA  
B531-10EA  
A205-2EA  
A302-1EA  
A501-14EA  
B231-1EA

BCL107



B135-2EA  
B301-1EA  
B205-1EA  
A205-2EA  
A204-2EA  
A501-32EA

BCL103



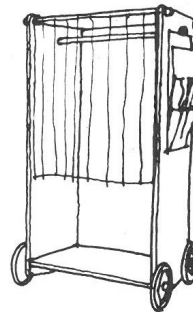
B131-2EA  
B531-10EA  
B231-1EA  
A205-5EA  
A302-1EA  
A502-22EA

BCL104



B131-2EA  
B531-10EA  
B231-1EA  
A205-2EA  
A302-1EA  
B201-1EA  
B151-1EA  
B155-1EA  
B321-1EA  
A501-16EA

BCL105



B131-2EA  
B531-10EA  
B231-1EA  
A205-2EA  
A302-1EA  
A401-4EA  
A501-6EA  
A502-4EA  
A701-4EA

BCL 106



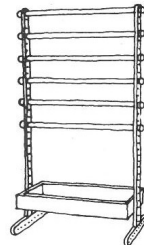
B131-3EA  
B531-10EA  
B231-1EA  
A205-3EA  
A302-1EA  
A421-1EA  
A501-18EA

BH101



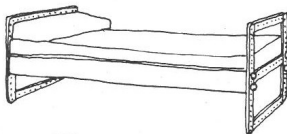
B162-2EA  
B421-1EA  
A501-12EA  
A302-6EA

BH102



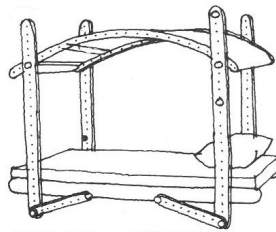
B161-2EA  
B411-1EA  
A302-6EA  
A501-14EA

BB101



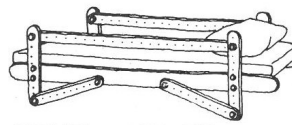
B116-2EA  
B221-1EA  
B501-14EA  
B541-1EA  
B302-2EA

BB102



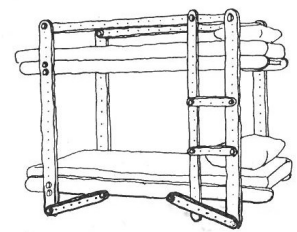
B222-1EA  
B321-5EA  
A102-4EA  
A105-4EA  
A106-4EA  
A501-4EA  
A601-10EA  
A701-14EA  
B522-1EA  
B541-1EA

BB115



A105-2EA  
A101-4EA  
A102-4EA  
B222-1EA  
B541-1EA  
A501-4EA  
A601-16EA

BB104



A502-27EA  
A601-19EA  
A701-4EA  
B541-1EA  
B154-4EA  
B222-2EA  
A102-4EA  
A501-8EA



# DREAM FUN KIT

創造力

空想力を

豊かにする

1-141 Dong Soong-Dong, Jongno-Gu,  
Seoul, Korea

TEL: (02) 762-5791 ~ 3 (02) 742-9481 ~ 4

FAX: (02) 744-2090

## 組み立て方

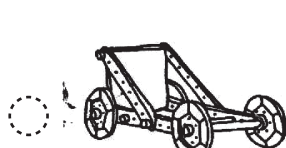
- 1) 下記の図面から作りたい型決めパーツリストに従い それに合ったパーツを選びます。
- 2) 大きなパーツから小さなパーツを、内側のパーツから 外側のパーツへと組み立てます。
- 3) 柱と横木の穴に合った正しい長さ見つけて組み立てて下さい。  
二本の柱が重なる場合は片方に隙間が出ないようにワッシャーをさし込みます。
- 4) ボルトとナットは組み立て中はあまりきつく締めない方が良く組み立てられます。  
尚、組み立て後はしっかり締めて下さい。

| NO    | サイズ             | 数量   |
|-------|-----------------|------|
| A 101 | 20 x 274 x 52   | 4 EA |
| A 102 | 20 x 422 x 52   | 4    |
| A 103 | 20 x 570 x 52   | 4    |
| A 104 | 20 x 829 x 52   | 2    |
| A 105 | 20 x 1162 x 52  | 2    |
| A 106 | 20 x 718 x 52   | 2    |
| A 201 | 25 x 124 x 300  | 2    |
| A 202 | 25 x 272 x 300  | 2    |
| A 203 | 25 x 1160 x 300 | 1    |
| A 204 | 25 x 124 x 600  | 2    |
| A 205 | 25 x 420 x 600  | 1    |
| A 301 | 30 x 300 (φ30)  | 3    |
| A 302 | 30 x 600 (φ30)  | 1    |
| A 401 | 25 x 190 (φ190) | 4    |

| (ボルト)            | (ナット)         | (ワッシャー)       |
|------------------|---------------|---------------|
| A501<br>□□□□□□□□ | A601<br>○□□□○ | A701<br>○□□□○ |
| A502<br>□□□□□□□□ |               |               |
| A503<br>□□□□□□□□ |               |               |

箱の中にある19種のハーツ84個を使って  
33以上の形状に組み立てることが出来ます。



AA404

A102-2EA  
A103-2EA  
A202-2EA  
A301-1EA  
A401-4EA  
A501-2EA  
A502-8EA  
A701-6EA



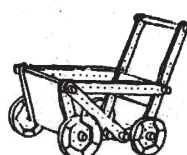
AA502

A101-4EA  
A102-4EA  
A104-2EA  
A106-2EA  
A201-2EA  
A202-2EA  
A301-2EA  
A501-8EA  
A502-8EA  
A503-8EA  
A601-4EA  
A701-8EA



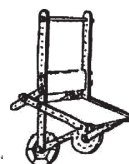
AA106

A101-2EA  
A102-4EA  
A106-2EA  
A202-2EA  
A201-1EA  
A301-1EA  
A501-6EA  
A502-8EA  
A503-2EA  
A607-2EA  
A701-4EA



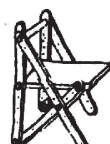
AA1001

A101-2EA  
A102-4EA  
A103-4EA  
A202-2EA  
A201-1EA  
A301-2EA  
A503-8EA  
A502-4EA  
A501-4EA  
A401-4EA  
A701-8EA



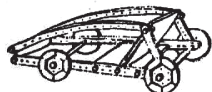
AA1002

A101-4EA  
A102-2EA  
A104-2EA  
A201-1EA  
A202-1EA  
A301-2EA  
A401-2EA  
A501-4EA  
A502-4EA  
A503-6EA  
A601-2EA  
A701-6EA



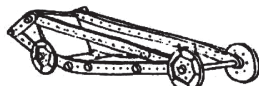
AA103

A102-2EA  
A103-4EA  
A301-2EA  
A202-1EA  
A501-2EA  
A502-4EA  
A701-6EA  
A601-2EA  
A503-4EA



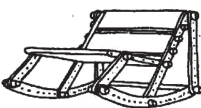
AA406

A101-2EA  
A104-2EA  
A106-2EA  
A201-1EA  
A202-2EA  
A301-2EA  
A401-4EA  
A501-10EA  
A502-4EA  
A503-2EA  
A701-4EA



AA401

A101-2EA  
A104-2EA  
A105-2EA  
A106-2EA  
A201-1EA  
A202-2EA  
A301-2EA  
A401-4EA  
A501-4EA  
A502-12EA  
A503-2EA  
A601-2EA  
A701-6EA



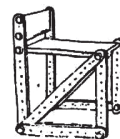
AA602

A101-2EA  
A102-2EA  
A103-2EA  
A106-2EA  
A204-2EA  
A205-1EA  
A302-1EA  
A501-10EA  
A502-4EA  
A503-4EA  
A601-4EA  
A701-4EA



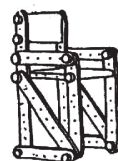
AA601

A101-4EA  
A102-2EA  
A106-2EA  
A201-2EA  
A202-1EA  
A501-6EA  
A502-8EA  
A503-2EA  
A601-4EA  
A701-4EA



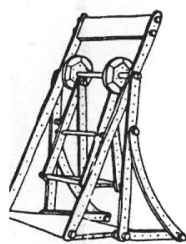
AA204

A102-4EA  
A103-4EA  
A204-1EA  
A205-1EA  
A501-6EA  
A502-4EA  
A503-2EA  
A601-4EA  
A701-4EA



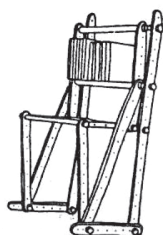
AA104

A101-4EA  
A102-4EA  
A103-2EA  
A201-1EA  
A202-1EA  
A501-6EA  
A502-6EA  
A503-4EA  
A601-8EA  
A701-2EA



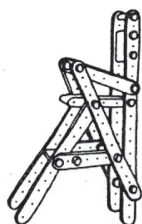
**AA701**

A102-2EA  
A103-4EA  
A104-2EA  
A105-2EA  
A106-2EA  
A202-1EA  
A204-1EA  
A205-1EA  
A301-1EA  
A302-1EA  
A401-2EA  
A501-12EA  
A502-8EA  
A503-4EA  
A601-6EA  
A701-4EA



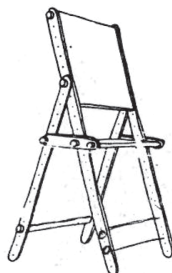
**AA203**

A102-2EA  
A103-4EA  
A104-2EA  
A105-2EA  
A204-2EA  
A205-1EA  
A302-1EA  
A501-12EA  
A502-2EA  
A503-4EA  
A601-2EA  
A701-2EA



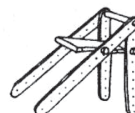
**AA107**

A101-4EA  
A103-4EA  
A104-2EA  
A201-2EA  
A202-1EA  
A301-3EA  
A501-8EA  
A502-8EA  
A503-6EA  
A601-4EA  
A701-8EA



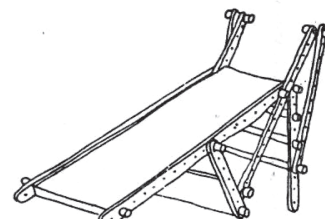
**AA302**

A101-2EA  
A104-2EA  
A105-2EA  
A204-2EA  
A205-1EA  
A501-2EA  
A502-6EA  
A503-4EA  
A601-2EA  
A701-8EA  
A302-1EA



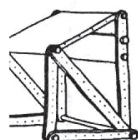
**AA101**

A101-2EA  
A102-2EA  
A301-1EA  
A202-1EA  
A501-2EA  
A502-4EA  
A701-2EA



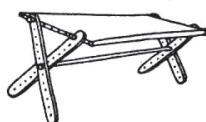
**AA801**

A102-2EA  
A103-4EA  
A104-2EA  
A201-1EA  
A203-1EA  
A301-3EA  
A501-6EA  
A502-10EA  
A503-4EA  
A601-2EA  
A701-8EA  
A105-2EA



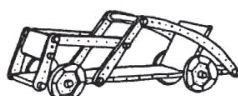
**AA301**

A102-4EA  
A103-4EA  
A204-1EA  
A205-1EA  
A501-6EA  
A502-4EA  
A503-2EA  
A601-4EA



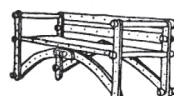
**AA201**

A103-4EA  
A205-1EA  
A302-1EA  
A501-2EA  
A502-4EA  
A701-2EA



**AA402**

A101-2EA  
A102-4EA  
A106-2EA  
A201-2EA  
A202-1EA  
A203-1EA  
A301-1EA  
A401-4EA  
A501-12EA  
A502-10EA  
A701-8EA



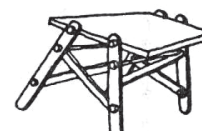
**AA108**

A102-4EA  
A103-2EA  
A105-2EA  
A106-2EA  
A203-1EA  
A301-2EA  
A501-6EA  
A502-11EA  
A503-1EA  
A601-8EA  
A701-3EA



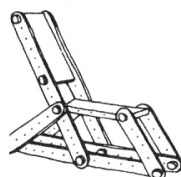
**AA501**

A104-4EA  
A106-2EA  
A203-1EA  
A501-4EA  
A502-4EA  
A601-4EA



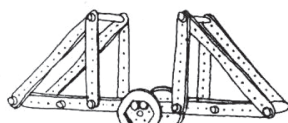
**AA208**

A102-4EA  
A103-4EA  
A204-2EA  
A205-1EA  
A501-12EA  
A502-8EA  
A601-8EA



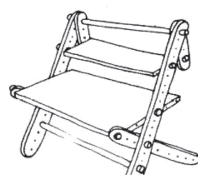
**AA105**

A101-4EA  
A103-4EA  
A202-2EA  
A501-6EA  
A502-6EA  
A503-2EA  
A601-6EA  
A701-2EA



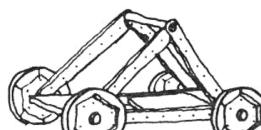
**AA503**

A102-4EA  
A103-4EA  
A105-2EA  
A202-2EA  
A301-2EA  
A401-2EA  
A501-4EA  
A502-8EA  
A503-8EA  
A601-8EA  
A701-8EA



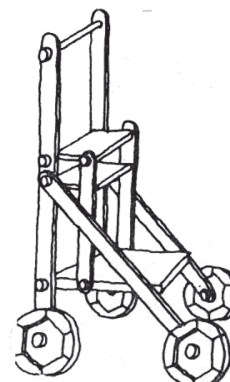
**AA205**

A101-2EA  
A103-2EA  
A104-2EA  
A204-1EA  
A205-2EA  
A301-1EA  
A501-4EA  
A502-10EA  
A701-6EA



**AA405**

A102-2EA  
A103-4EA  
A202-1EA  
A301-2EA  
A401-4EA  
A502-4EA  
A503-6EA  
A601-2EA  
A701-10EA



**AA1003**

A102-2EA  
A103-2EA  
A104-2EA  
A201-2EA  
A202-1EA  
A501-12EA  
A502-8EA  
A503-4EA

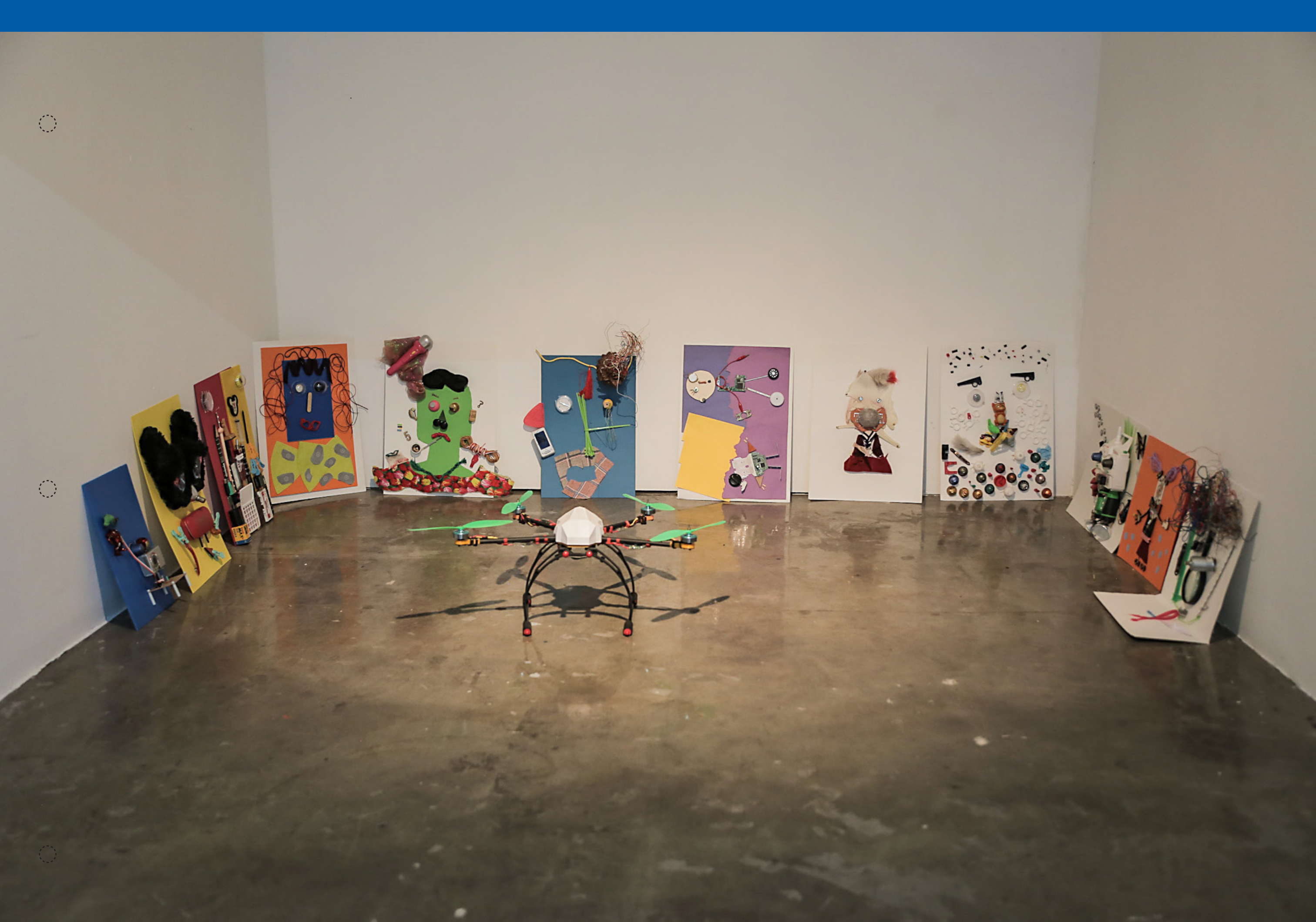
This exploded perspective view illustrates the assembly of a chair. The components are labeled as follows:

- Backrest Assembly:** Includes the backrest panel (A204), backrest legs (A105, A106), and backrest crossbars (A102, A104). It is secured with screws (A501, A502) and a bolt (A701).
- Seat Assembly:** Features the seat panel (A205) and seat legs (A101, A102). It is fastened with screws (A501, A502) and a bolt (A701).
- Front Legs and Crossbar:** Consists of front legs (A101, A102) and a front crossbar (A104). Screws (A501, A502) and a bolt (A701) are used for assembly.
- Armrests and Side Supports:** Includes armrests (A202, A203) and side support legs (A101, A102). These are attached using screws (A501, A502) and bolts (A701).
- Connectors and Fasteners:** Various screws (A501, A502) and bolts (A701) are shown throughout the diagram, indicating their placement on the different components.

# Hanoch Piven









## Hanoch Piven

교육가이자 저자이기도 한 하노흐 피벤은 이스라엘의 일러스트레이터로서 지난 25년간 컬러풀하고 위트있는 일러스트를 그려오기로 유명하다. 하노흐 피벤의 일러스트들은 미국의 타임지, 뉴스위크, 롤링 스톤을 비롯해 유럽의 런던 타임즈 등 전세계 주요 잡지의 커버를 장식하며 소개되어왔다.

피벤은 이스라엘의 TV쇼와 교육방송 등을 통해 꾸준히 소개되며 이스라엘에서 명성을 쌓았고 피벤의 워크샵 방법은 이스라엘의 많은 유치원, 초등학교, 중학교 등에서 받아들여 아이들의 창의성 교육을 위해 실행되고 있다.



## workshop

"예술을 통해 발전시키는 소통의 방법"을 주제로, 우리의 일상에서 너무 쉽게 볼 수 있는 버려진 모든 물건을 이용해 나만의 그림을 완성해보는 참여형 워크샵에 여러분을 초대합니다. 주변의 사물로 콜라주를 통해 완성된 창작품은 작가가 이야기하는 창의성, 소통, 자기성찰과 지속가능성에 대해 이해하는 기회가 될 것입니다.

2003년부터 진행되어 온 피벤의 워크숍은 쉽고 재미있게 창의성을 경험하는 것 외에도, 놀이를 통해 소통하는 유용한 방법으로 많은 교육자, 미술치료사, 상담사들에게 사랑을 받으며 이스라엘 뿐 아니라 미국, 중국, 스페인, 과테말라, 싱가포르, 브라질, 태국 등 다양한 나라의 학생, 선생님, 정부부처 관계자, IT 기업 종사자들을 대상으로 워크샵을 진행해오고 있습니다.

# Hanoch Piven



## Workshop











# 1-SQM House













## 1-SQM House

‘Hartz IV-Mobel’로 불리는 DIY가구컬렉션으로 잘 알려진 독일 건축가 Van Bo Le-Mentzel의 꿈은 난민, 노숙자, 공공 보조금으로 연명하는 사람이나 공공지원주택에 거주하는 사람 등을 막론하고 누구나 가질 수 있는 집을 만드는 것이었다. 그 결과 동네 철물점에서도 쉽게 구입할 수 있는 도구와 자재를 사용하여 누구든 자신의 집을 쉽게 스스로 지을 수 있는 목재 DIY 하우스를 개발하였다. 1평방미터도 안 되는 바닥면적을 가진 DIY하우스 이지만 가로로 눕힐 수 있는 구조로 디자인하여 누울 공간을 확보할 수 있도록 설계하였으며 용도는 이동식 매점, 개방형 사무공간, 엑스트라 하우스 사용할 수 있을 만큼 다양하다.



# ONE-SQM-HOUSE

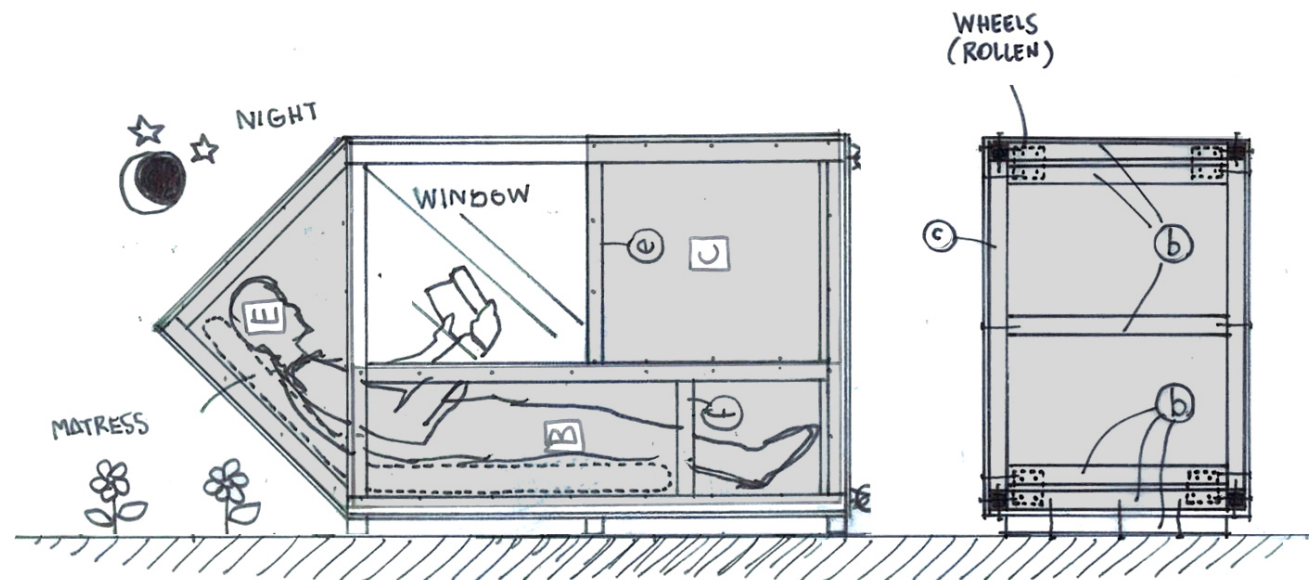
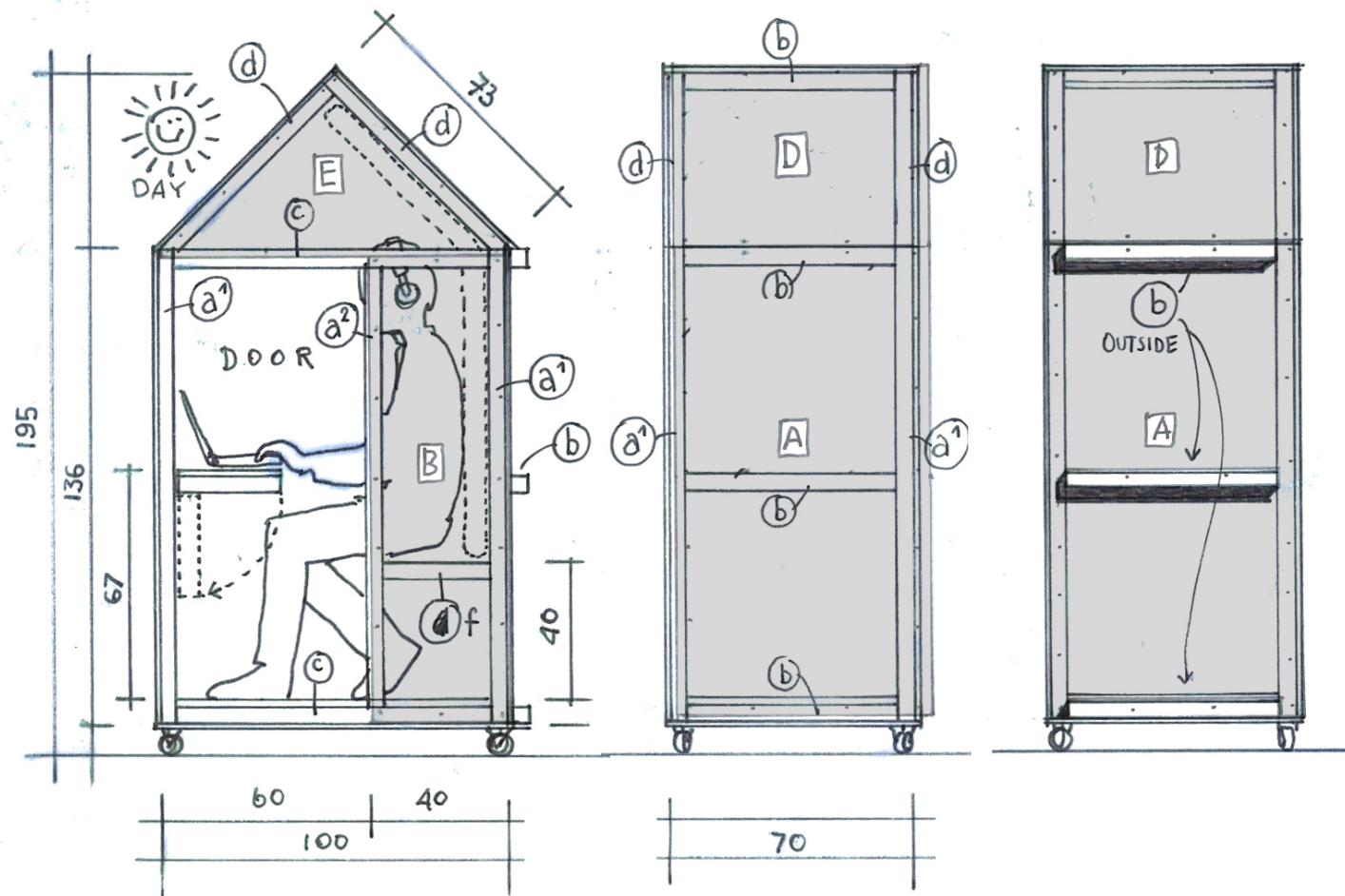
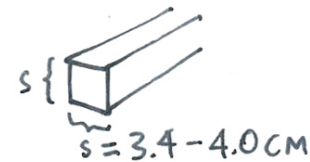
VERSION 1.1

DESIGN: 2012, VAN BO LE-MENTZEL

COST: 250 EURO & 1 DAY TO BUILD IT.  
NEED SCREW-DRIVER, (JAPANESE) SAW,  
NO WORKSHOP REQUIRED.

ONE-SQM-HOUSE  
VERSION 1

(BASED ON LUMBERS  
THAT ARE SQUARED!)



## Shopping List (in cm)

General size: L=100 cm B=70 cm H=ca.195 cm

Doorheight (DH)/Traufhöhe = 136 cm

Costs / Kosten= ca. 250 Euro / 300 US-Dollars

This is perfect for people under 180 cm and for transport, because this house fits through doors. But please feel free to change the size.

Perfekt für Menschen unter 180cm und für Transport, weil dieses Haus durch Türöffnungen passt.

All measures based on lumber (square) S=3.4 cm

Alle Maßen basieren auf quadratischem Profil

You can use a different S-size. S is best between 3.4 and 4.0 cm.

If you do not have squared lumbers, please ask for the plan Version 2.0

Wenn Dein Kantholz S größer ist als 3.4 cm, dann tausche es aus durch S. S sollte zwischen 3.4 und 4cm groß sein. Wenn Du keine quadratischen Kanthölzer hast, sondern rechteckige, dann frag nach dem Plan Version 2.0

Buy:

### 1. Lumber pine square/Kanthölzer Fichte quadratisch S=3.4cm

4x (a1)=136cm (DH)

2x (a2)=126.2cm (DH-2xS)

13x (b)=63.2cm (B-2xS)

4x (c)=93.2cm (L-2xS)

4x (d)=73cm

1x (e)=56.6cm (60cm-S)

1x (f)=33.2cm (40cm-2xS) for Seat/für Sitz

### 2. Walls/Wände (Multiplex Birch/Birke), Thickness/Stärke W=4mm

2x [A]=136cm x 70.8cm (DHxB+2xW)

2x [B]=38cm x 136cm (40cm - 1/2xS)x(DH)

1x [C]=66cm x 61.7cm (DH/2-1/2 S)x(60+1/2S)

2x [D]=70cm x 75cm

1x [E]=75cm x 75cm

1x [F]=100cm x 70cm (LxB)

Roof/Dachplatten

Gable/Giebel

Bottom/Boden außen

### 3. Boards/Platten (Multiplex), Thickness/Stärke= 6mm-8mm

1x [G]=63.2cm x 100cm (B-2S)x(L)

1x [H]=70x33.2 (Bxf)

1x [I]=60cm x 36cm

1x [J]=23cm x 29cm

Floor/Boden

Seat/Sitz

Table/Tisch

Console for table

### 4. Door (Multiplex), Thickness/Stärke= 12mm

1x ca.136cm x 60cm

plus lumber/Kantholz S=3.4cm for door construction (2x136cm and 2x54cm)

plus lock? and 2 hinges (Klavierband-Scharniere)

### 5. Screws (SPAX, Z2)

ca. 100x 3.5x50 for frame/für Gerüst

ca. 100x 3.5x30 for walls

### 6. Wheels/Rollen

4x wheels total height 10cm, 360°

20 x screws (6.0x50) and 20 discs and nuts / 20 Teller und Mütter

### 7. Window

1x Acryl Glass ca. 66cm x 62cm

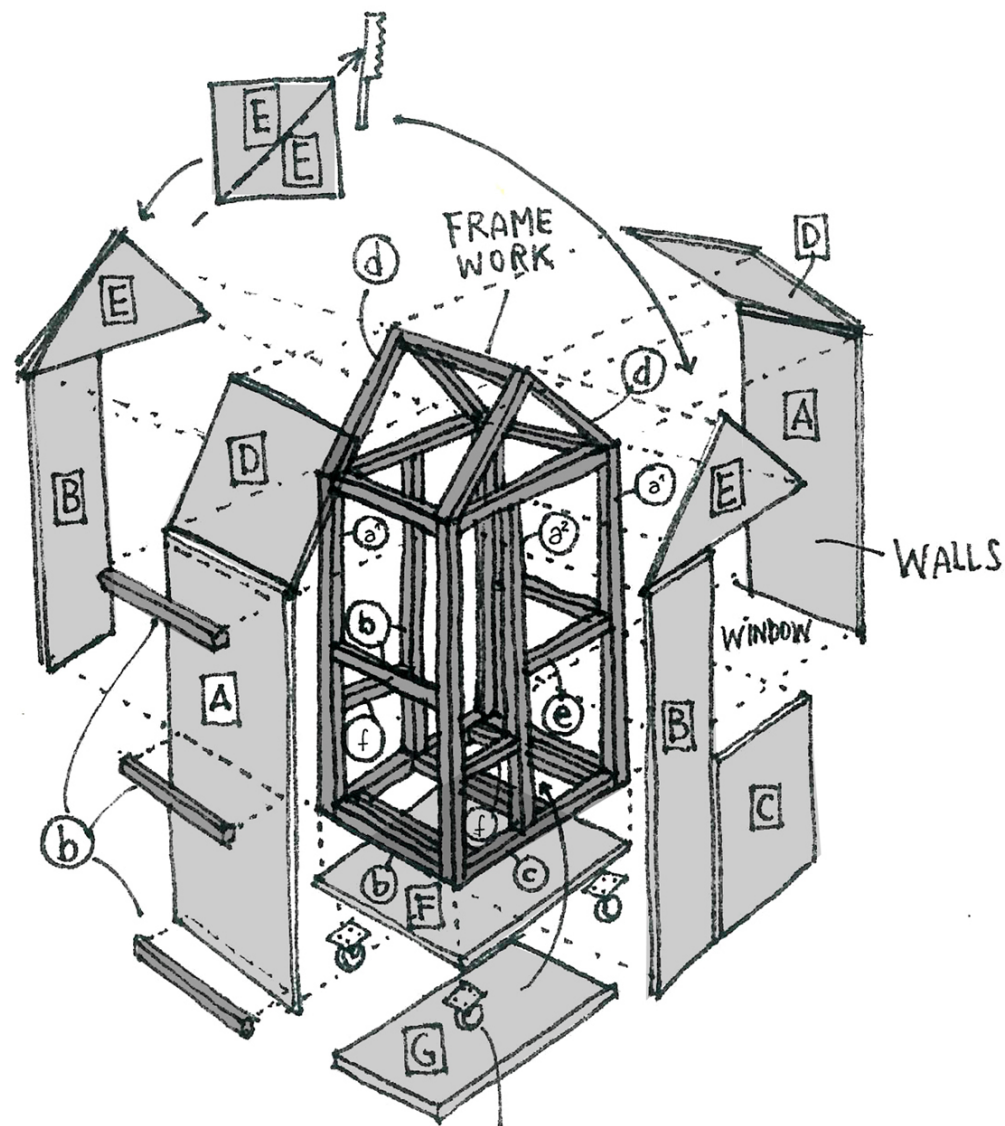
(please order window when everything is built/bitte erst Fensterscheibe bestellen, wenn alles fertig)



# ONE-SQM-HOUSE

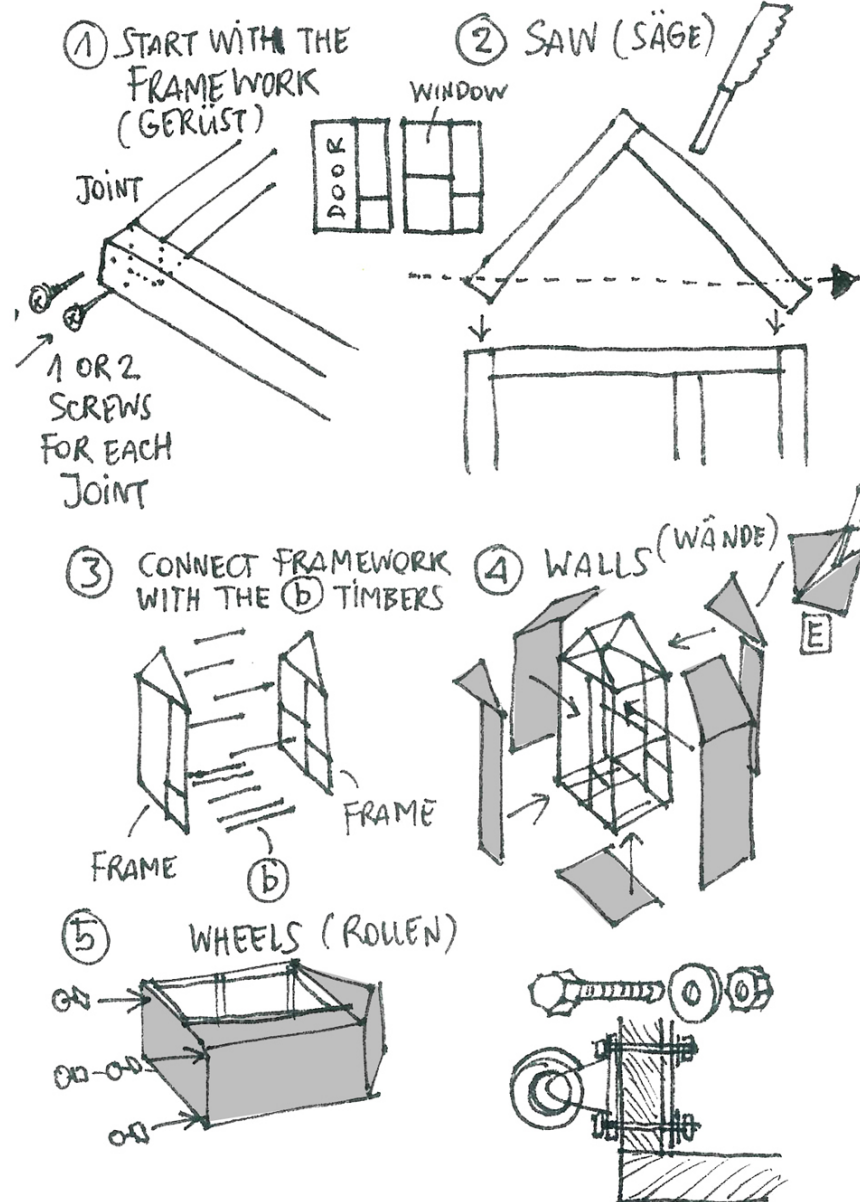
DESIGN: 2012, VAN BO LE-MENTZEL

STEP BY STEP

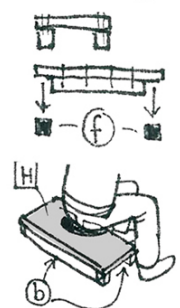


IT LOOKS COMPLICATED BUT IT'S EASY! YOU CAN MAKE IT AS AN AMATEUR.

SIEHT KOMPLIZIERT AUS, ABER ES IST WIRKLICH FÜR JEDEN LAIEN MACHBAR!

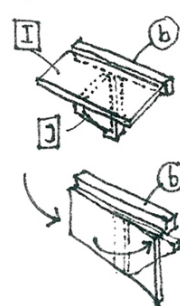


BENCH (PORTABLE) PUT ON (f)



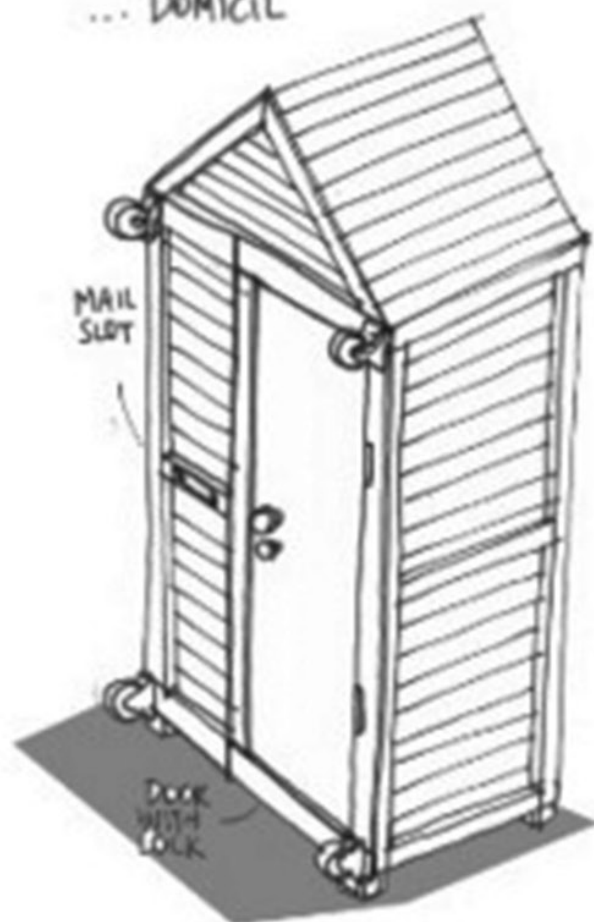
4 WHEELS  
10CM  
360°

DESK (FOLDABLE)

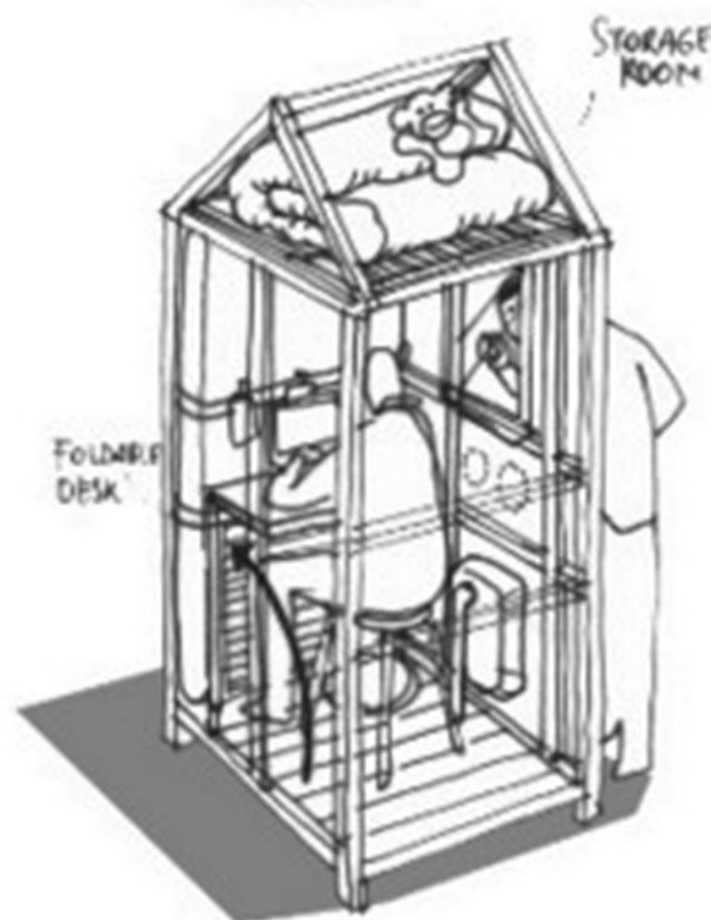




BUSINESS  
... DOMICIL



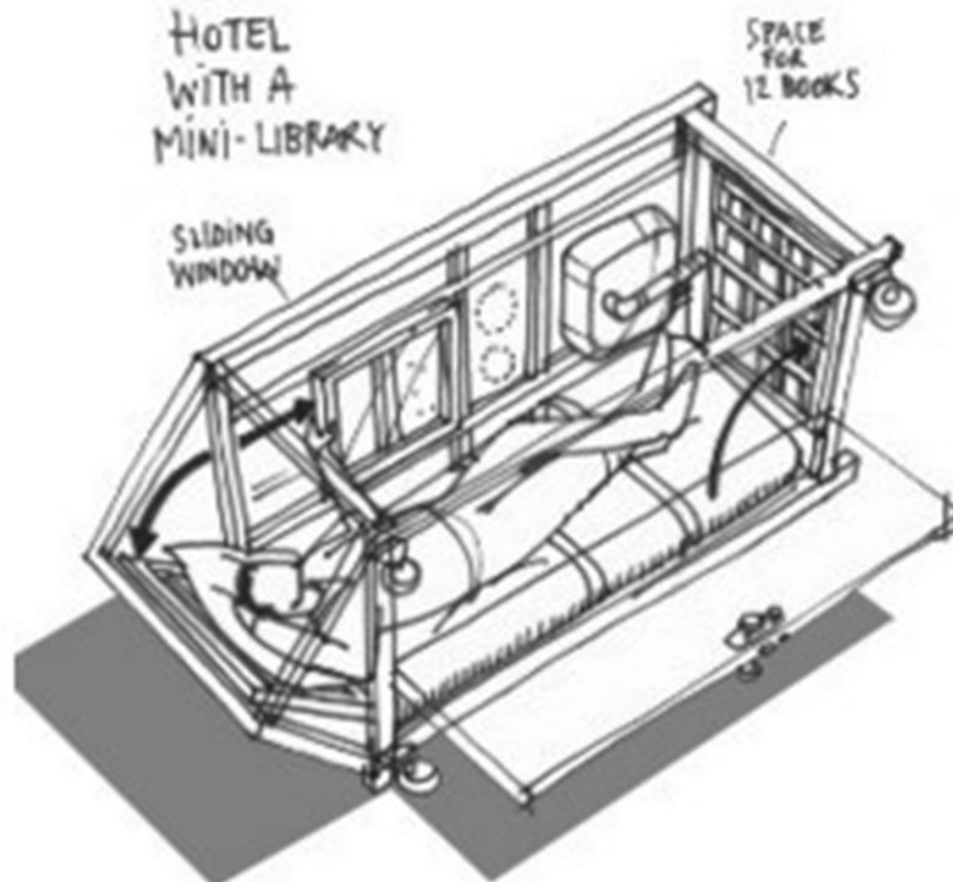
... OFFICE



TICKET  
COUNTER



HOTEL  
WITH A  
MINI-LIBRARY



... COOKING  
STUDIO



# 1-SQM-House

쇼핑리스트 (단위 cm)

구입해야할 것들:

미송각목 S 3.4cm x 3.4cm (정사각형)

4개 (a1) 136cm (문높이)

2개 (a2) 126.2cm (문높이  $-(2 \times 3.4)$ )

13개 (b) 63.2cm (너비70  $-(2 \times 3.4)$ )

4개 (c) 93.2cm (길이100  $-(2 \times 3.4)$ )

4개 (d) 73cm

1개 (e) 56.6cm (60cm-s)

1개 (f) 33.2cm (40cm  $-(2 \times 3.4)$ ) 의자용

벽 (자작나무), 두께 W 4mm

2개 [A] 136cm x 70.8cm

(DH x B + 2 x W)

2개 [B] 38cm x 136cm

(40cm - 1 / 2 x S) x (DH)

1개 [C] 66cm x 61.7cm

(DH / 2 - 1 / 2 S) x (60 + 1 / 2 S)

2개 [D] 70cm x 75cm 지붕

1개 [E] 75cm x 75cm 탁자

1개 [F] 100cm x 70cm 바닥

보드 (멀티플렉스), 두께 6mm~8mm

1개 [G]

63.2cm x 100cm (B - 2S) x (L) 바닥

1개 [H] 70cm x 33.2cm (B x f) 의자

1개 [I] 60cm x 36cm 탁상

1개 [J] 23cm x 29cm 탁상 콘솔

문 (멀티플렉스), 두께 12mm

1개 약 136cm x 60cm

추가품목

미송각목 S 3.4cm 문 설계용

(2 x 136cm and 2 x 54cm) /

자물쇠 1개 / 힌지 2개

나사 (SPAX, Z2)

약 100개 3.5 x 50 프레임용

약 100개 3.5 x 30 벽용

바퀴

4개 바퀴 전체 높이 10cm, 360도 회전

20개 나사 (6.0 x 50) 와 20개 조임판과

너트

창문

1개 아크릴 유리 약 66cm x 62cm

(모든 것이 다 완성된 후 창문을

주문하세요)

# 1-SQM-House

The smallest house in the world.

For those, who believe, that the world get's better if we build more, buy less.

Invented 2012 by Le-Mentzel, Berlin.

## **You want it? Build it!**

Plans are free. Change the size and make it yours.

### You need

- 20 meters of wooden timbers (3.4 cm x 3.4 cm) for 250 Euro (300 Dollars)
- Wall Coverings (Sperrholz)
- 200 Screws
- 4 wheels
- 1 acryl-glass window
- 1 door
- 1 day of your lifetime to build it

### Tools

- Screwdriver
- (Japanese) Saw











# OpenStructure

# 10





# What.

## What is the project about?

The OS (OpenStructures) project explores the possibility of a modular construction model where everyone designs for everyone on the basis of one shared geometrical grid. It initiates a kind of collaborative MECCANO® to which everybody can contribute parts, components and structures.

It hereby envisions a new standard for sustainable design that facilitates the re-use of parts and components and allows us to build things together.

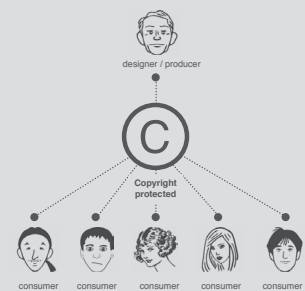
The OS ecosystem is built up according the Wikipedia model, where different people all contribute to a bigger thing (rather than each building their own thing) with this difference that in the OS system people don't contribute articles, but parts.

## The basic concept

The OS (OpenStructures) project explores the possibility of a modular construction model where everyone designs for everyone on the basis of one shared geometrical grid. It initiates a kind of collaborative MECCANO® to which everybody can contribute parts and objects.

## The classical design model

Hierarchal / vertical / centralized / top down / copyrighted.

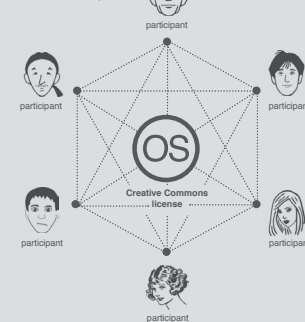


- one entity designs a complete system for all
- the end user is passive  
he / she mainly consumes
- the product is static  
the end user can't really change or improve the object or system because it is copyright protected

## The OpenStructures design model

Network based / horizontal / decentralized / bottom up / partly copyrighted.

Following digital open-source models like Linux or Wikipedia



- all design a small part of a common system
- the end-user is active  
he can participate in the design- and production process by adding or reviewing parts and structures
- the product is dynamic  
the end user can adapt or improve parts or structures

# Why.

## What is its purpose and goal?

### What is the purpose of this project?

The purpose of this experiment is to investigate what the opportunities and limitations of an open modular system are and under which conditions it will prove to be most efficient and favorable.

### What is the goal of this project?

The ultimate goal is to initiate a universal, collaborative puzzle that allows the broadest range of people – from craftsmen to multinationals – to design, build and exchange the broadest range of modular components, resulting in a more flexible and scalable build environment for all contributors.

### What is the potential of this project?

An open modular system has the potential to generate flexible and dynamic puzzle structures rather than uniform modular entities. It will generate objects that have the ability to evolve and integrate old, new, cheap, expensive, original, bootlegged, manufactured and crafted components over time.

It will introduce variety within modularity, hereby not only stimulating re-use cycles of various parts and components but also enabling collaborative (and thus exponential) innovation within hardware construction.

### Why another modular system?

Because nature itself has proven that in complex systems, modular designs are the ones that survive. About 500 million years ago, single-celled organisms were able to advance into multi-celled ones that offered far superior characteristics, and therefore, were able to spur evolution.

As human beings, with trillions of modules (cells) per person, we are modular from head to toe and experience the benefits of modularity every single day. Modular cell structures enable us to scale and grow, simply by adding new modules (cells) that interact with existing ones, using standard interfaces.

They have the ability to rapidly adapt to their environments. By adding, subtracting, or modifying cells, incremental design changes could be more quickly tried and either adopted or rejected.

And finally, they enjoy the benefits of fault tolerance. With cell redundancy, individual cells can fail without degrading the system, other cells carry on while repairs are made. (source: Neil Rasmussen, Suzanne Niles, Modular Systems: The Evolution of Reliability)

But also in man-made structures, modularity is a known phenomenon. In an attempt to streamline efficiency and enhance structural flexibility, architects and designers have cranked out countless models for modular structures in the past. Nevertheless, we find ourselves today with an abundance of closed, incompatible modular systems that often generate impersonal uniform structures.

So, if we want to improve the concept of modularity, we need to shift from closed and hierarchical systems, in which each system introduces its own standard, towards more open and decentralized systems in which common standards are shared.

Within the realm of digital creation, we have already witnessed the emergence of such open architectures. These digital constructions are no longer invented and designed by one person or entity, but rather take shape through the minds and contributions of all its peers. Global collaborative efforts, like Wikipedia, are challenging and outperforming the individual achievements of some of our brightest, leaving us with no other choice than to acknowledge the limits of our individual projects and participate in larger collective processes.

Physical open-source codes will allow us to build our hardware like we are currently constructing our software.

Shared design guidelines will envision closed-loop systems, in which old components will feed new frameworks, thus creating an endless variety of hybrid structures and facilitating the re-use of individual components. The resulting 'open' structures, ranging from simple cabinets to multistory buildings, will thus become truly scalable, flexible and diverse.

If we want to communicate we need to use the same vocabulary, if we want to exchange files, we need to work with the same formats. If we want to co-create, we need to build with the same bricks.

### Why now?

Because our contemporary networked infrastructure makes it easier for us to exchange and share.

Next to that, easy-to-use 3D software (like Google Sketchup) and affordable computer steered manufacturing techniques (like lasercutting and 3D printing) enable us, as non-professionals, to design and reproduce complex objects at home. These current developments are radically democratizing the design- and production process and force us to rethink the way we make things.

It's exactly into this new, widely dispersed design- and production power that the OS model wants to tap by initiating a system that demands input from the end user in order to evolve and expand.

## Tapping into the crowds.

With online forums, free and easy-to-use 3D software and affordable, computer steered production techniques the end user now has all the tools he/she needs to get truly involved in both the design- and production process.

# How.

## How do I participate?

Everybody who wants can contribute to the OS project by adding their own modular parts or structures on to the OS parts database.

### 1. Design and produce a part from the OS grid

In order for these new parts to be compatible with the existing ones they need to be designed from the OS grid (also see next column: 'How to apply the OS grid?'). And because all resulting designs are conceived as interdependent, dynamic puzzles, they should be designed for disassembly.

To streamline this design process a number of common design guidelines have been developed. These are rules of thumb that need to be considered while designing any OS part or structure. (see below)

### 2. Upload and trade your part on the OS database

Once parts are designed and produced they can be uploaded on to the online OS database (www.openstructures.net). This database is the digital marketplace for all parts and structures that were created by applying the OS grid. It also serves as a central sharing point for the whole OS community.

All part designs can be up- or downloaded in order to be discussed, reviewed, ranked, copy/pasted and traded among its users. This vivid exchange of parts will allow the parent structures to adapt, expand or shrink according to current needs. It will also stimulate continuous upgrades over time through a phased interchange of parts.

## The OS design guidelines.

### 1. Design parts and structures from the grid

When designing a part, position the assembly points of your part according to the grid, and choose dimensions that are derived from the OS grid in order to maximize compatibility with other OS parts.

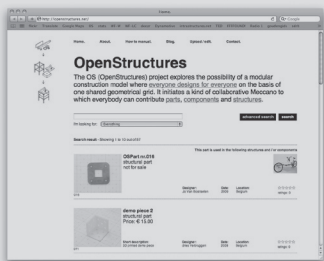
### 2. Assemble for disassembly

When assembling parts, favor assembly techniques that allow deconstruction without damage or loss in order to facilitate the re-use of individual parts.

### 3. Favor recyclable materials

When choosing materials, favor 100% synthetic or natural recyclable materials for your parts in order to support infinite material cycles.

## The online OS database.



www.openstructures.net - homepage

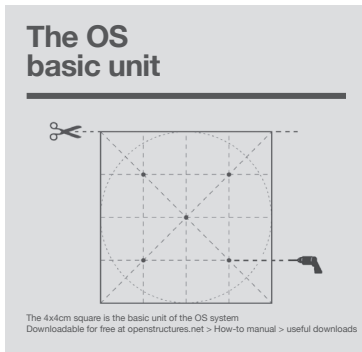
## How to apply the OS grid?

### The OS grid

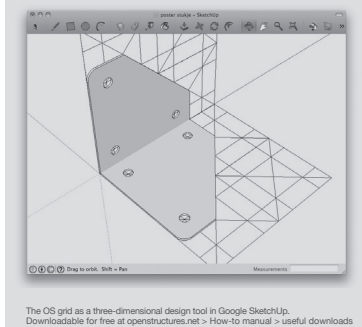
The OS grid is the centerpiece of the whole OS system. It's the common metrical tool that is shared among all participants, which allows them to design interchangeable parts, components and structures independently from each other.

This grid is freely accessible on the OpenStructures website and is either used physically as a ruler or digitally as a three dimensional grid.

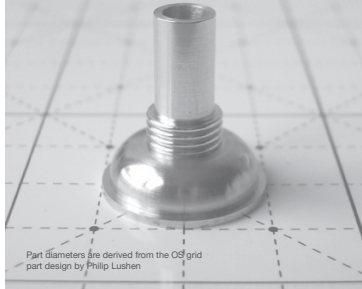
The OS grid is built up out of 4x4cm squares. The borders of these squares mark the cutting lines, its diagonals mark the assembly points and its enclosed inner circles define common diameters. (for more info go to openstructures.net > how-to manual > OS grid)



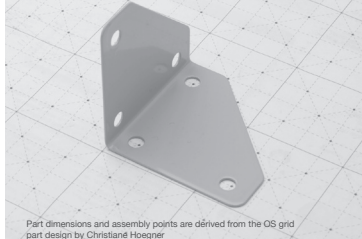
## OS digital design tools



## OS part sample 1



## OS part sample 2



## Frequently Asked Questions.

### Who can participate?

Everybody.

### Does every individual part of my object needs to be designed from the grid?

No, Within the database we make a distinction between OS parts and Hybrids.

OS Parts are building blocks that were designed within the OS dimensional framework. Hybrids are objects that contain OS parts but that are not fully designed within the OS grid.

Both can be uploaded on to the database.

### How to trade OS designs?

All parts and objects can be traded online at openstructures.net

### How to recognize an OS design?

OS parts can be recognized on sight by their typical assembly point patterns and / or dimensions. Apart from that, every part receives a serial number, a QR-code and an image of the OS logo after uploading it on to the OS database.

The designer of the part can then decide to add this OS logo or serial number onto the part. This will then allow other users to look up additional part information by typing in the serial number on the OS database.

The QR-code is an optional shortcut that hyperlinks people directly towards the online profile page of the part.

### How to interact with other designers?

Various opportunities to communicate with other participants are offered on the OS database. You can contact designers, leave comments, rate parts and structures etc.

### How is the OS model different from existing modular systems?

Unlike most existing modular systems, the OS model doesn't follow the classical top-down approach in which one person designs a complete (modular) system for everybody, but rather favors a system where everybody designs a small part of one shared system.

### Doesn't the OS model envision a totalitarian, all-encompassing grid?

The OpenStructures project doesn't impose its grid system, it proposes it. It invites people to experiment with it and hopes to learn from their outcomes.

Rather than trying to spur a radical revolution, imagining whole OS cities from scratch, it puts its beliefs in the project's evolution, in the emergence of organic OS communities over time.

The OS model doesn't aim at convincing everybody but hopes to unite a tightly knit network of likeminded enthusiasts. If the OS grid proves to be relevant to people it will be picked up and expand, if not it will slowly dissolve.

### Isn't the OS model very restricting?

Modularity is a dimensional restriction by definition, but it also offers new opportunities because of the shared dimensional framework it proposes. And within this restriction, variation is endless. The OS project wants to investigate under which conditions such a shared framework will be most favorable.

### Isn't the OS model very primitive?

Every evolutionary process started with only a few blocs to build from, frequently resulting in rather primitive designs. But with every cross-pollination more pieces were created, and with every piece more complexity was added to the overall system, finally sophisticated constructions and creations emerged.

Since the OS system is conceived as an evolutionary model, it doesn't consider its designs to be static end results, but rather sees them as updates of existing versions, phases within a broader cycle. Apart from that, the OS model wants to introduce variety within man-made modularity, welcoming different signatures to the design of its individual parts, ultimately aiming at producing a modular system that is so diverse that its modular characteristics can hardly be observed.

### Why would I want to use this system?

The OS model will offer a more flexible environment to the end user, allowing his built environment to adapt (grow, shrink or update) more easily.

Increased compatibility will also facilitate the re-use of components, hereby prolonging their life cycle and reducing their environmental impact.

Next to that, the consumer will develop a different, more active relation with his or her products, no longer judging objects for what they are, but rather imagining what they could become.

If we shift from project to process, each design object becomes a prototype, an update, a new version. Failure becomes opportunity and criticism becomes feedback, a perspective that is needed to further develop and improve our ideas. If we see our society as 'under construction', rather than 'accomplished', we will free up space for progress.

### How do you see this project evolving?

Currently the OS model is being 'beta tested' by both students, professionals and enthusiasts in order to detect possible bugs and improve the overall system. The resulting parts, components and structures not only reveal the limits of the system but also

demonstrate various synergies that emerge between different components. As a whole it displays a vivid patchwork of various personalities, materials, inspirations and motivations.

During several workshops and commissions, a number of people were introduced to the concept after which the first prototypes emerged.

These prototypes are now passed on to again other people who are building further on the ideas and designs of their precursors. The resulting continuous collaborative editing process will allow the OpenStructures to evolve and self-correct over time. Concept outlines will be adjusted, objects designs improved and individual parts added or perfected within structures that constantly expand, shrink and adapt.

### Notes:

The OS guidelines are conceived as a living document, meaning that it is open for edits and improvements.

All comments and remarks concerning this document can therefor be sent to [info@openstructures.net](mailto:info@openstructures.net)

The OpenStructures project is a collaborative process.

It was originally conceived by Thomas Lommée at the Institute without Boundaries in 2007 and is now being further developed and tested by Lommée's design studio Infrastructures in association with various partners.

The initial experimental phases of this design research have received both productional and structural support from Z33, House for contemporary Arts. The first outcomes of these phases have been presented at Z33 in september 2008.

For more info on the project, please visit:

[openstructures.net](http://openstructures.net)  
[infrastructures.net](http://infrastructures.net)

Supported by

**Z33**  
House for contemporary art

## From project to process.

Continuous collaborative editing will allow the OpenStructures project to evolve and self-correct over time. Concept outlines will be adjusted, objects designs improved and individual parts added or perfected within structures that constantly expand, shrink and adapt.

It will introduce variety within modularity, hereby not only stimulating re-use cycles of various parts and components but also enabling collaborative (and thus exponential) innovation within hardware construction.

## Thinking inside the box.

If we want to communicate we need to use the same vocabulary, if we want to exchange files, we need to work with the same formats. If we want to co-create, we need to build with the same bricks.

[www.openstructures.net](http://www.openstructures.net)



# Common design guidelines

will enable everybody to design compatible parts, components and structures independently from one another

## Rules of thumb

---

All OpenStructures should be conceived as **interdependent, dynamic puzzles**.

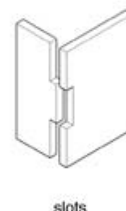
This means that they should be designed for disassembly and according to the same dimensional framework (the OS grid).

In order to facilitate their design processes several design guidelines have been developed. These are rules of thumb that need to be considered while designing any OS part or component.

(Scroll down for more info)

### Rule of thumb No 1: design for disassembly

Favor assembly techniques that allow deconstruction without damage or loss in order to facilitate the re-use of components.



etc.



etc.

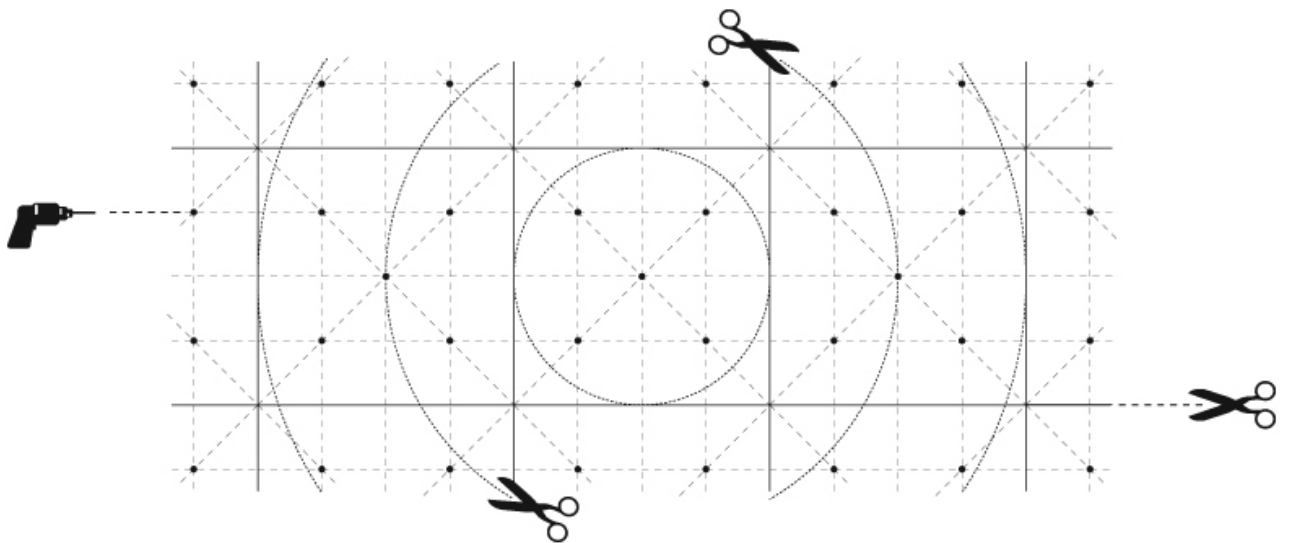
### Rule of thumb No 2: design with recyclable materials

Favor, whenever possible, 100% synthetical or biological recycable materials for your parts and components in order to support infinite material cycles. (after disassembly)



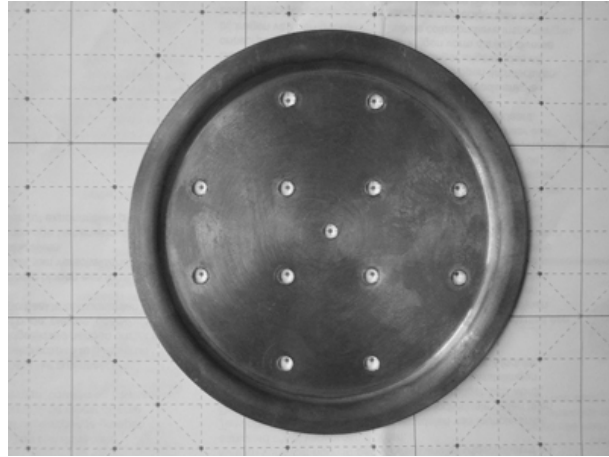
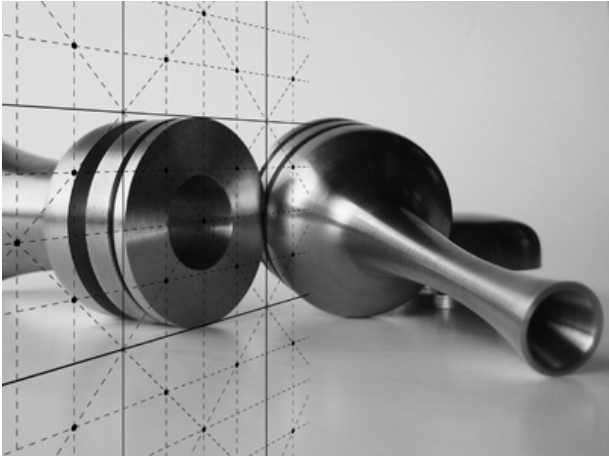
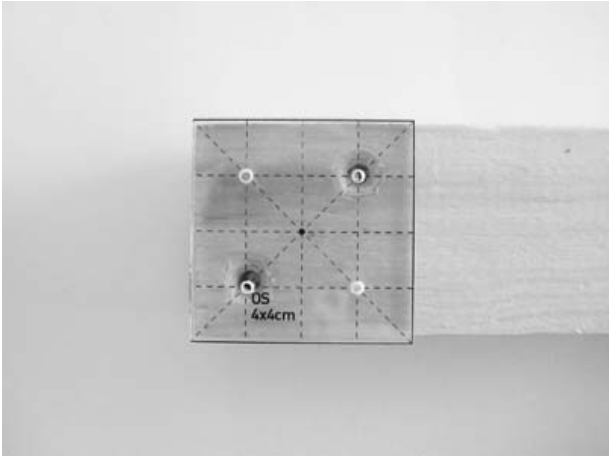
### Rule of thumb No 3: design from the OS grid

Use the OS grid as a design tool when choosing dimensions, assembly points or interconnecting diameters in order to make your parts compatible with those of others.



- A. favor part dimensions that are derived from the OS grid
- B. position assembly points on parts according to the OS grid
- C. choose part diameters that are derived from the OS grid

Part samples



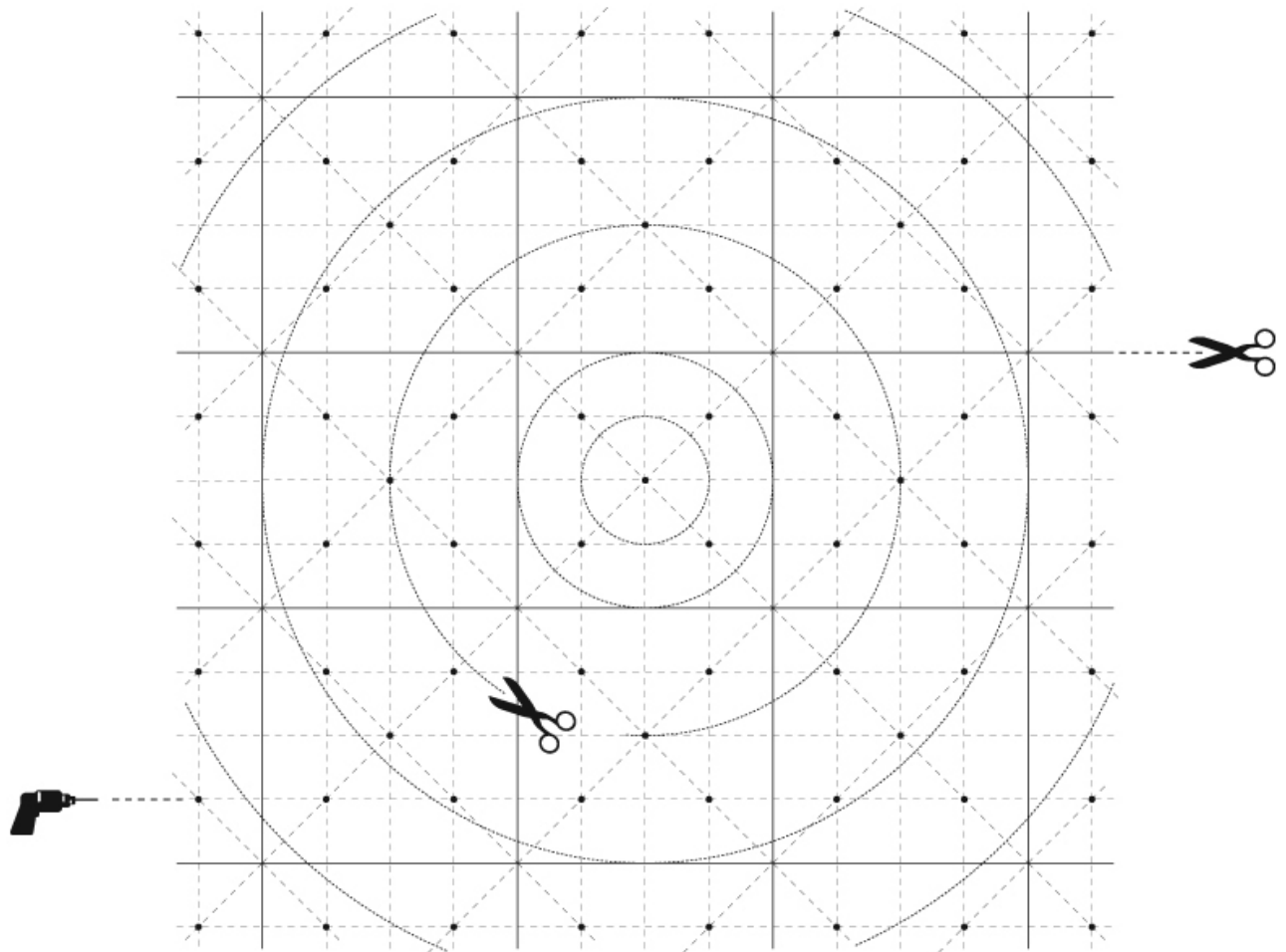


## The OS grid

### Grid definition

The OS grid is the centerpiece of the whole OS system. It's the common metrical tool that is shared among all participants, which allows them to design interchangeable parts, components and structures independently from each other.

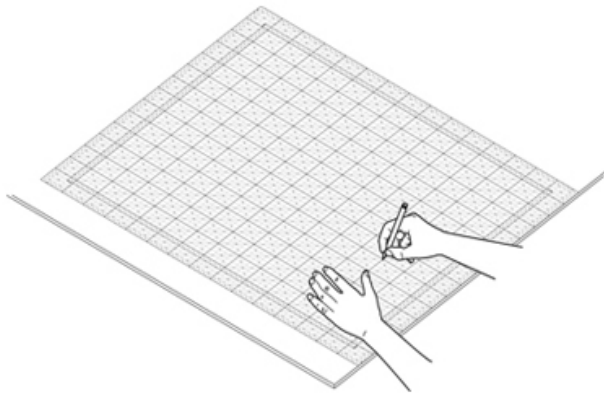
The grid is built up out of 4×4cm squares. The borders of these squares mark the cutting lines, its diagonals mark the assembly points and its enclosed inner circles define interconnecting diameters.



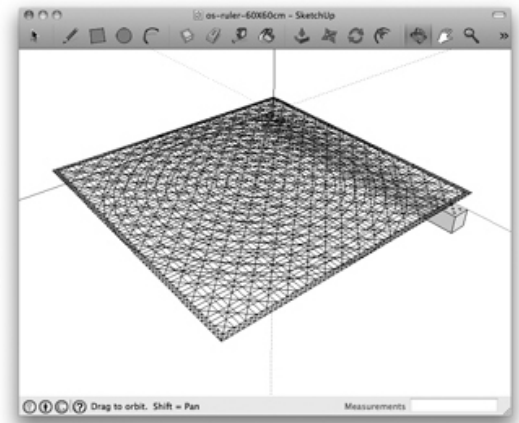
## The OS rulers

### Definition

To facilitate the design- and building process of open modular objects, an OS-ruler of 60×60cm has been developed next to the basic 4×4cm square. This will allow every participant to apply the grid as a shared design tool while generating new parts, components or structures.



The OS ruler as an analogue designtool



The OS ruler as an digital designtool

The OS rulers can be applied both physically and digitally as measuring- and design tools. They are free for all and can be obtained and used by everybody at all time.

#### Note

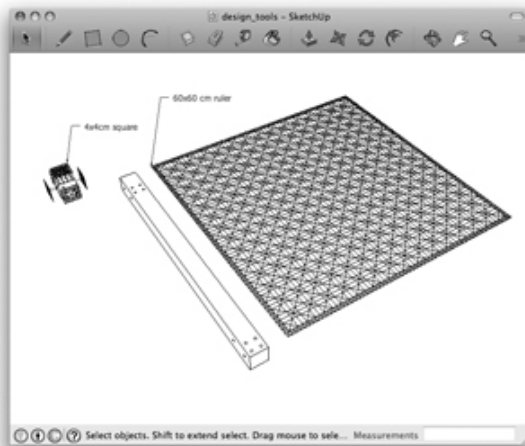
*Since 60×60cm is already a frequently used standard within both interiors and logistics, the 60×60cm will be especially suitable for designing interior structures. It will also enable the OS-model to integrate with the existing and thus hybridise our current built environment with new Open Components and Structures.*

### Common design guidelines

will enable everybody to design compatible parts, components and structures independently from one another

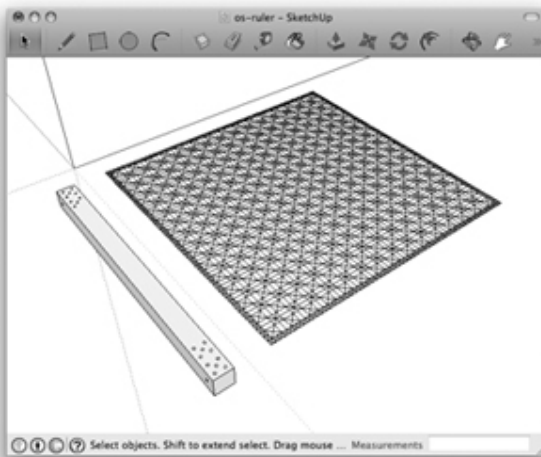


## Different ruler types



### The 4×4cm square

The 4×4cm square is the most generic ruler and is applied at all scales, from the design of little parts all the way to the design of superstructures.



### The 60×60cm ruler

The 60×60cm ruler is mainly applied for the design of interior structures

*note:*

*The OS project is currently focussing on generating parts, components and structures that are directly related to our daily lives (ranging from tools to small living units). Therefor the rulers that are mentioned are designed especifically to generate those kind of pieces and puzzles. Of course one could imagine many more rulers in many other domains (eg. OS-rulers for vehicles or logistical purposes), but for now the OS-rulers are limited to the two that are described below in order to prevent the project from sprawling into too many guidelines and frameworks.*

## How to use the grid?

The OS grid can be applied in 3 different ways: (scroll down for more info)

- by choosing the **dimensions** for your parts or components according to the OS grid
- by positioning **assembly points** on your parts or components according to the OS grid
- by choosing **interconnecting diameters** for your parts or components that are derived from the OS grid

In order for a part to be OS compatible at least one of these three conditions should be fulfilled.

Several combinations (eg. applying both the OS dimensions AND the OS the assembly pattern to a part) are of course also possible but not obligatory. (see part samples)

### A. Choosing dimensions according to the OS grid

If you choose to apply the OS grid for the dimensions of a part, at least one of the measurements of this part (length, wideness and thickness or height) should correspond to either 0,125cm / 0,25cm / 0,5cm / 1cm / 2cm and multiples of 2cm in order to be compatible with other parts. (see part examples)

The 4×4cm square or the 60×60cm ruler can hereby be applied as measuring tools.

*image: part examples*

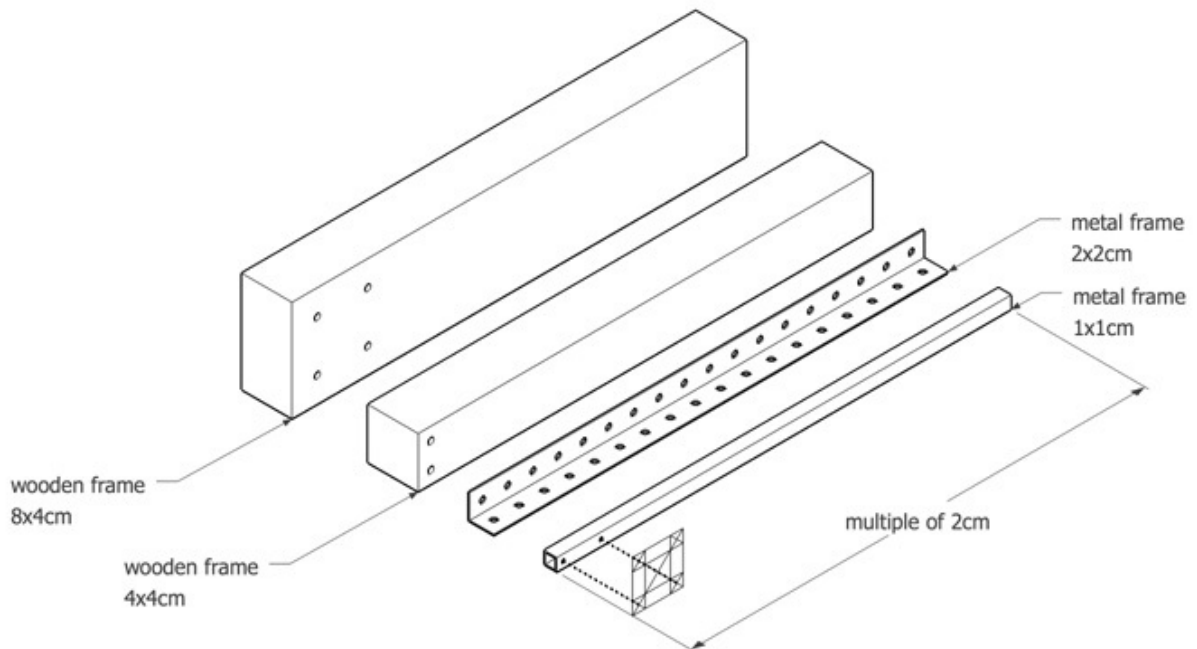




image: length, width, height sequence for parts based on the 4×4cm square

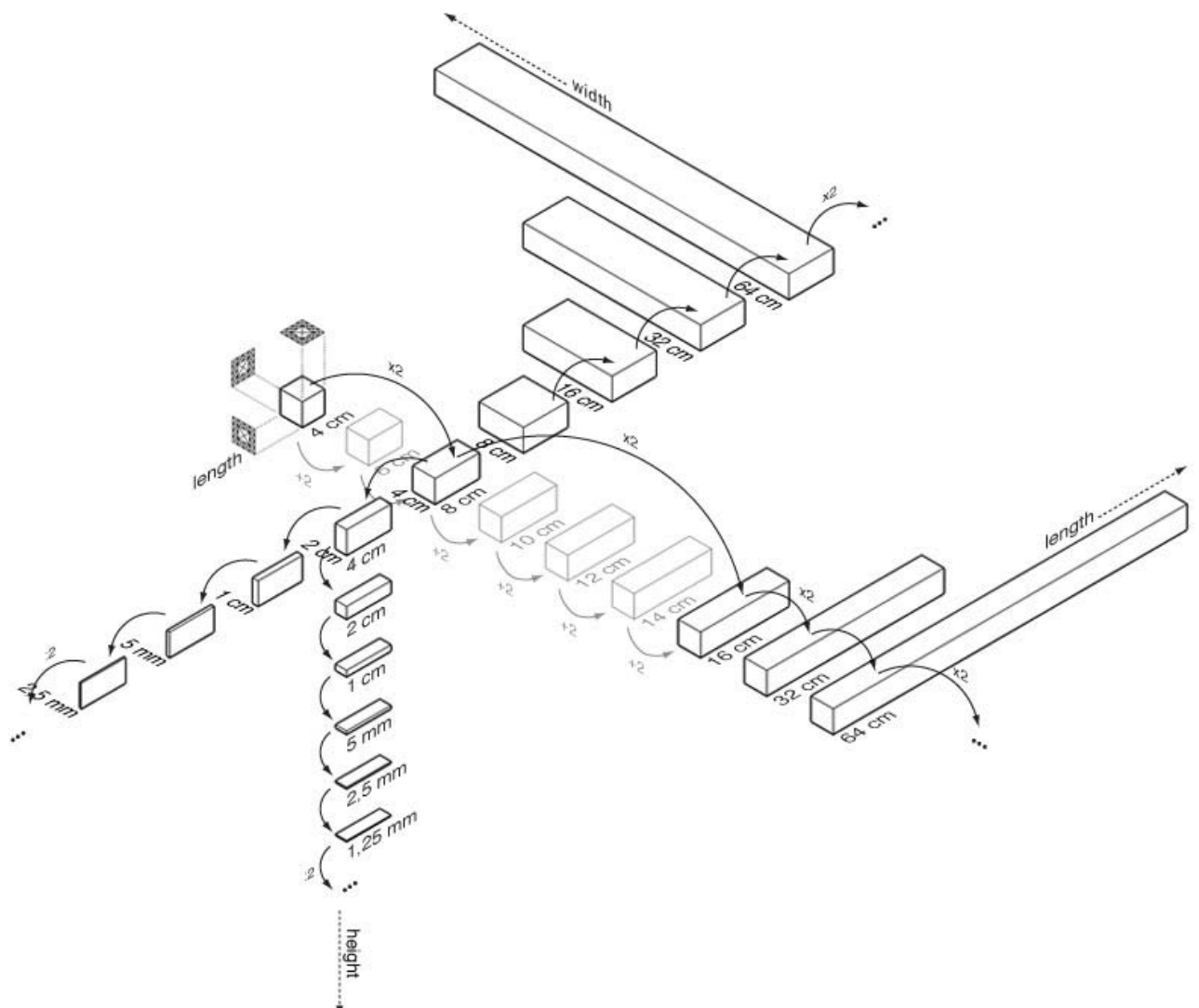
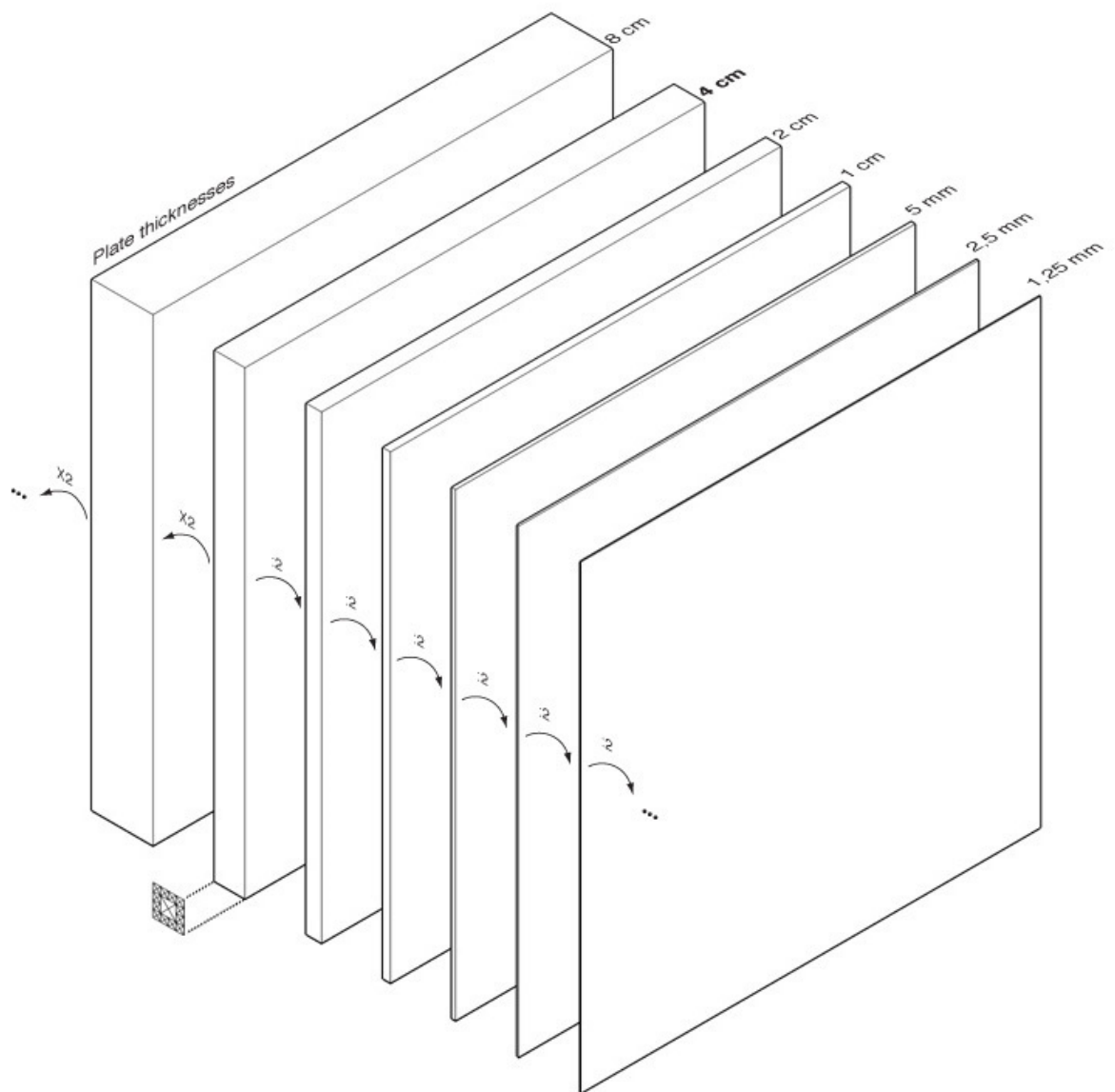


image: thickness sequence for construction plates based on the 4×4cm square

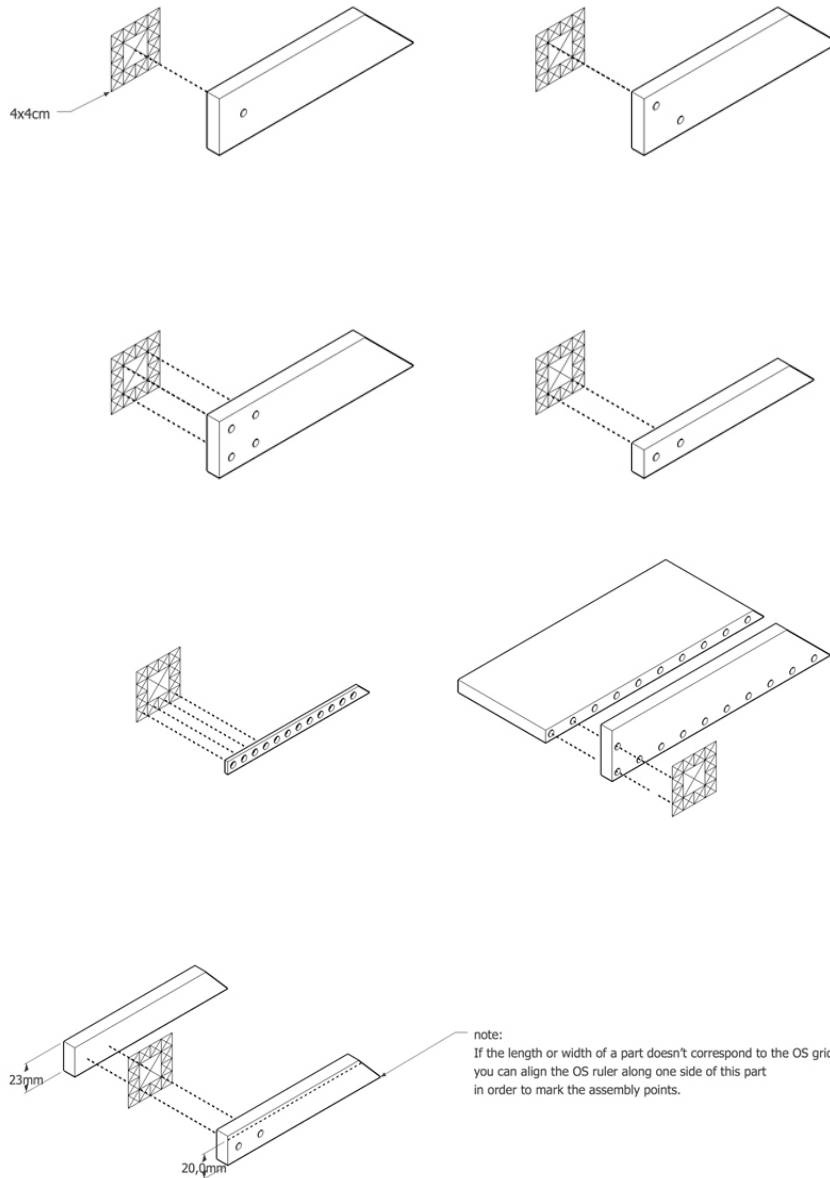




## B. Choosing assembly points according to the OS grid

If you choose to apply the OS assembly point pattern when designing a part, the assembly points on this part have to be positioned according to the grid in order to be compatible with other parts. Assembly points can be marked by using the 4×4cm square or the 60×60cm OS-ruler.

*image: assembly pattern samples*

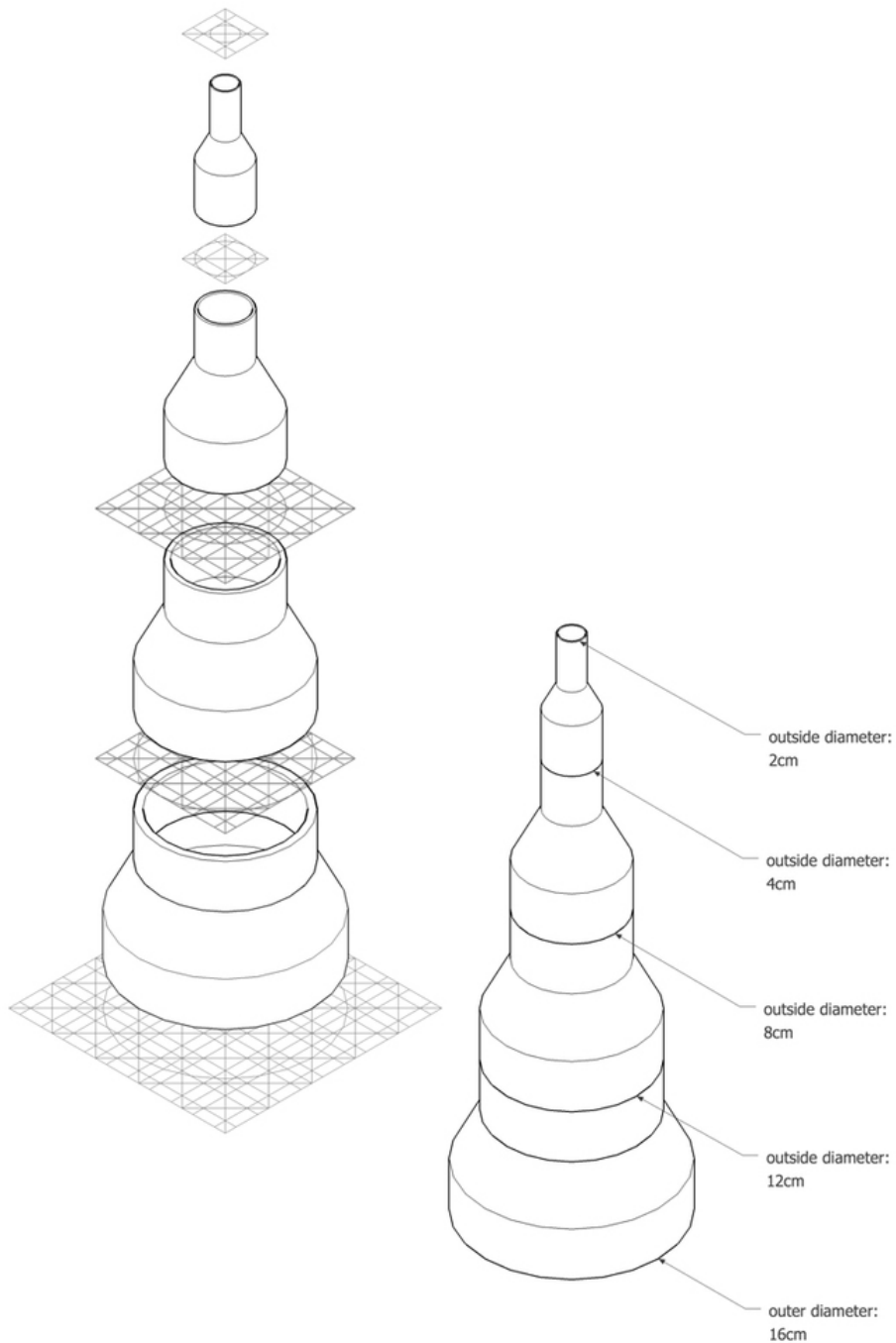


### C. Choosing interconnecting diameters according to the OS grid

If you choose to apply the OS interconnecting diameters when designing a part, the outer diameter of your part should be either 20mm, 40mm or a multiple of 40mm in order to be compatible with the diameters of other parts.

Diameters can be marked by using the 4×4cm square or the 60×60cm OS-ruler.

*image: part samples with integrated OS diameters*

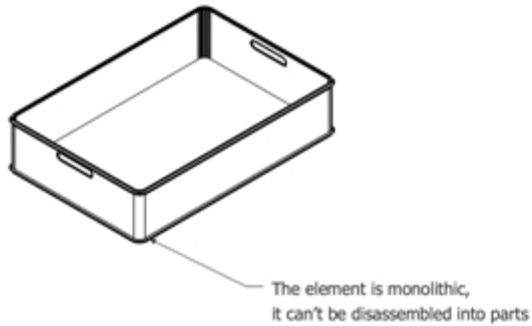


## Different compatibility levels within components:

---

We can distinguish different compatibility levels, different intensities within the use of the grid.

(scroll down for more info)

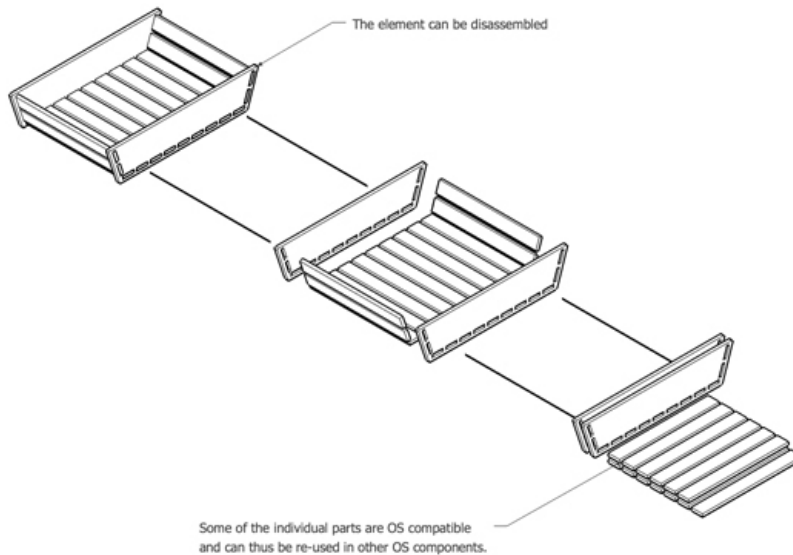


### Level 2 (middle level)

- The element can be disassembled

Some of the individual parts are OS compatible (either through its dimensions, its assembly points or its diameter) and can thus be re-used in other OS components.

*image: level 2 sample*



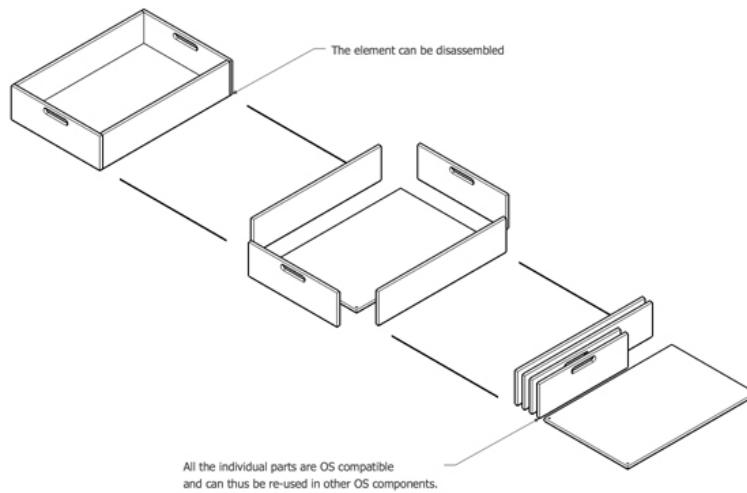


### Level 3 (highest level)

- The element can be disassembled

All the individual parts are OS compatible (either through its dimensions, its assembly points or its diameter) and can thus be re-used in other OS components.

*image: level 3 sample*



Overall all these different component types have specific, grid-related measurements and assembly points. Some of them are explained in detail below.

## Structural build-up of OS structures

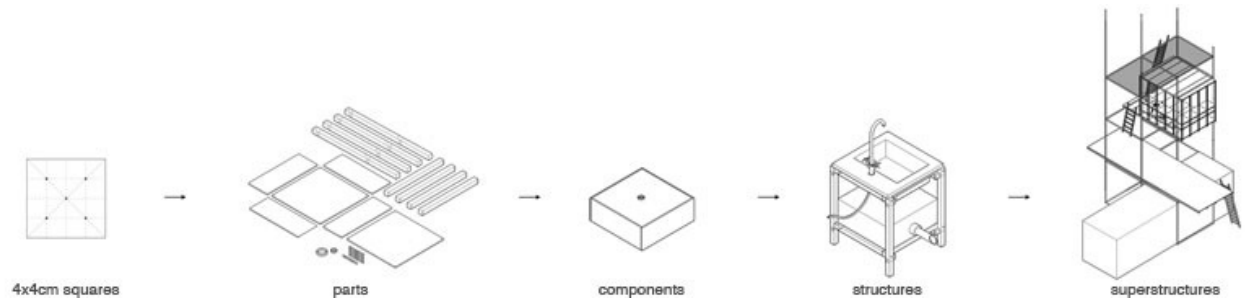
The structural build-up of all open structures follow the modular build-up of our own human body.

4×4cm squares generate parts (like panels or beams).

Parts are assembled into functional components (like fridges or drawers).

Components are put together and interconnected into structures (like kitchens or bathrooms).

Several structures are combined into superstructures (like a house).



Just as ...

...biological cells generate tissues (like skin tissue)

An assembly of tissues form a functional organ (like a stomach)

Collaborating organs form a system (like the digestive system)

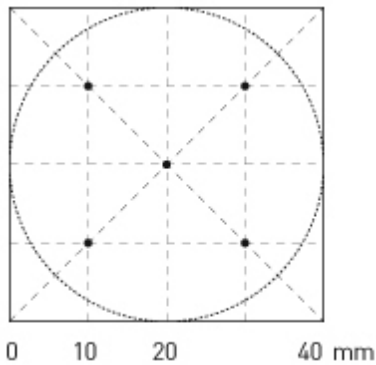
A set of complementary systems form an organism (like a human being)



## The OS metrical unit

---

### The 4×4cm square as a cell (scroll down for more info)



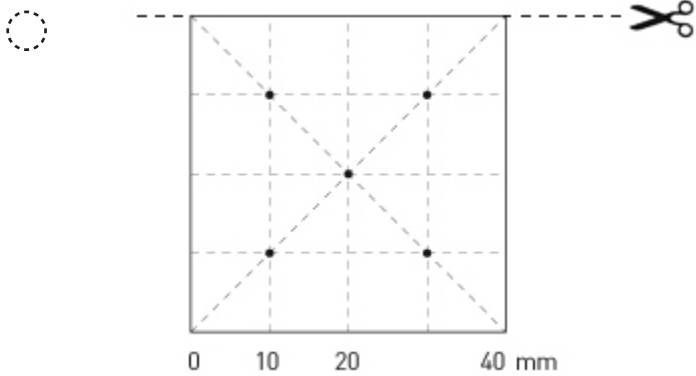
The 4×4cm square can be understood as the basic block of the OS (OpenStructures) system. It is the central metrical unit that is shared among all OS designers which allows them to design compatible OS components independently from each other.



Just as a biological cell which is considered the structural and functional unit of all known living organisms. It is the smallest unit of an organism that is classified as living, and is often called the building bricks of life. (Wikipedia)

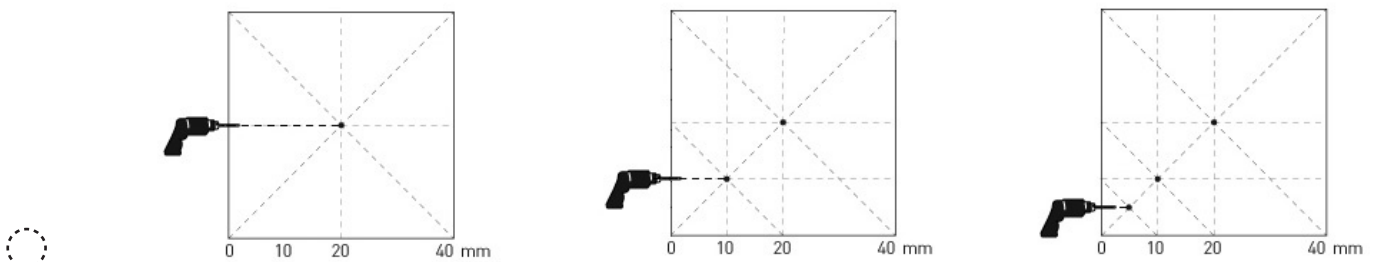


## Cutting lines



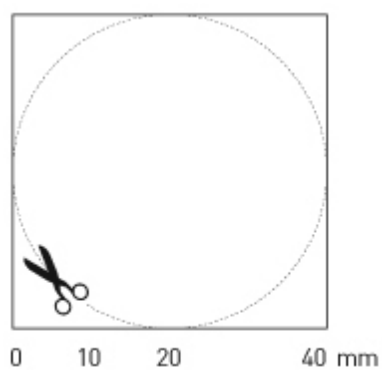
The borders of these squares mark the cutting lines. (multiples of 2cm)

## Assembly lines



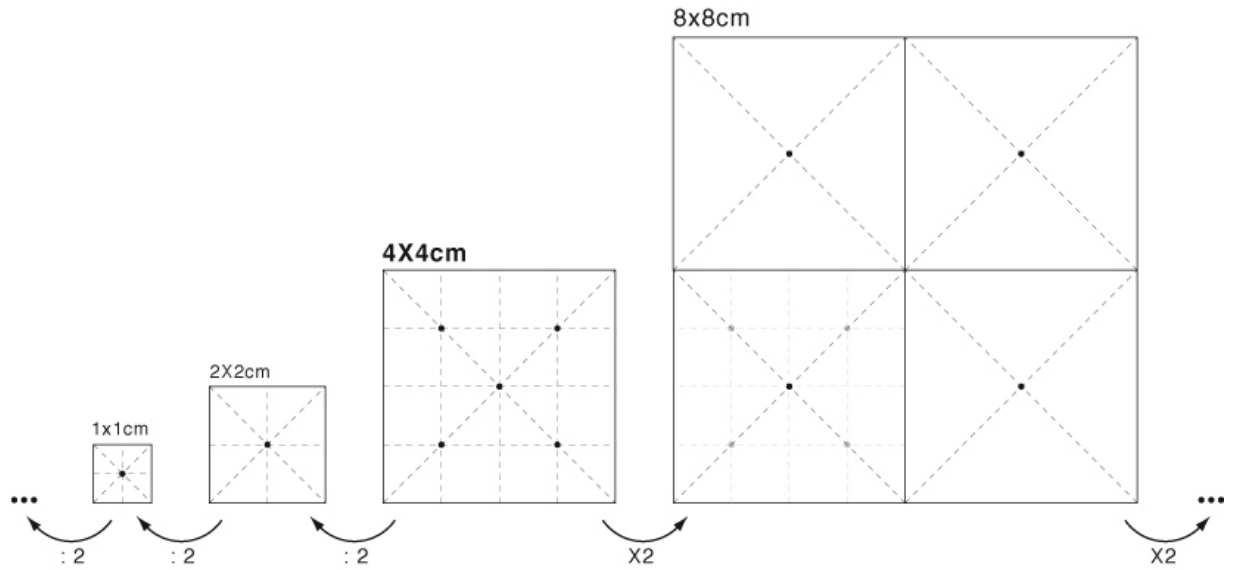
its diagonals  
mark the assembly points.

## Enclosed diameters



The enclosed inner circle marks the diameter. (diameters are multiples of 4cm)

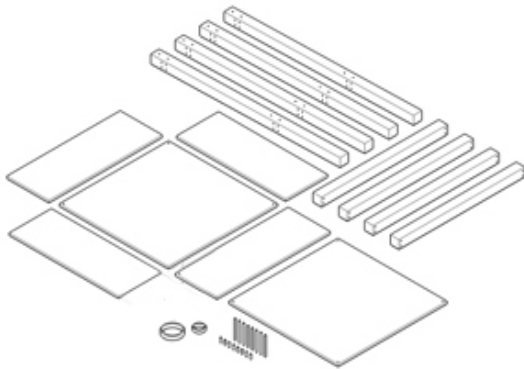
## Scalability



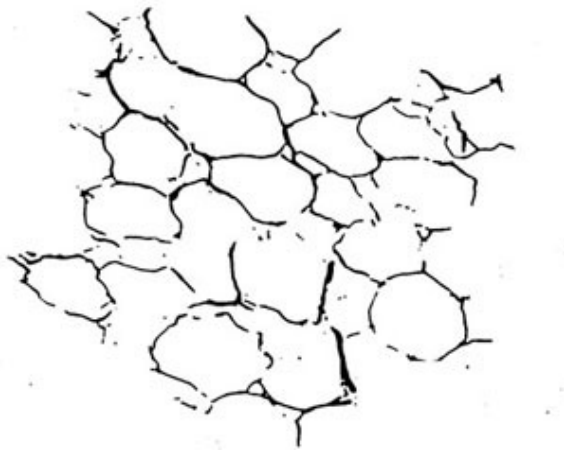
The proportions and assembly points of the 4x4cm square are designed specifically for scalability. This means that the square can be scaled up or down – through duplication – without losing compatibility between different scales. This will allow the OS-model to generate structures on totally different scales (from tools to houses) that will still have interchangeable parts and components.

## OS Parts

**Parts as tissues** (scroll down for more info)



Open parts can be understood as different configurations of 4×4cm squares, resulting in various building blocks that are all generated within the OS dimensional framework. They have no function on their own but become functional in combination with other parts.



Just as a tissue which is a cellular organizational level intermediate between cells and a complete organism. Hence, a tissue is an ensemble of cells, not necessarily identical, but from the same origin, that together carry out a specific function.

### Different part types

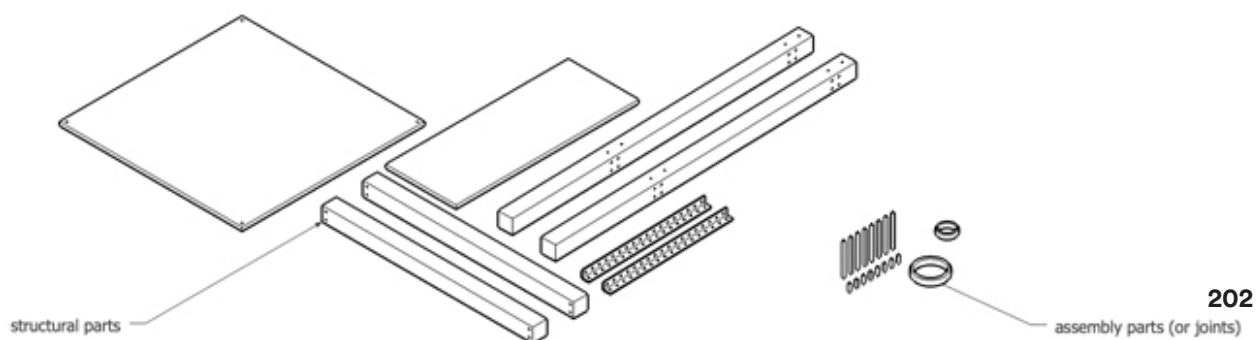
We can distinguish two part types, namely structural parts and assembly parts.

#### *Structural parts,*

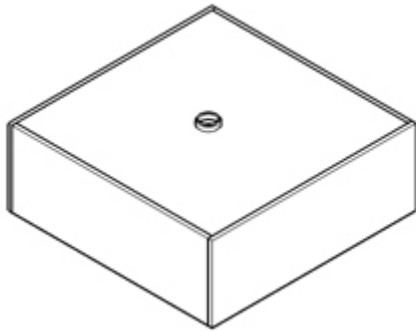
like panels, beams etc. together shape a functional component.

#### *Assembly parts or joints,*

like screws, bolts or pins, assemble one structural part to another







Open **components** can be understood as parts that are assembled into functional, self-sustaining entities.



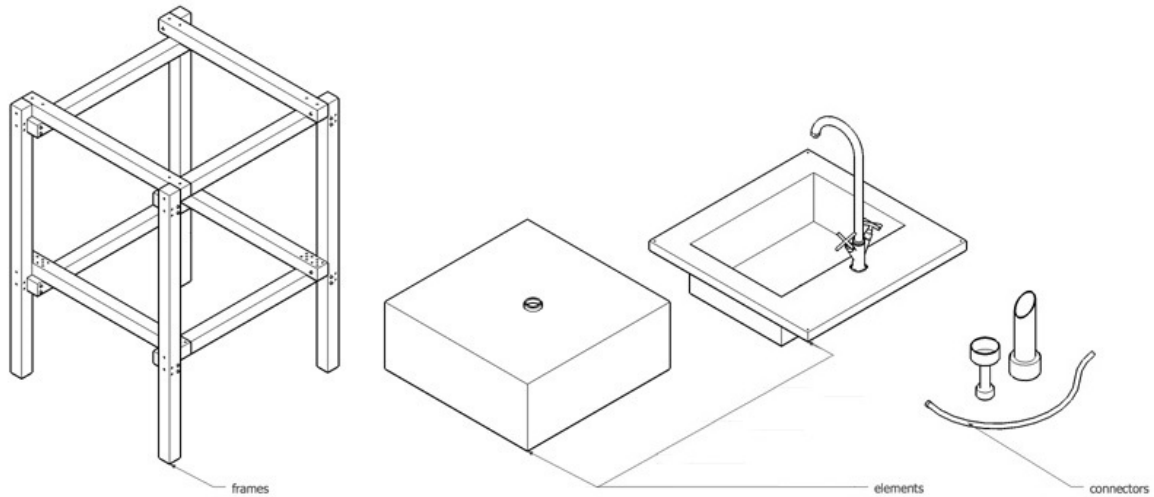
Just as an **organ** which is formed by the functional grouping together of multiple tissues (Wikipedia)

## Different component types

We can distinguish various component types,

For example:

within interior structures we can distinguish frames, elements and connectors.

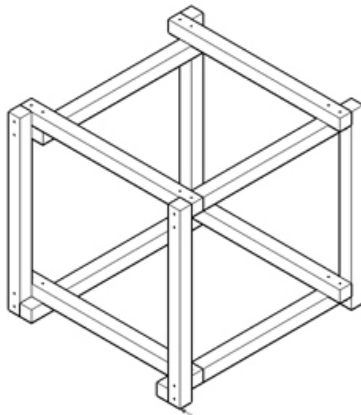


*Frames* have a supporting function, *elements* fill in other specific functions, *connectors* facilitate the exchange of water, gas, electricity or wireless signals between two or more elements.

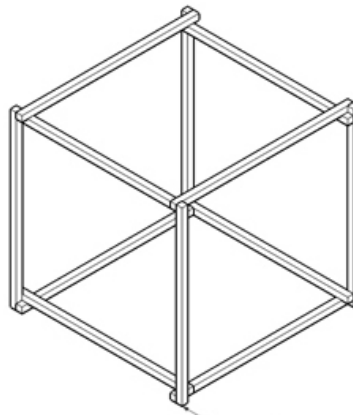
Within frames, several frame types can be distinguished,

For example:

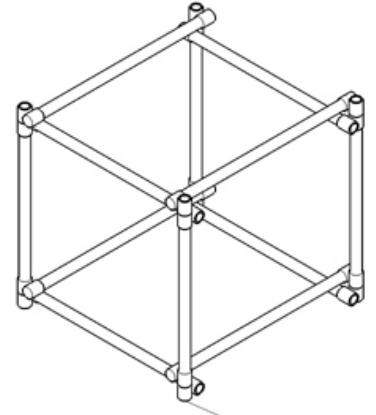
within interior structures we can distinguish box frames, skeleton frames etc.



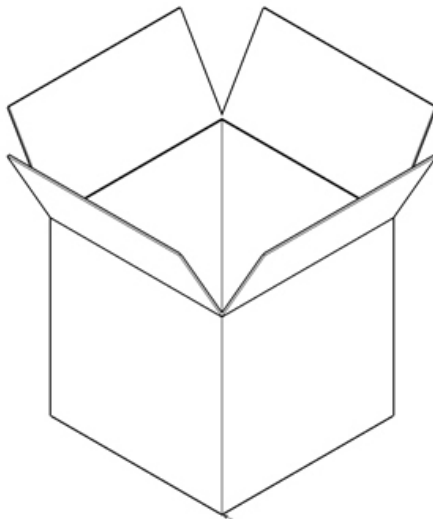
wooden frames



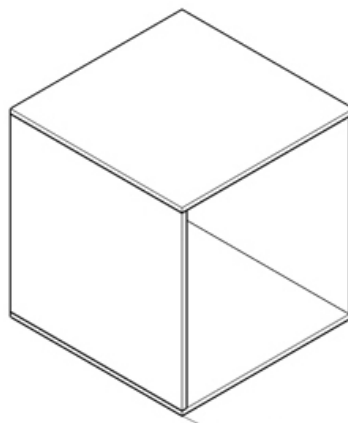
metal frames



tube frames



cardboard boxframes



wooden boxframes

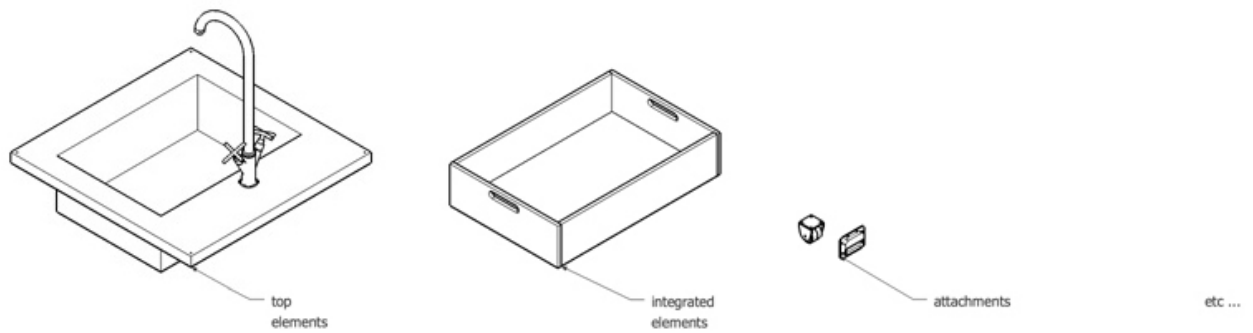
etc ...



Within elements several element types can be distinguished,

For example

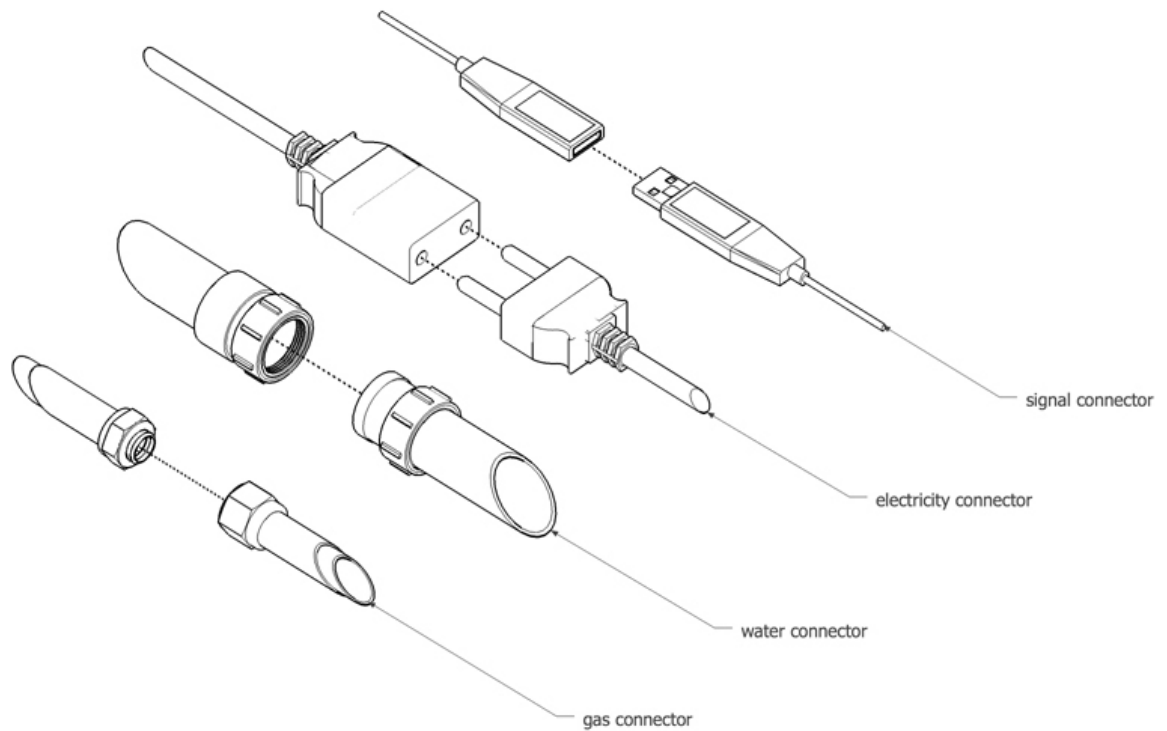
Within interior structures we can distinguish integrated elements, top elements, attachments, etc.



Within connectors, several connector types can be identified.

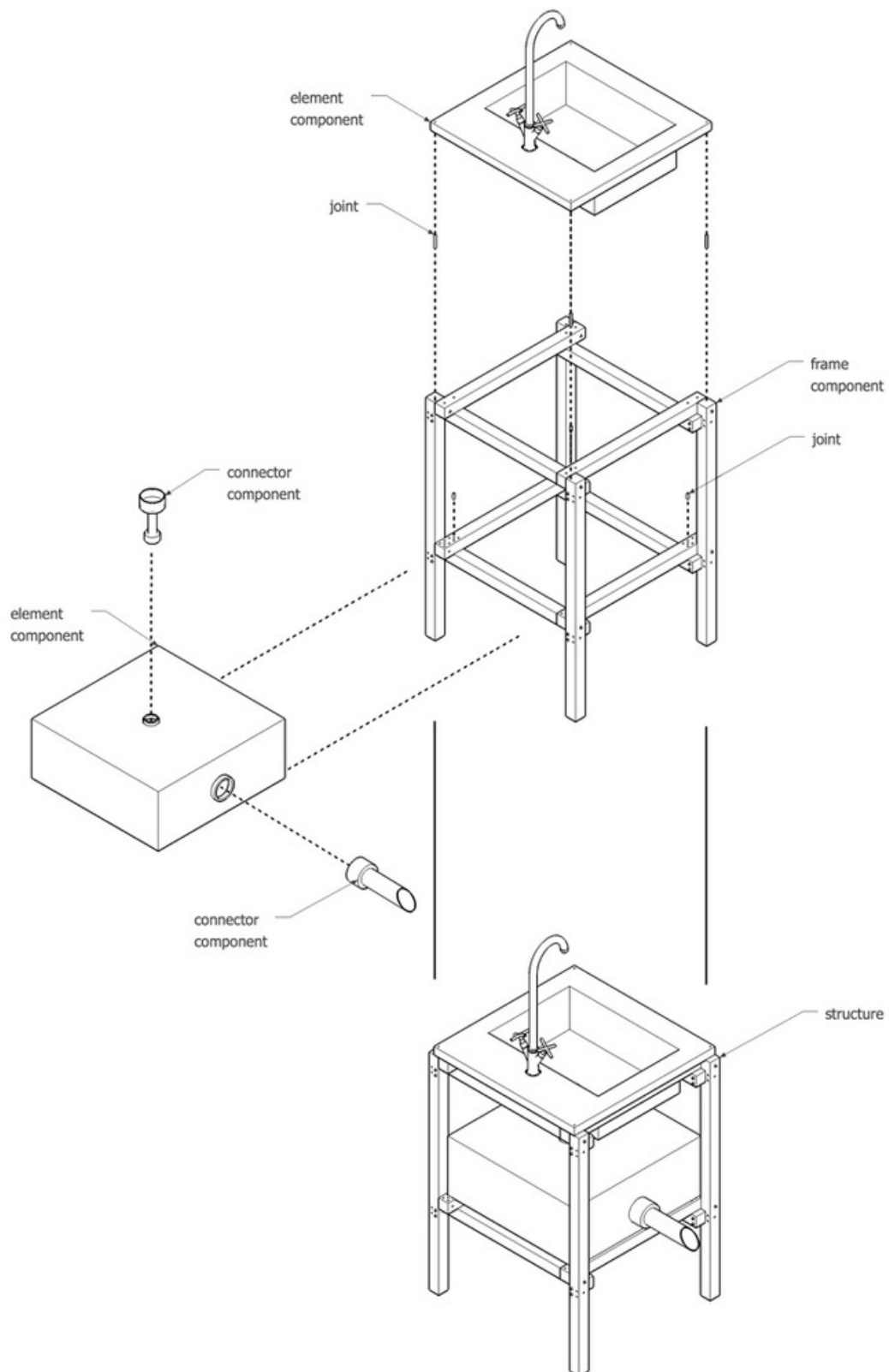
For example

Within interior structures we can distinguish water connectors, gas connectors, electricity connectors etc.



## Component combinations

Combinations of all these components shape structures.



*image: explanatory diagram*

## Examples

image: shows samples of possible dimensions and assembly point patterns for frame parts

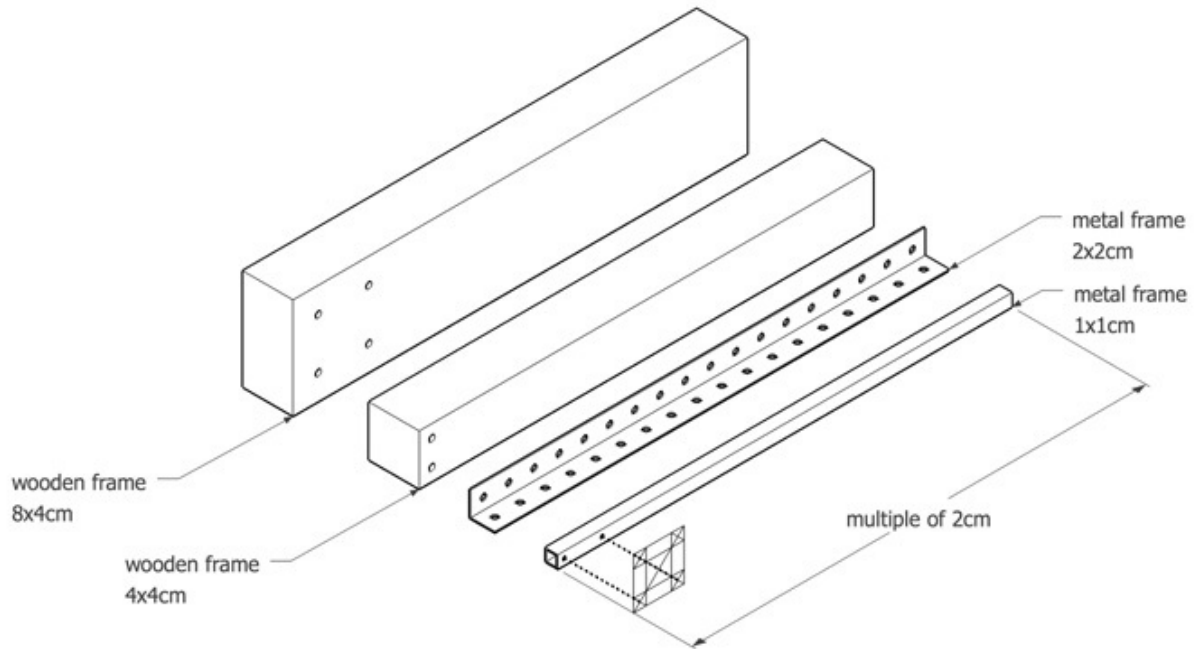


Image: shows examples of possible assembly point patterns for frame parts

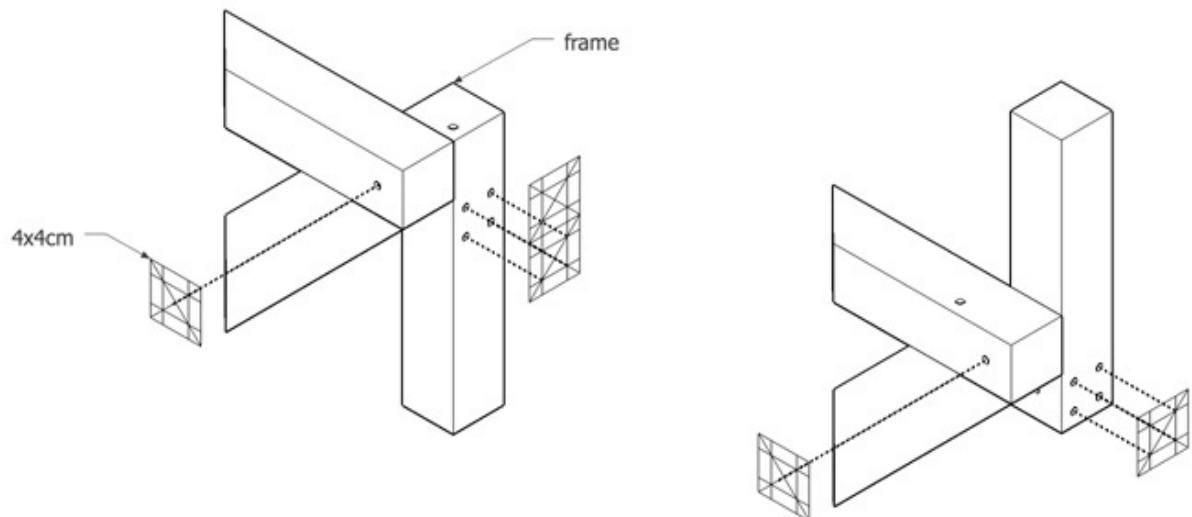




Image: shows examples of possible assembly point patterns for frame parts

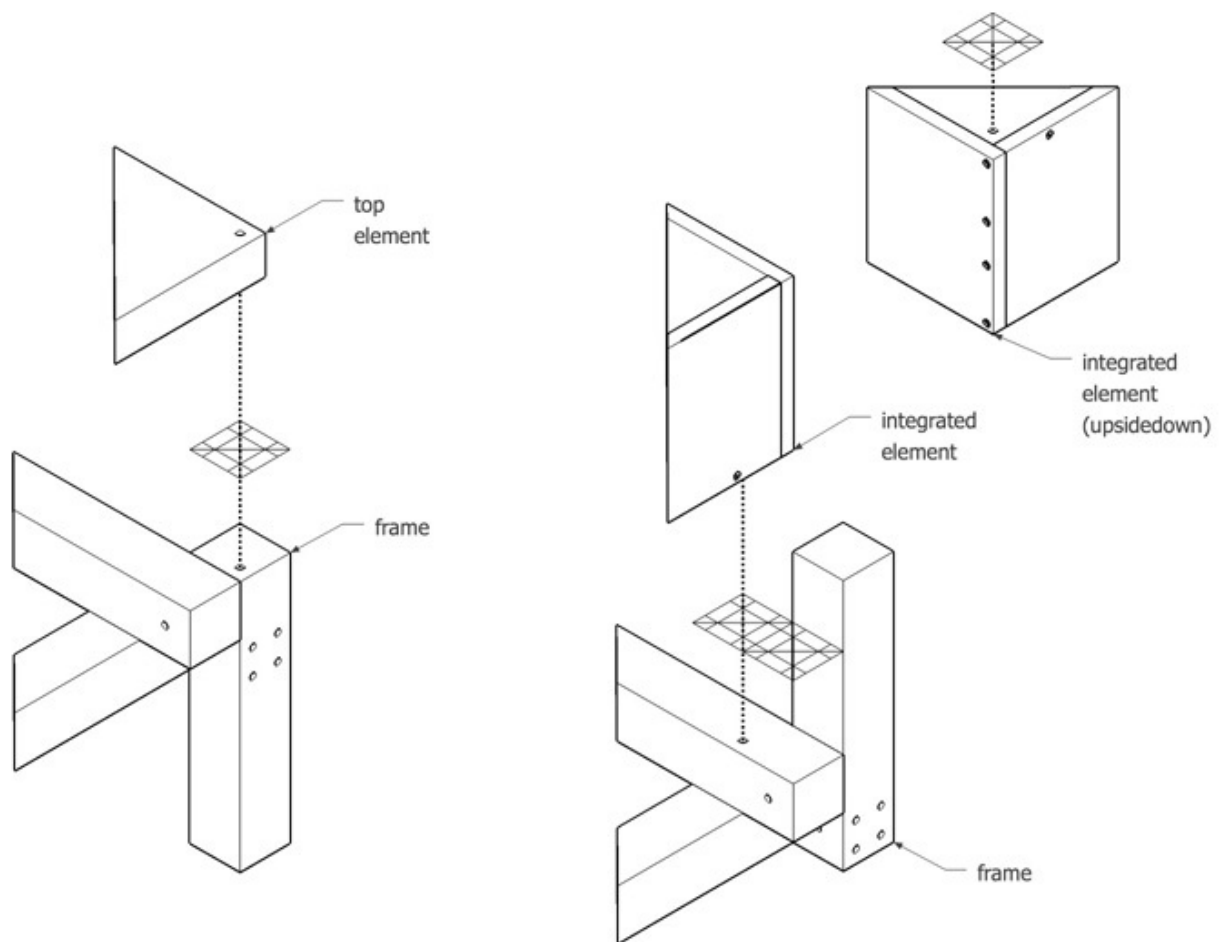


Image: shows samples of possible dimensions for attachments

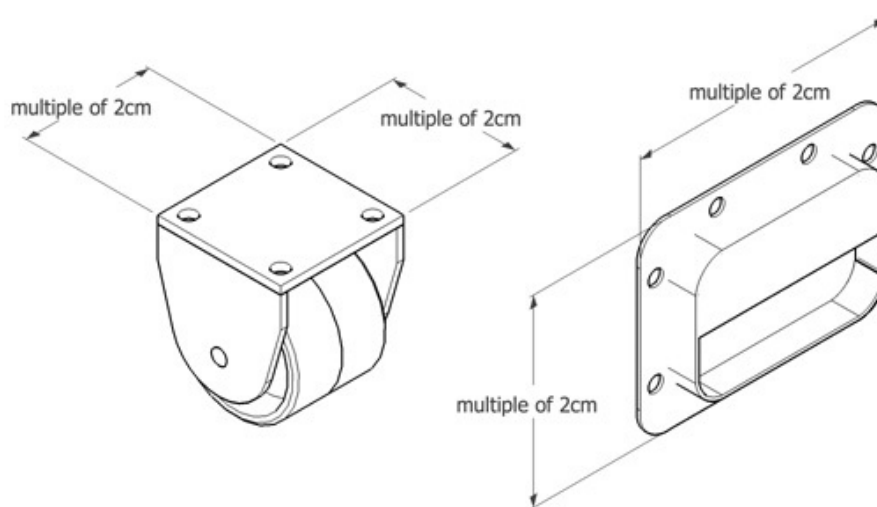


Image: shows samples of possible assembly point patterns for attachments

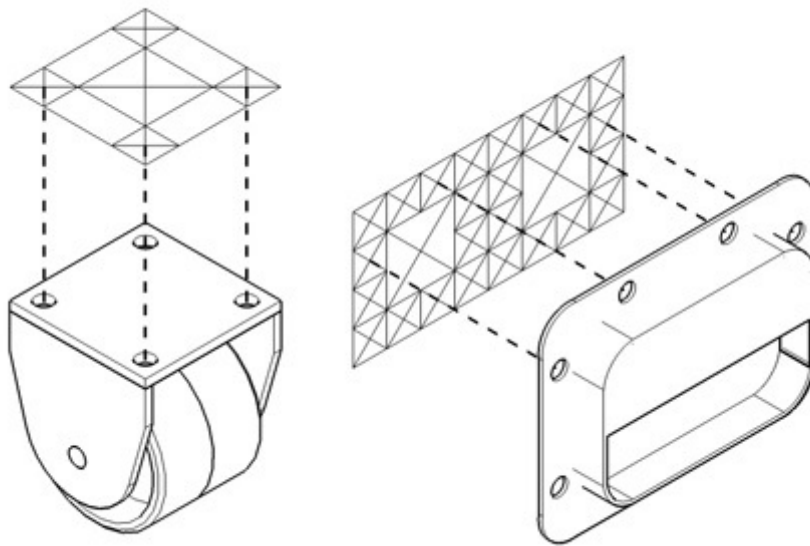
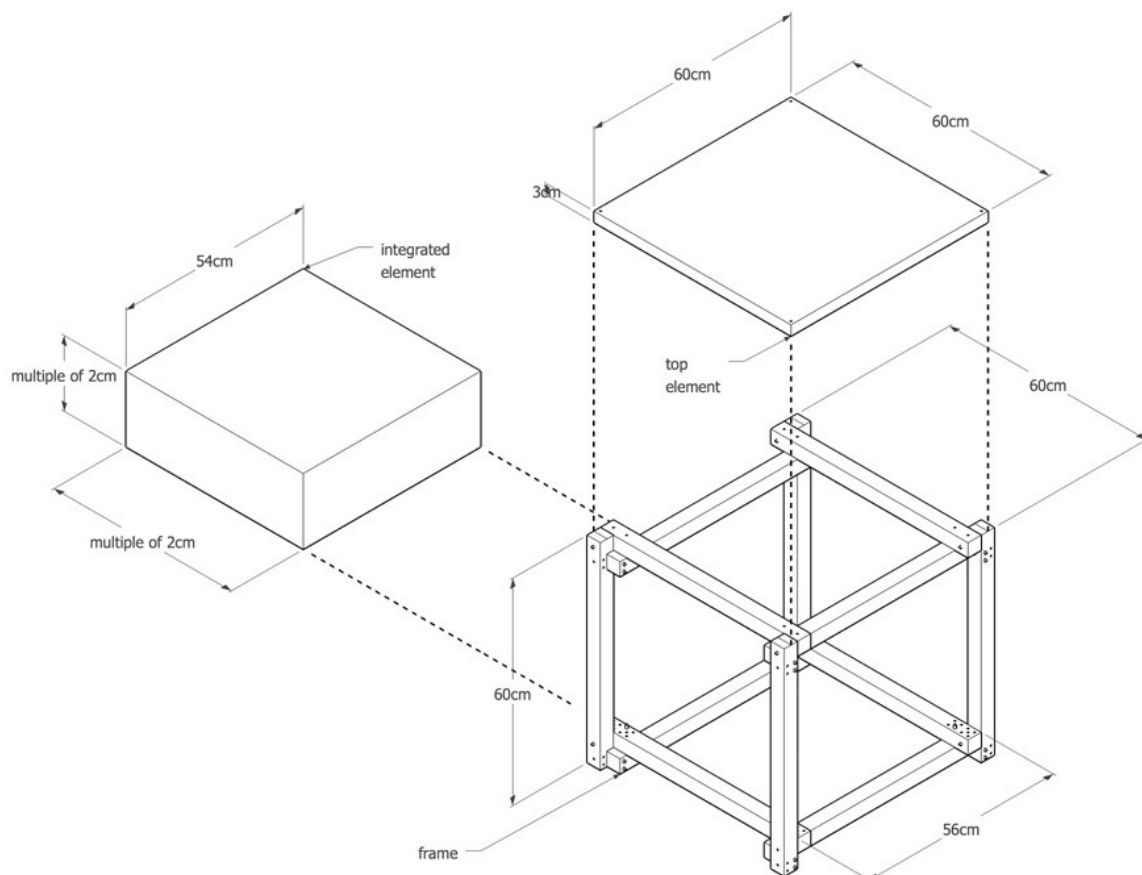


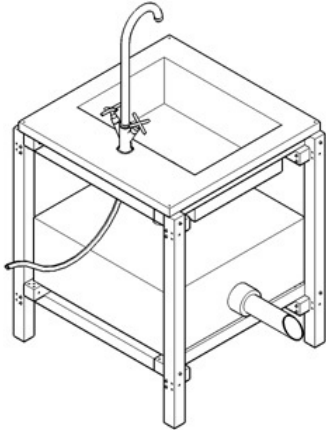
image: shows an example of how the OS grid could be applied when assembling a 60×60×60cm interior structure



## OS Structures

---

### Structures as systems (scroll down for more info)



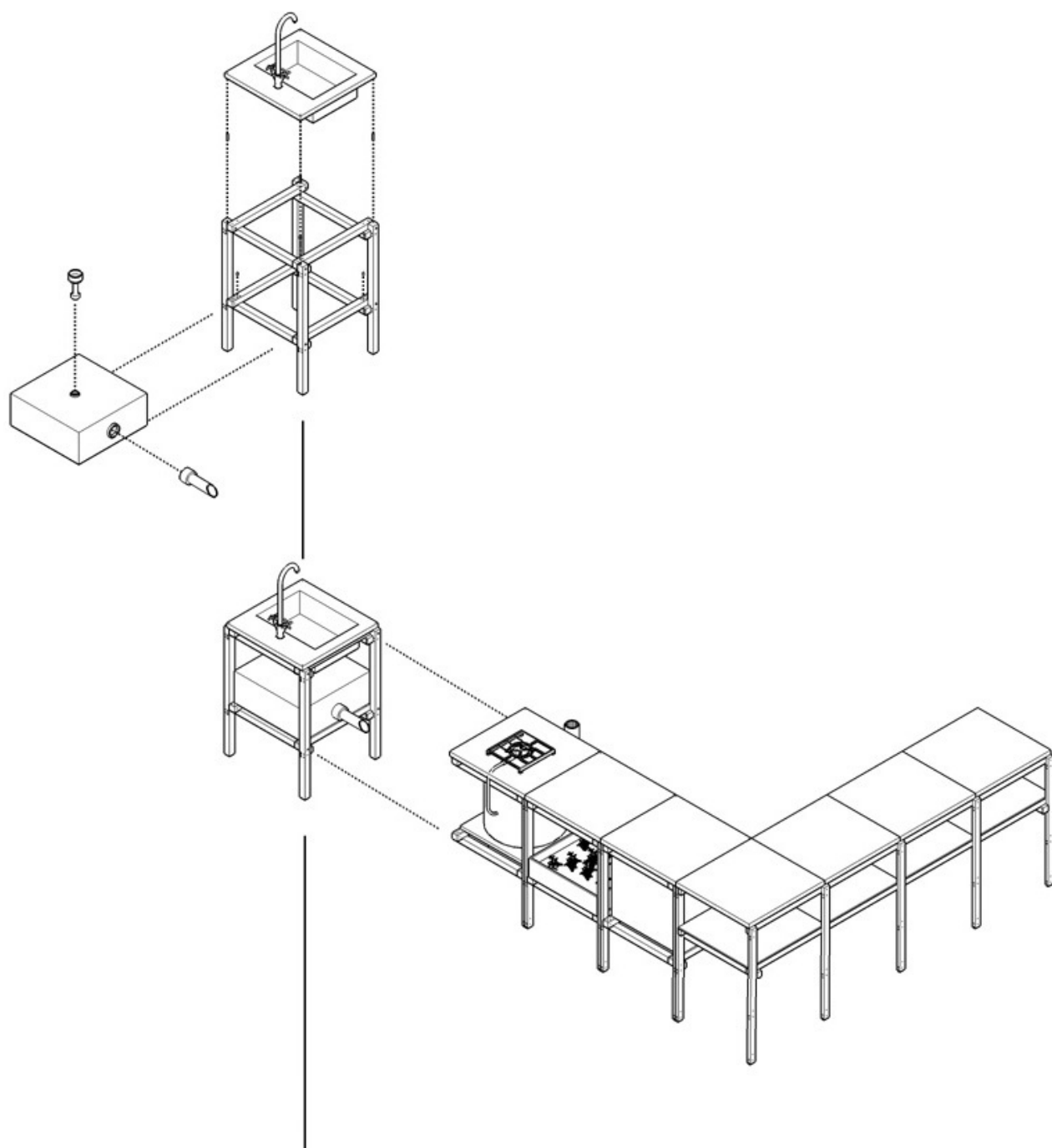
An Open Structure can be understood as an assembly of components, mostly consisting out of a frame – with or without a protecting skin – that contains and supports one or more functional elements. These frames and elements are assembled and connected to each other by joints. Finally, connectors facilitate the exchange of water, gas, electricity or wireless signals between two or more elements.

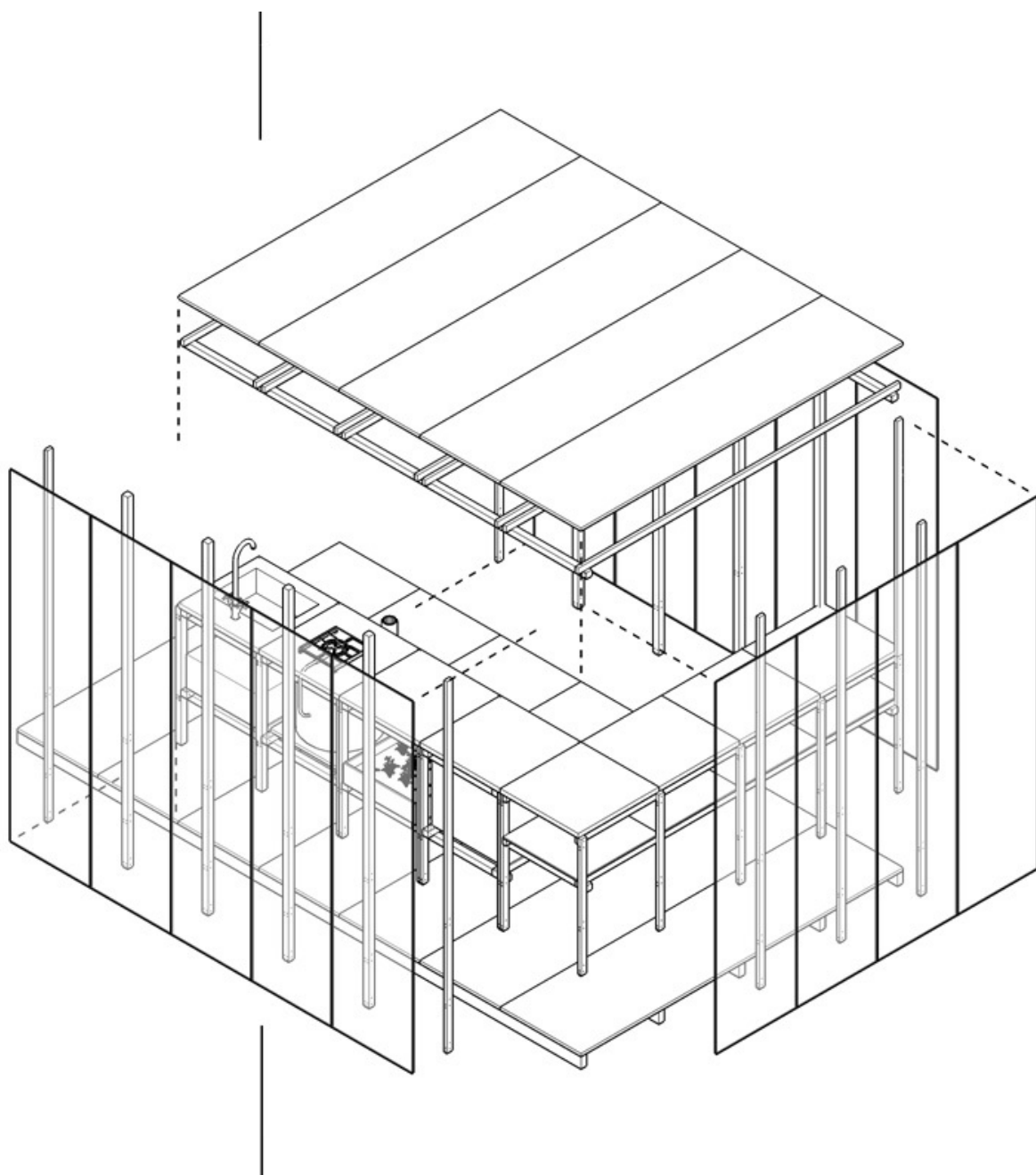


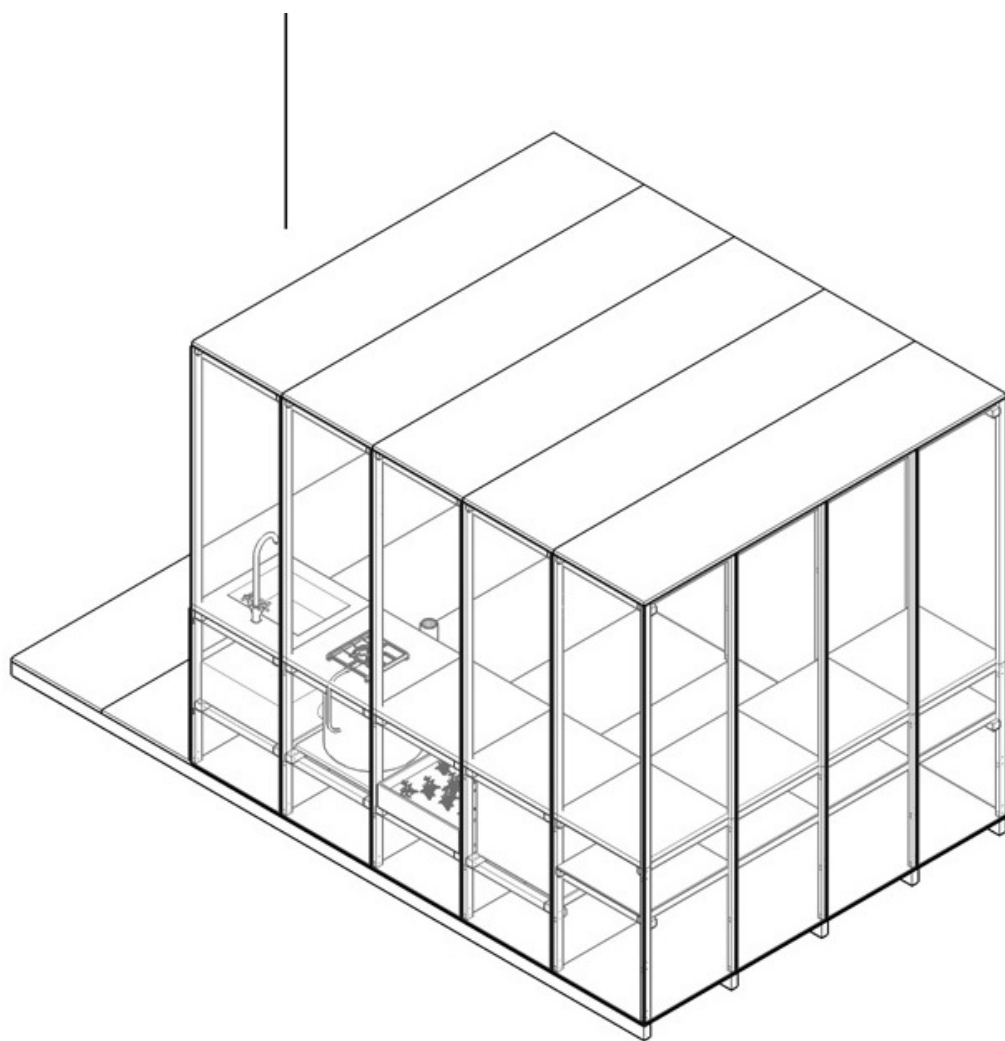
Just as a group of related organs is considered an organ system. Organs within a system may be related in any number of ways, but relationships of function are most commonly used. For example the urinary system comprises organs that work together to produce, store, and carry urine.  
(Wikipedia)



image: explanatory diagram





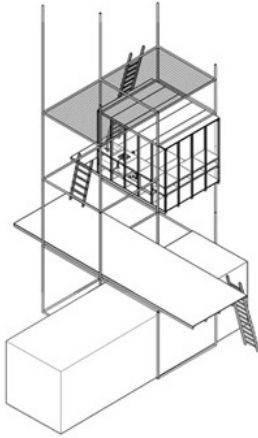




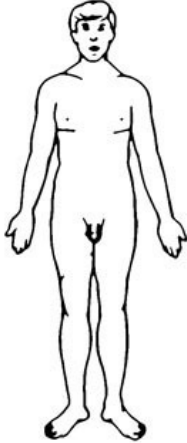
## OS Superstructures

---

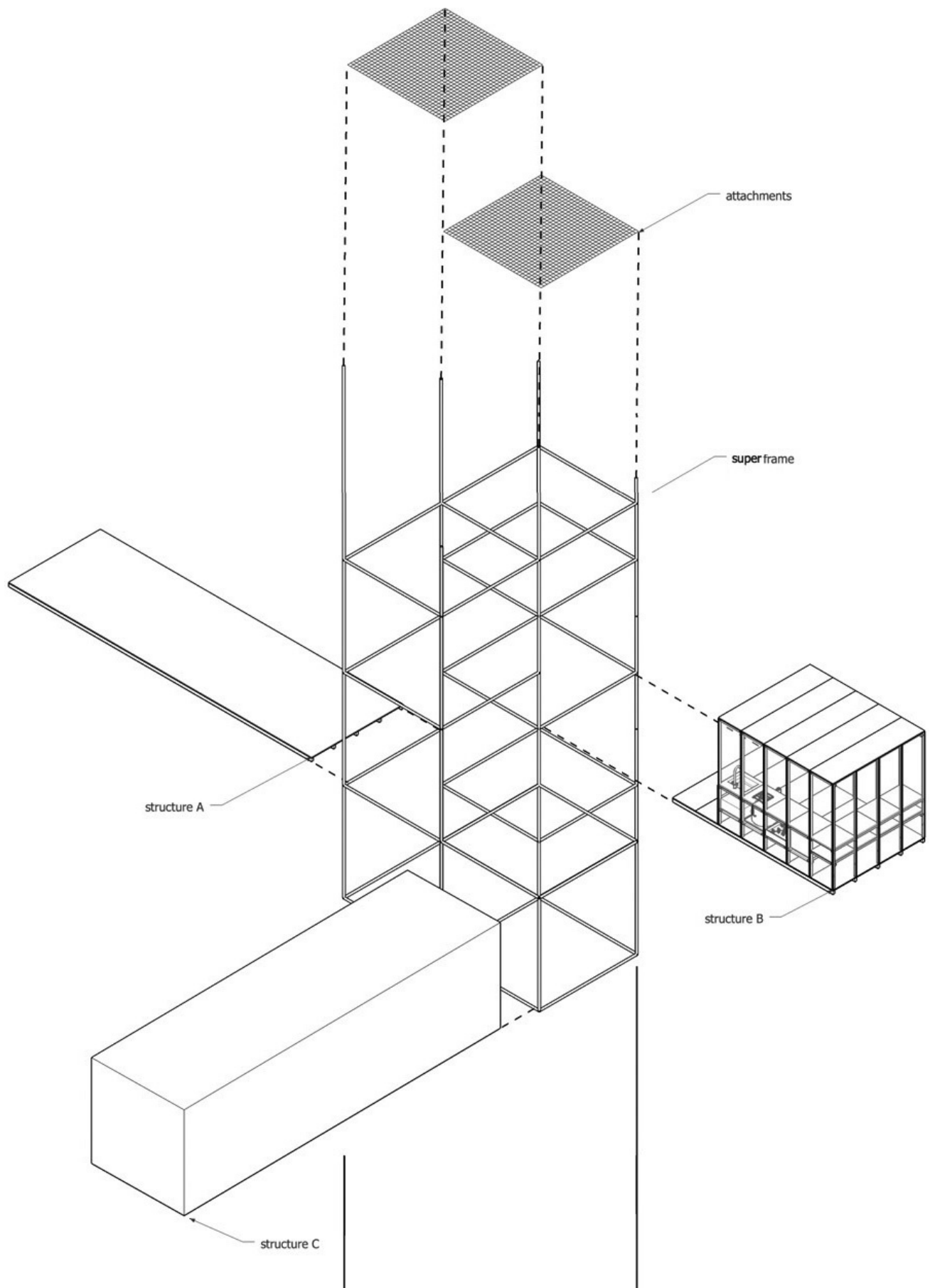
### Superstructures as organisms (scroll down for more info)

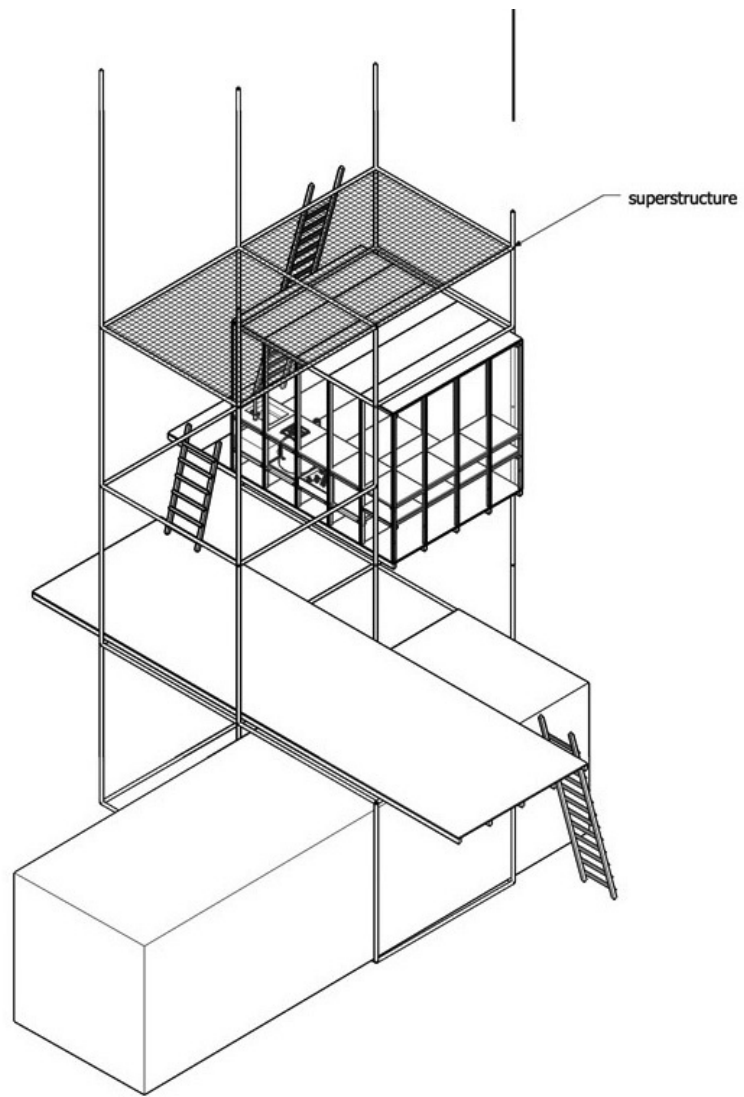


An Open Superstructure can be understood as the whole hierarchical assemblage of different structures that together function as a stable whole and has the capacities to grow and develop.



Just as an organism is usually described as the whole hierarchical assemblage of systems (for example circulatory, digestive, or reproductive) themselves collections of organs; these are, in turn, collections of tissues, which are themselves made of cells.  
(Wikipedia)







11





## 팹랩 Fab Lab이란?

Fab Lab (Fabrication Laboratory)은 레이저 커터, 3D 프린트 등 디지털 제작장비들을 통해 자신의 아이디어를 구현할 수 있는 공간이다. Fab Lab은 공공도서관과 같이 누구나 찾아와 이용할 수 있는 공공 제작공간으로, MIT Center for Bits and Atoms에서 처음 탄생하여 현재 세계 70개국 600개소가 운영 중이다. Fab Lab은 사람들에게 디지털 기술을 이용해 사물을 제작하는 새로운 방법을 교육하는 데 중점을 두고 있다. 레이저 커터, CNC 라우터, 3D 프린터 등의 디지털 제작(Digital Fabrication)장비들은 사용자의 숙련도가 완성품의 품질에 미치는 영향이 적고 같은 품질로 반복생산이 가능한 특징을 가지고 있다. 이러한 장비들을 이용하면 어린아이나 복잡한 기술에 익숙하지 않은 사람들도 쉽게 자신의 아이디어를 실제로 구현할 수 있다.



## 팹랩 서울 Fab Lab Seoul

팹랩 서울은 TIDE institute가 운영하는 서울 개방형 디지털 제작소이다. 과거 세운상가는 ‘한 바퀴만 돌면 잠수함도 만들 수 있다’는 말이 있을 정도로 국내 제조업의 중흥을 가져왔던 상징적인 장소로 알려져 있다. 팹랩 서울은 상징적 장소의 의미를 계승하고 새로운 제조업의 패러다임을 제공하기 위해 세운상가에 자리 잡고, 이후 지속해서 프로그램을 운영하며 설립취지를 지켜나가고 있다.







# Live painting


12





## Live painting

Real live painting은 CCTV, 웹캠, 셀프카메라 등 인터넷을 통해 생중계되는 영상을 캔버스 위에 직접 프로젝션함과 동시에 고정된 배경과 더불어 움직이고 있는 인물들의 실루엣을 라이브로 그려내는 회화 작업이다. 현재 진행 중인 ‘Real live painting’은 ‘기억의 목적’이라는 주제로 평소 관심 있게 지켜보던 인터넷에서의 개인의 일상 공유의 현상에 대한 리서치를 진행하던 중 알게 된 ‘사생활 엿보기: 어느 유럽의 젊은 커플들이 집 안에 여러 대의 카메라를 설치하고 인터넷을 통해 자신들의 생활을 전 세계에 공개하고 있다.’ 사이트를 통해 웹사이트에 공개된 그들의 사생활을 캔버스에 프로젝션하고 그들이 생활하는 실제 모습을 실시간으로 그리는 작업이다. 실시간 영상을 통해 그려지는 현재의 움직임이 바로 과거가 되며, 과거가 쌓여 작업이 완성된다. 전시기간 중 계속되는 이 퍼포먼스는 한 화면에 그들이 지내고 있는 임의의 시간의 흔적들을 캔버스에 남긴다.



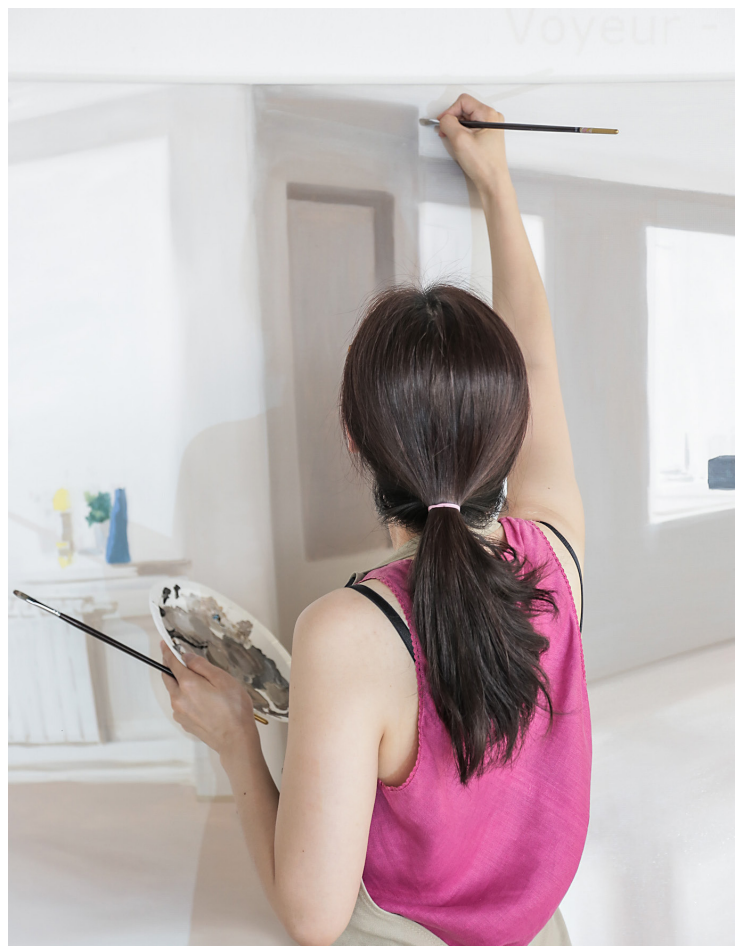
‘사막화’되어가고 있는 현실 세계에서 인터넷상에서의 개인 일상의 공유로 전 세계의 사람들과 커뮤니케이션을 하는 지금 작가 자신은 ‘리얼라이브페인팅’을 통해 우리가 살아가고 있는 ‘현대적 삶’이라는 것이 무엇인지 끊임없는 의문을 던진다.













# Marker Movement



13








## Marker Movement

‘Marker Movement’, ‘Digital Craftsman’ 단어와 함께 3D 프린팅이라는 도구가 우리 주변에 보편화 됐음에도, 디자인을 전공하는 대학생들이 이를 직접 접하여 경험하고 배울 기회는 실제로 많지 않다. 이에 토탈미술관에서는 상명대 조형예술학과 함께 워크숍을 마련했다. 3D 프린팅에 관한 설명과 사용법을 전문가에게 직접 배우고, 함께 연계하여 토탈미술관에서 전시하는 프로그램이다. 본 워크숍을 통해 ‘디자인’을 전공하는 대학생들에게 ‘Maker’라는 집단이 추구하는 목표와 ‘디자인’이라는 영역이 지니는 본연의 의미 그리고 디자이너의 사회적 역할과 책임감 형성에 도움을 주고자 한다.



1주차(5/21) – 오리엔테이션

2주차(5/28) – About ‘3D printing’(1) / 강사 : 임도원 작가

3주차(6/4) – About ‘3D printing’(2) / 강사 : 임도원 작가

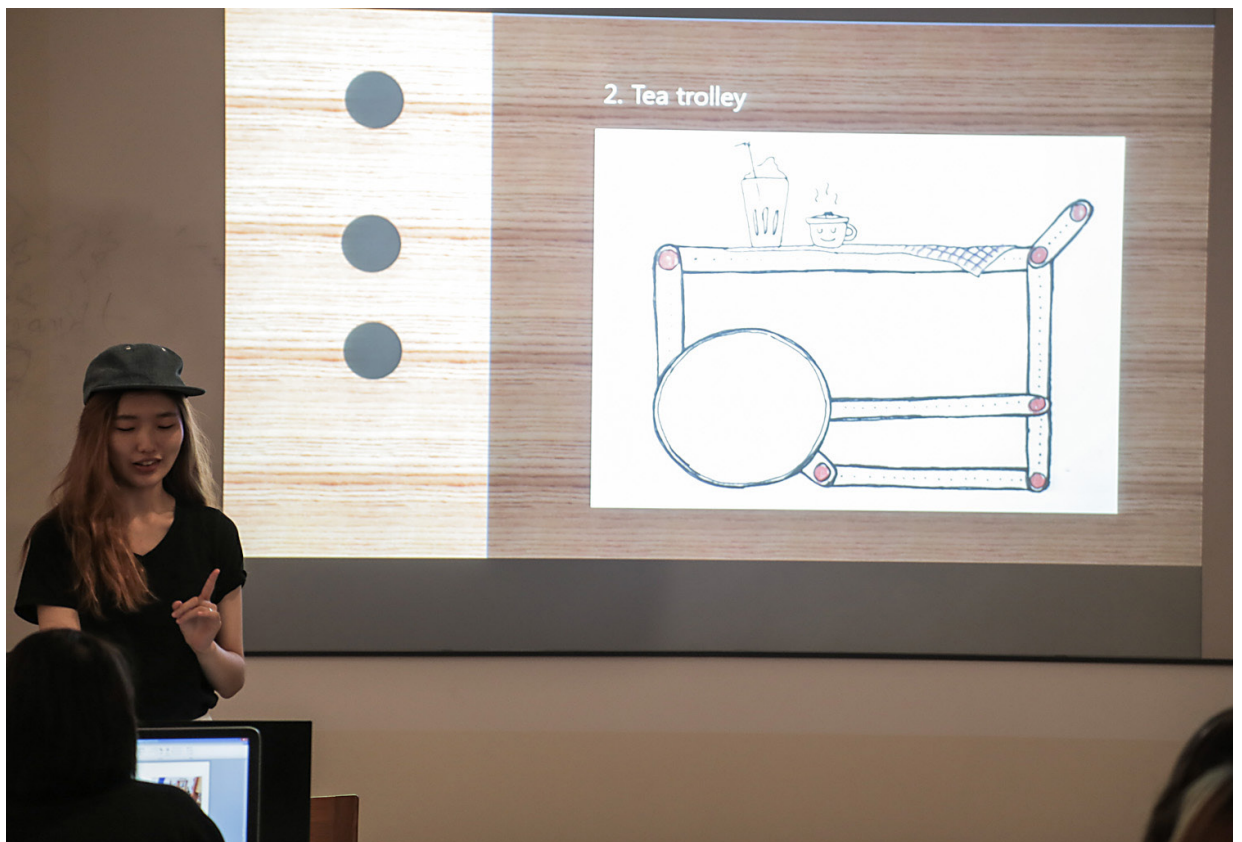
4주차(6/11) – 꿈의가구 Project









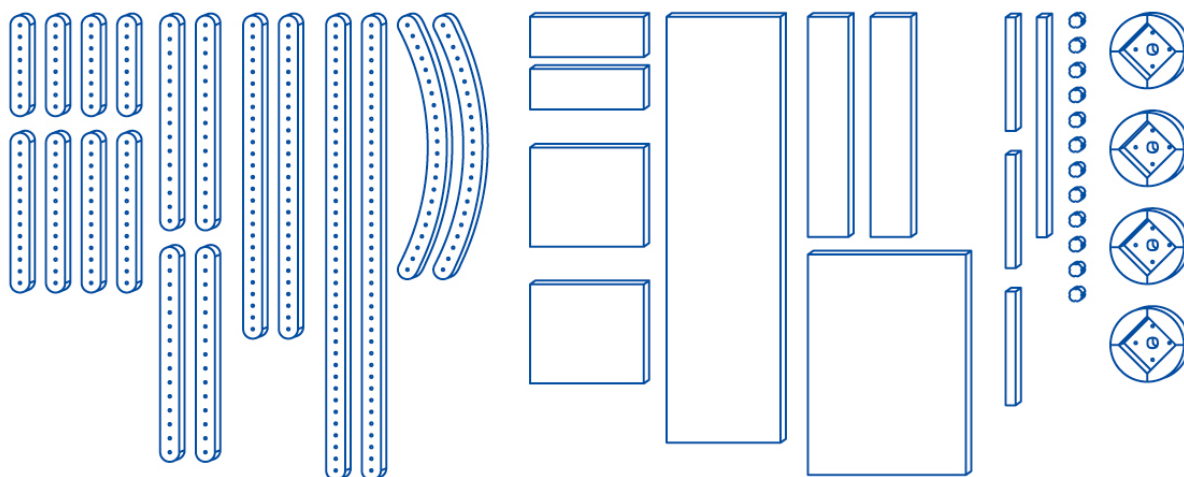




# News Letter

# design without Design

## ① 꿈의 가구



### 가족 워크숍 '똑딱똑딱 꿈의 가구' 2016.5.5 (목) – 2016.5.8 (일)

장소. 토탈미술관 전시장

시간. 오후 1시 - 5시

참가비. 성인 5천원, 어린이 3천원

예약 및 문의. 02-379-3994 / info@totalmuseum.org

'꿈의 가구'는 현재의 토탈미술관을 설계한 건축가이자 설립자인 문신규 회장이 1977년 아침차게 디자인한 DIY 조립식 가구 키트입니다. 극단적으로 기계화, 획일화 된 디자인이 난무하는 현대사회인 오늘날 우리의 개성을 살려줄 만능 가구 만들기 키트 '꿈의 가구'가 2016년 5월, 토탈미술관 개관 40주년을 맞이하여 다시 우리 곁으로 돌아옵니다. 어린 아이부터 어른까지 간단한 키트와 직접 디자인한 부품으로 똑.딱.똑.딱. 나만의 독특한 가구를 만들어 봅시다!

## workshop

### 〈design without Design〉 2016.5.3 (화) – 2016.6.26 (일)

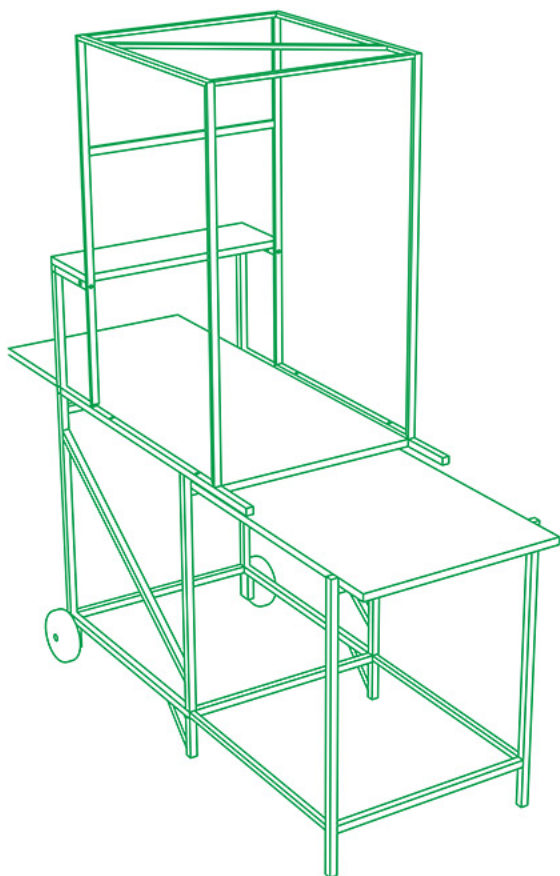
참여작가. 릴리쿰, 반보레-멘첼, 에우제니아 모르푸르고 & 소피아 구겐버거, 이중한&샬럿 떼에, 임도원, 제로랩, 토마 바이, 팸랩 서울  
협력. 릴리쿰, 상명대학교 생활예술학과, 심플프로젝트 컴퍼니, 아터테인, 팸랩 서울

본 프로젝트는 제목에서 보여주듯, 디자인 영역에 포괄할 수 있는 다양하고 창의적인 실험을 소개하며 '디자인' 본연의 의미, 그리고 디자이너의 사회적인 역할과 책임에 대해서 고민하는 자리입니다. 따라서 기존의 제품 디자인 전시들과는 달리 실험적인 디자인을 소개하고 아이디어를 공유하며, 관객 스스로가 제작할 수 있도록 하는 자리입니다. 또한 이미 완성된 결과물을 보여주는 것이 아니라, 무언가를 공유하고 만드는 현재 진행형의 워크숍 공방 및 제작연구소 형식의 플랫폼이 되고자 합니다.

TOTAL MUSEUM  
OF CONTEMPORARY ART

# design without Design

## ② 오픈 레서피



### 모바일 키친 '다 같이 먹자'

2016.5.14 (토) – 2016.6.26 (일)

장소. 토탈미술관 야외 데크, 모바일 키친 '오픈 레서피'

일정. 수요일 - 일요일, 오후 12시 - 3시 (21일, 22일 제외)

협력. 제로랩, 심플 프로젝트 컴퍼니

예약 및 문의. 02-379-3994 / info@totalmuseum.org

\*식사비 별도 (식사비는 메뉴에 따라 상이합니다.)

«design without Design»에서 함께하는 모바일 키친은 오픈소스 DIY 프로젝트인 *Instructables Restaurant*를 재구성한 것으로 토탈미술관, 제로랩, 심플프로젝트 컴퍼니의 협업으로 이루어집니다. 디자이너, 아티스트를 비롯한 다양한 분야의 창작자 및 일반인들의 레서피 공개모집을 통해 각각의 개성이 넘쳐나는 음식 레서피를 받고, 이를 모두와 함께 즐기며 캐주얼한 대화의 시간을 갖기 위해 기획하였습니다. '오픈 레서피'의 모든 레서피와 제로랩의 모바일 키친 제작도면 등은 dwD프로젝트의 의도에 맞춰 글자 그대로 쿨.하.게. 오픈소스로 공유하게 되며, 프로그램 진행은 심플프로젝트의 셰프들이 흠뻑 도와주기로 했습니다! (동참해주기로 했습니다!) 짹.짹.짹!

## mobile kitchen

### «design without Design»

2016.5.3 (화) – 2016.6.26 (일)

참여작가. 릴리쿰, 반보레-멘첼, 에우제니아 모르푸르고 & 소피아 구겐버거, 이종한&살렛 떼에, 임도원, 제로랩, 토마 바이, 팽랩 서울  
협력. 릴리쿰, 상명대학교 생활예술학과, 심플프로젝트 컴퍼니, 아티테인, 팽랩 서울

본 프로젝트는 제목에서 보여주듯, 디자인 영역에 포괄할 수 있는 다양하고 창의적인 실험을 소개하며 '디자인' 본연의 의미, 그리고 디자이너의 사회적인 역할과 책임에 대해서 고민하는 자리입니다. 따라서 기존의 제품 디자인 전시들과는 달리 실험적인 디자인을 소개하고 아이디어를 공유하며, 관객 스스로가 제작할 수 있도록 하는 자리입니다. 또한 이미 완성된 결과물을 보여주는 것이 아니라, 무언가를 공유하고 만드는 현재 진행형의 워크샵 공방 및 제작연구소 형식의 플랫폼이 되고자 합니다.

TOTAL MUSEUM  
OF CONTEMPORARY ART



# design without Design

## ③ 1-SQM-House

### DIY 워크숍 '쓱쓱쓱'

2016.5.14 (토) – 2016.5.15 (일)

장소. 토탈미술관 야외 데크

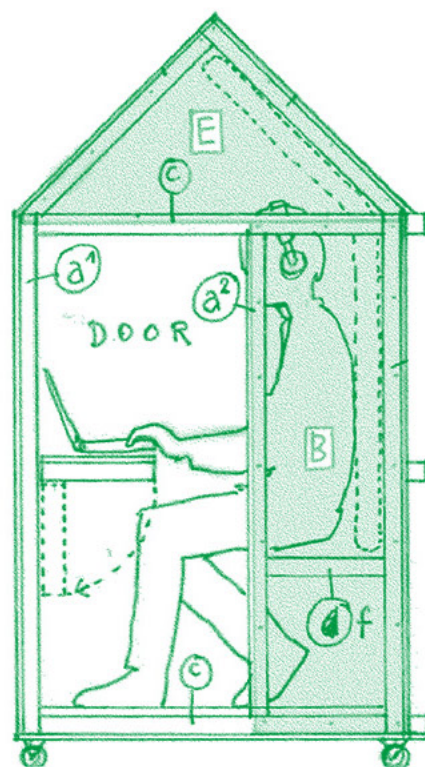
시간. 오후 1시 - 6시

참가비. 무료

예약 및 문의. 02-379-3994 / info@totalmuseum.org

혼자만의 공간이 필요할 때, 세상으로부터 도망치고 싶을 때,  
나만의 공간이 절실히 필요할 때, 걱정하지 마세요!  
우리 곁에는 1-SQM-House가 있습니다!

1-SQM-House는 독일 건축가 Van Bo Le-Mentzel이 설계한  
DIY하우스로 1평방미터라는 작은 바닥면적을 가진 공간이지만  
트랜스포머처럼 변신가능한 공간입니다. 가로로 눕혀 누울  
수도 있고 세워서는 이동식 매점, 개방형 사무공간, 엑스트라  
하우스 등으로 사용할 수 있는 매력적인 녀석으로 단출한  
단독공간이 필요한 분들에게는 안.성.맞.춤 하우스가 되겠습니다.  
토탈미술관에 방문하셨을 때도 혼자만의 사색이 필요하거나 dwd  
프로젝트 자료를 조용히 보고 싶을 때, 모두 다 같이 사용할 수  
있도록 함께 만들면 좋겠습니다! 동참해주세요!



## workshop

### <design without Design>

2016.5.3 (화) – 2016.6.26 (일)

참여작가. 릴리쿰, 반보레-멘첼, 에우제니아 모르푸르고 & 소피아  
구겐버거, 이중한&살렛 떼에, 임도원, 제로랩, 토마 바이, 팸랩 서울  
협력. 릴리쿰, 상명대학교 생활예술학과, 심플프로젝트 컴퍼니,  
아티테인, 팸랩 서울

본 프로젝트는 제목에서 보여주듯, 디자인 영역에 포괄할 수 있는  
다양하고 창의적인 실험을 소개하며 '디자인' 본연의 의미, 그리고  
디자이너의 사회적인 역할과 책임에 대해서 고민하는 자리입니다.  
따라서 기존의 제품 디자인 전시들과는 달리 실험적인 디자인을  
소개하고 아이디어를 공유하며, 관객 스스로가 제작할 수 있도록  
하는 자리입니다. 또한 이미 완성된 결과물을 보여주는 것이  
아니라, 무언가를 공유하고 만드는 현재 진행형의 워크숍 공방 및  
제작연구소 형식의 플랫폼이 되고자 합니다.

TOTAL MUSEUM  
OF CONTEMPORARY ART

# design without Design

## ③ One-SQM-House

DIY 워크숍 '쓱쓱쓱'

2016.5.14 (토) – 2016.5.15 (일)

장소. 토탈미술관 야외 데크

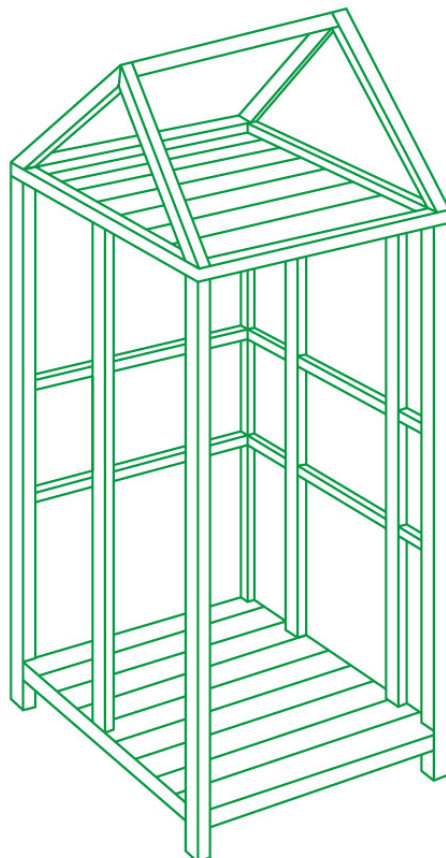
시간. 오후 1시 - 6시

참가비. 무료

예약 및 문의. 02-379-3994 / info@totalmuseum.org

혼자만의 공간이 필요할 때, 세상으로부터 도망치고 싶을 때,  
나만의 공간이 절실히 필요할 때, 걱정하지 마세요! 우리 곁에는  
One-SQM-House가 있습니다!

One-SQM-House는 독일 건축가 Van Bo Le-Mentzel이  
설계한 DIY하우스로 1평방미터라는 작은 바닥면적을 가진  
공간이지만 트랜스포머처럼 변신가능한 공간입니다. 가로로  
놓혀 누울 수도 있고 세워서는 이동식 매점, 개방형 사무공간,  
엑스트라 하우스 등으로 사용할 수 있는 매력적인 녀석으로 단출한  
단독공간이 필요한 분들에게는 안.성.맞.춤 하우스가 되겠습니다.  
토탈미술관에 방문하셨을 때도 혼자만의 사색이 필요하거나 dWd  
프로젝트 자료를 조용히 보고 싶을 때, 모두 다 같이 사용할 수  
있도록 함께 만들면 좋겠습니다! 동참해주세요!



# workshop

◀design without Design▶

2016.5.3 (화) – 2016.6.26 (일)

참여작가. 릴리쿰, 반보레-멘첼, 에우제니아 모르푸르고 & 소피아  
구겐버거, 이중한&살렛 떼에, 임도원, 제로랩, 토마 바이, 팽랩 서울  
협력. 릴리쿰, 상명대학교 생활예술학과, 심플프로젝트 컴퍼니,  
아터테인, 팽랩 서울

본 프로젝트는 제목에서 보여주듯, 디자인 영역에 포괄할 수 있는  
다양하고 창의적인 실험을 소개하며 '디자인' 본연의 의미, 그리고  
디자이너의 사회적인 역할과 책임에 대해서 고민하는 자리입니다.  
따라서 기존의 제품 디자인 전시들과는 달리 실험적인 디자인을  
소개하고 아이디어를 공유하며, 관객 스스로가 제작할 수 있도록  
하는 자리입니다. 또한 이미 완성된 결과물을 보여주는 것이  
아니라, 무언가를 공유하고 만드는 현재 진행형의 워크숍 공방 및  
제작연구소 형식의 플랫폼이 되고자 합니다.

TOTAL MUSEUM  
OF CONTEMPORARY ART

# design without Design

## ③ 1-SQM-House

DIY 워크숍 '쓱쓱쓱'

2016.5.14 (토) – 2016.5.15 (일)

장소: 토탈미술관 야외 데크

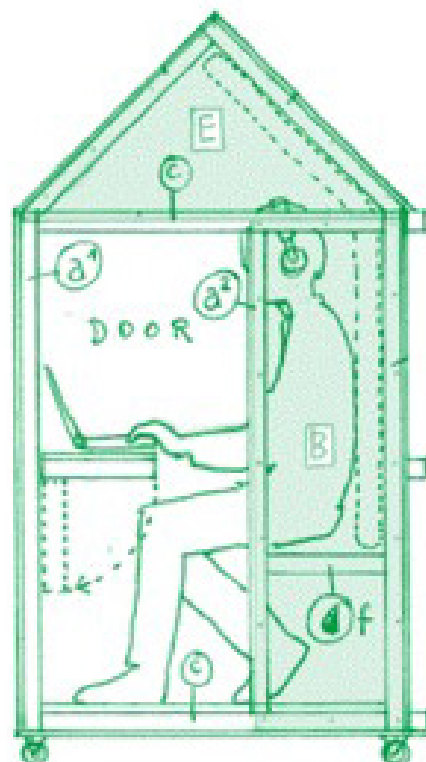
시간: 오후 1시 - 6시

참가비: 무료

예약 및 문의: 02-379-3994 / info@totalmuseum.org

혼자만의 공간이 필요할 때, 세상으로부터 도망치고 싶을 때,  
너만의 공간이 절실히 필요할 때, 걱정하지 마세요! 우리 곁에는  
1-SQM-House가 있습니다!

1-SQM-House는 독일 건축가 Van Bo Le-Mentzel이 설계한  
DIY하우스로 1평방미터라는 작은 바닥면적을 가진 공간이지만  
트랜스포머처럼 변신가능한 공간입니다. 가로로 놓혀 누울  
수도 있고 세워서는 이동식 책상, 개방형 사무공간, 엑스트라  
하우스 등으로 사용할 수 있는 매력적인 내적으로 단순한  
단독공간이 필요한 분들께는 연,성,맞,춤 하우스가 되겠습니다.  
토탈미술관에 방문하셨을 때도 혼자만의 사색이 필요하거나 dwD  
프로젝트 자료를 조심히 보고 싶을 때, 모두 다 같이 사용할 수  
있도록 함께 만들면 좋겠습니다! 동참해주세요!



## workshop

«design without Design»

2016.5.3 (화) – 2016.6.26 (일)

참여작가: 임리준, 반보라-멘텔, 에우제니아 모로루르고 & 소피아  
구겐버거, 이종원&살렛 페레, 임도원, 페로젠, 토마 바이, 램캄 서울  
협학: 임리준, 상명대학교 생활예술학과, 신품프로젝트 컴퍼니,  
아터테인, 램캄 서울

본 프로젝트는 제작에서 보여주듯, 디자인 영역에 포괄할 수 있는  
다양하고 창의적인 실험을 소개하며 '디자인' 본연의 의미, 그리고  
디자이너의 사회적인 역할과 책임에 대해서 고민하는 자리입니다.  
따라서 기존의 제품 디자인 전시들과는 달리 실험적인 디자인을  
소개하고 아이디어를 공유하며, 관객 스스로가 제작할 수 있도록  
하는 자리입니다. 또한 이미 완성된 결과물을 보여주는 것이  
아니라, 무언가를 공유하고 만드는 현재 진행형의 워크숍 공간 및  
제작연구소 형식의 플랫폼이 되고자 합니다.

TOTAL MUSEUM  
OF CONTEMPORARY ART



# design without Design

## ③ 1-SQM-House

### DIY 워크숍 '쓱쓱쓱'

2016.5.14 (토) – 2016.5.15 (일)

장소: 토탈미술관 야외 데크

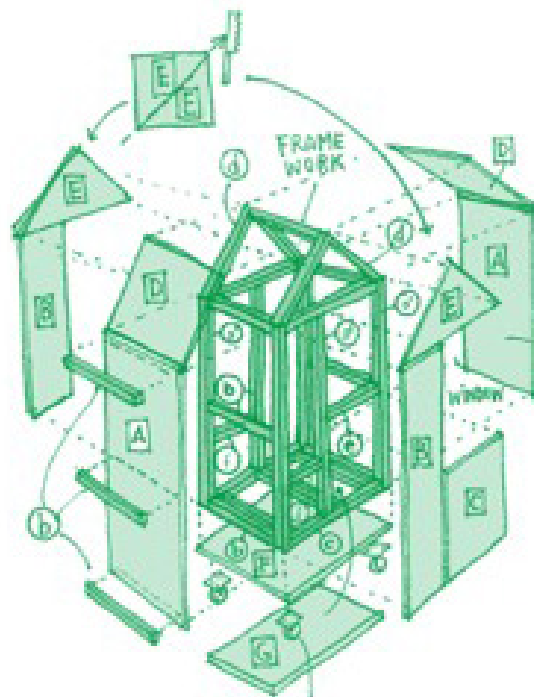
시간: 오후 1시 - 6시

참가비: 무료

예약 및 문의: 02-379-3994 / info@totalmuseum.org

혼자만의 공간이 필요할 때, 세상으로부터 도망치고 싶을 때,  
너만의 공간이 절실히 필요할 때, 걱정하지 마세요! 우리 곁에는  
1-SQM-House가 있습니다!

1-SQM-House는 독일 건축가 Van Bo Le-Mentzel이 설계한  
DIY하우스로 1평방미터라는 작은 바닥면적을 가진 공간이지만  
트랜스포머처럼 변신가능한 공간입니다. 가로로 놓혀 누울  
수도 있고 세워서서는 이동식 매점, 개방형 사무공간, 엑스트라  
하우스 등으로 사용할 수 있는 매력적인 내적으로 단순한  
단독공간이 필요한 분들께는 연,성,맞,춤 하우스가 되겠습니다.  
토탈미술관에 방문하셨을 때도 혼자만의 사색이 필요하거나 dwD  
프로젝트 자료를 조심히 보고 싶을 때, 모두 다 같이 사용할 수  
있도록 함께 만들면 좋겠습니다! 동참해주세요!



## workshop

### «design without Design»

2016.5.3 (화) – 2016.6.26 (일)

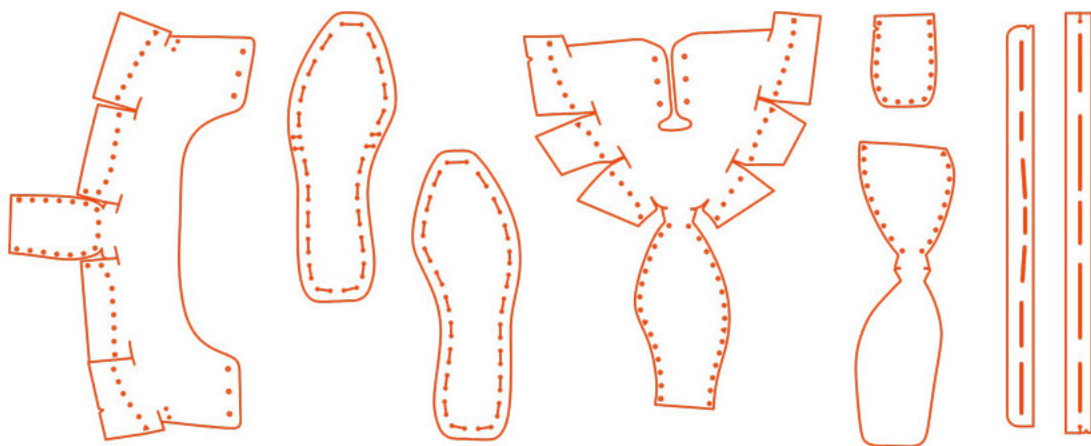
참여작가: 임리준, 반보라-멘젤, 에우제니아 모로루르고 & 소피아  
구겐버거, 이종원&살렛 페레, 임도원, 페로켄, 토마 바이, 뎀 셉  
헵틱, 임리준, 상명대학교 생활예술학과, 신품프로젝트 컴퍼니,  
아터테인, 뎀 셉

본 프로젝트는 제목에서 보여주듯, 디자인 영역에 포괄할 수 있는  
다양하고 창의적인 실험을 소개하며 '디자인' 본연의 의미, 그리고  
디자이너의 사회적인 역할과 책임에 대해서 고민하는 자리입니다.  
따라서 기존의 제품 디자인 전시들과는 달리 실험적인 디자인을  
소개하고 아이디어를 공유하며, 관객 스스로가 제작할 수 있도록  
하는 자리입니다. 또한 이미 완성된 결과물을 보여주는 것이  
아니라, 무언가를 공유하고 만드는 현재 진행형의 워크숍 공간 및  
제작연구소 형식의 플랫폼이 되고자 합니다.

TOTAL MUSEUM  
OF CONTEMPORARY ART

# design without Design

## ④ *AnOtherShoe*



### **AnOtherShoe Workshop**

**2016.6.17 Fri — 2016.6.18 Sat**

Venue. Total Museum of Contemporary Art

Workshop Hours. 1pm - 5pm

Workshop Fee. 50,000 won

Reservation & Information.

02-379-3994 / [info@totalmuseum.org](mailto:info@totalmuseum.org)

Download Production Files & Instructions.

<http://anothershoe.squarespace.com>

Bridging the gap between digital fabrication and traditional market relations, AnOtherShoe is a project developed by Sophia Guggenberger and Eugenia Morpurgo. With this project, they want consumers to own their product as well as the knowledge to make, modify and repair it.

Employing a laser cutter, all the parts can be cut using a single file containing all the information for the production. Choose materials that you like and get your own exclusive pair of shoes!

## workshop

### *design without Design*

**2016.5.3 Tues — 2016.6.26 Sun**

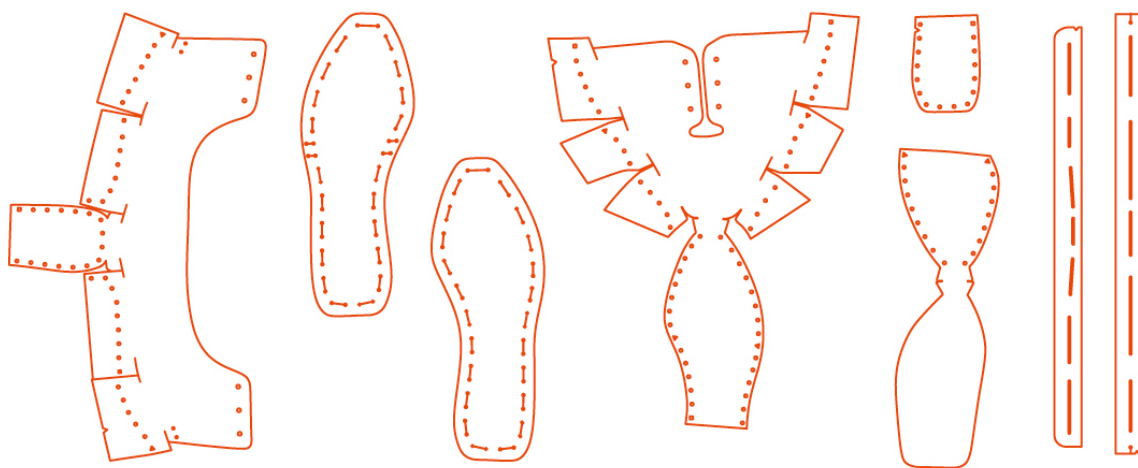
Artists & Designers. Do-one I'm, Eugenia Morpurgo & Sophia Guggenberger, FAB Lab Seoul, Joonghan Lee & Charlotte Therre, Reliquum, SIMPLE PROJECT & CO, Van Bo Le-Mentzel, Zerolab

Project *design without Design* does not focus on successful design items, famous designers' products. On the other hand, *design without Design* would like to build an open platform where people come together, share ideas, and make something by themselves. In other words, *design without Design* is not the exhibition which present completed products or showcase. It is more of workshop place or laboratory.

**TOTAL MUSEUM**  
OF CONTEMPORARY ART

# design without Design

## ④ AnOtherShoe



### 신발 만들기 워크숍 '폴짝 폴짝'

2016.6.17 (금) – 2016.6.18 (토)

장소. 토탈미술관 전시장

시간. 오후 1시 - 5시

참가비. 성인 5만원 (입금완료 후 예약확인이 가능합니다.)

입금계좌. 우리은행 우혜진 1002-954-266510

예약 및 문의. 02-379-3994 / info@totalmuseum.org

AnOtherShoe는 소피아 구겐버거와 에우제니아 모르푸르고의 공동 프로젝트로, 디지털 제작과 전통적인 수공예 기법의 간격을 줄이고자 합니다. 참여자들이 직접 제작과 수리가 용이한 신발을 만들 수 있도록 제작파일, 설명서 등 필요한 정보들을 공유합니다. (다운로드 <http://anothershoe.squarespace.com>)

파일을 열어 레이저 커터로 싹뚝싹뚝 신발 부품들을 잘라내고, 부품을 직접 조립하고 완성하여 신을 수 있는 AnOtherShoe! 신발의 기본적인 형태를 제외하고 우리 스스로 재료를 선택하면 더 색다른 나만의 신발을 만들 수 있습니다.

## workshop

### «design without Design»

2016.5.3 (화) – 2016.6.26 (일)

참여작가. 릴리쿰, 반보레-멘첼, 에우제니아 모르푸르고 & 소피아 구겐버거, 이종한&살렛 떼에, 임도원, 제로랩, 토마 바이, 팸랩 서울  
협력. 릴리쿰, 상명대학교 생활예술학과, 심플프로젝트 컴퍼니, 아터테인, 팸랩 서울

본 프로젝트는 제목에서 보여주듯, 디자인 영역에 포괄할 수 있는 다양하고 창의적인 실험을 소개하며 '디자인' 본연의 의미, 그리고 디자이너의 사회적인 역할과 책임에 대해서 고민하는 자리입니다. 따라서 기존의 제품 디자인 전시들과는 달리 실험적인 디자인을 소개하고 아이디어를 공유하며, 관객 스스로가 제작할 수 있도록 하는 자리입니다. 또한 이미 완성된 결과물을 보여주는 것이 아니라, 무언가를 공유하고 만드는 현재 진행형의 워크숍 공방 및 제작연구소 형식의 플랫폼이 되고자 합니다.

TOTAL MUSEUM  
OF CONTEMPORARY ART



# design without Design

## ⑤ 노동은 로봇에게? ———

### 3D 프린터 만들기 ‘노동은 로봇에게?’

2016.6.10 (금) – 2016.6.12 (일)

장소. 토탈미술관 전시장

시간. 오후 2시 - 5시

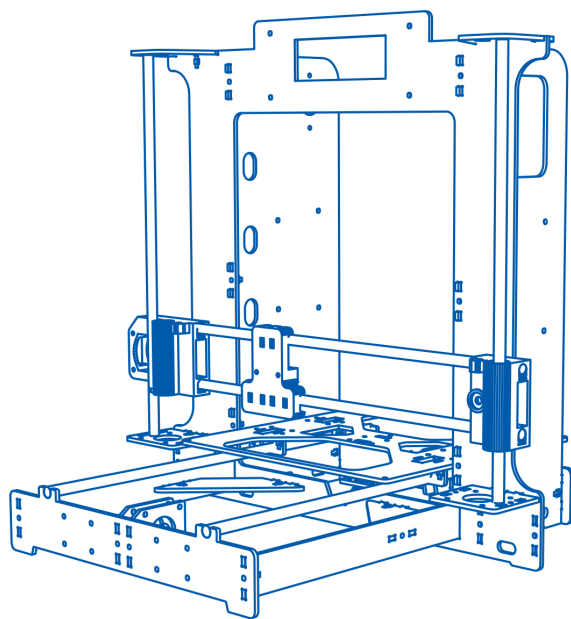
진행. 임도원 작가

참가비. 50만원 (입금 완료 후 예약확인이 가능합니다.)

입금계좌. 우리은행 우체진 1002-954-266510

예약 및 문의. 02-379-3994 / info@totalmuseum.org

예로부터 사진, 물감의 발명과 같은 새로운 기술이 만들어지면 그 영역을 확장, 보급, 발전시키는 일은 예술가들의 일이었듯이 3D프린팅 또한 결국 예술가들의 손에 쥐어주어야 할 새로운 도구가 되었습니다. 3D프린터에 대한 관심은 있었지만 어떻게 접근해야 할지 몰라서 아직까지 망설이고 계셨다면, 차근차근 프린터를 직접 만드는 것부터 사용방법까지 함께 배워 보는 건 어떨까요? 직접 우리의 새로운 도구인 ‘3D프린터’를 만들어보고, 사용방법을 배워 능숙하게 노동을 로봇에게 맡겨봅시다!



\* 워크샵은 3일 연속 진행되며 참가비에는 본인의 3D프린터를 만들 수 있는 재료비가 포함되어 있습니다.

## workshop

### ◀design without Design▶

2016.5.3 (화) – 2016.6.26 (일)

참여작가. 릴리쿰, 반보레-멘첼, 에우제니아 모르푸르고 & 소피아 구겐버거, 이중한&살렛 떼에, 임도원, 제로랩, 토마 바이, 팸랩 서울  
협력. 릴리쿰, 상명대학교 생활예술학과, 심플프로젝트 컴퍼니, 아터테인, 팸랩 서울

본 프로젝트는 제목에서 보여주듯, 디자인 영역에 포괄할 수 있는 다양하고 창의적인 실험을 소개하며 ‘디자인’ 본연의 의미, 그리고 디자이너의 사회적인 역할과 책임에 대해서 고민하는 자리입니다. 따라서 기존의 제품 디자인 전시들과는 달리 실험적인 디자인을 소개하고 아이디어를 공유하며, 관객 스스로가 제작할 수 있도록 하는 자리입니다. 또한 이미 완성된 결과물을 보여주는 것이 아니라, 무언가를 공유하고 만드는 현재 진행형의 워크샵 공방 및 제작연구소 형식의 플랫폼이 되고자 합니다.

TOTAL MUSEUM  
OF CONTEMPORARY ART

# design without Design

## ⑥ 전자요리 오픈 키친 ———



### 전자요리 연구회 워크숍 ‘지지지직’ 2016.6.3 (금) 4-6pm

장소. 토탈미술관 전시장

진행. 전자요리 연구회

참가인원. 7명 (참가 신청서 검토 후 선발, 연락드립니다.)

참가신청. [www.totalmuseum.org](http://www.totalmuseum.org) 및 페이스북/블로그/

인스타그램을 통해 신청서 작성 (참가비 무료)

문의. 02-379-3994 / [info@totalmuseum.org](mailto:info@totalmuseum.org)

‘전자 요리 연구회’는 전자 제품의 메뉴얼을 익히기에 그치는 우리의 일상을 변화시켜 기술과의 거리를 좁힐 수 있는 각자의 방식을 연구하고자 하는 사람들이 모인 집단입니다. 과거의 기술이 사람과 사람을 연결하는 기술이었던 것에 비해, 현재의 기술은 갈수록 직접 만지기 어려운 추상적인 환경이 되어가고 있죠. <design without Design> 에서 실험할 전자 요리 연구회의 프레젠테이션은 기술과 나의 간극을 인지하고 즐거운 방식으로 풀어내 공감대를 확장해보는 시도를 하고자 하며, 동시에 과학과 기술을 개인이 향유할 수 있는 ‘개인 과학’을 지향하는 문화가 디자인을 통해 생산될 수 있는지 그 가능성을 묻는 탐색이기도 합니다.

## workshop

### <design without Design> 2016.5.3 (화) – 2016.6.26 (일)

참여작가. 릴리쿰, 반보레-멘델, 에우제니아 모르푸르고 & 소피아 구겐버거, 이종한&살럿 떼에, 임도원, 제로랩, 토마 바이, 팸랩 서울  
협력. 릴리쿰, 상명대학교 생활예술학과, 심플프로젝트 컴퍼니, 아터테인, 팸랩 서울

본 프로젝트는 제목에서 보여주듯, 디자인 영역에 포괄할 수 있는 다양하고 창의적인 실험을 소개하며 ‘디자인’ 본연의 의미, 그리고 디자이너의 사회적 역할과 책임에 대해서 고민하는 자리입니다. 따라서 기존의 제품 디자인 전시들과는 달리 실험적인 디자인을 소개하고 아이디어를 공유하며, 관객 스스로가 제작할 수 있도록 하는 자리입니다. 또한 이미 완성된 결과물을 보여주는 것이 아니라, 무언가를 공유하고 만드는 현재 진행형의 워크숍 공방 및 제작연구소 형식의 플랫폼이 되고자 합니다.

# design without Design

## 7 개인의 생산

### 1인 제조 시스템, 제작 워크숍

2016.6.11 (토) – 2016.6.26 (일)

장소. 토탈미술관 전시장

진행. 정혜린 (릴리쿰)

참가비. 22만원 (석고, 흙슬립, 3D프린팅 PLA, 유약, 소성비 포함)

입금계좌. 우리은행 우체진 1002-954-266510

모집인원 및 준비물. 4명, 랩탑 지참 (라이노3D 설치), 작업복 착용  
신청 및 문의. 02-379-3994 / info@totalmuseum.org

이 워크숍은 총 4회로, 연속 참여 필수입니다.

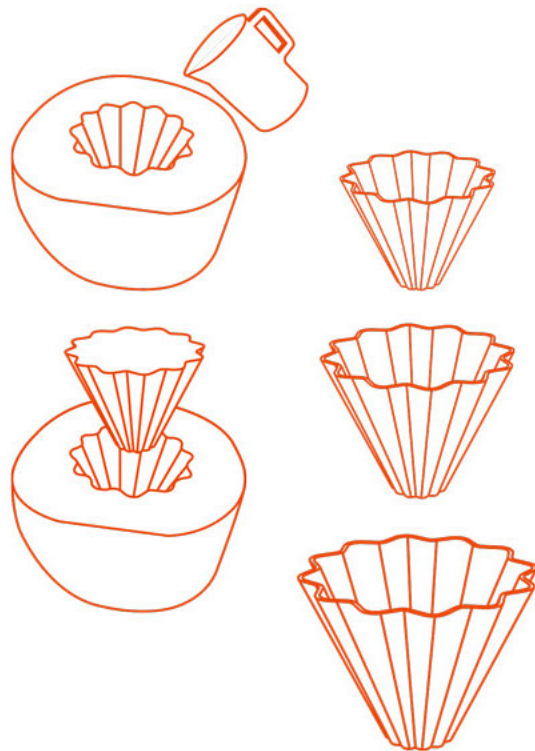
#1. 11일 (토) 11am – 4pm 도자로 만들 물건 3D 설계 및 출력

#2. 12일 (일) 11am – 4pm 출력물로 석고를 제작하기

#3. 19일 (일) 3pm – 6pm 슬립캐스팅 시작

#4. 26일 (일) 도자기와 꿈의 가구를 이용한 자유 제작 및 전시

'개인의 생산'은 디지털 제조 기술로 내가 디자인할 물건을 만들고, 공예 기법으로 석고틀을 제작하여 1인 제조 시스템을 갖추어보는 제작 워크숍입니다. 틀이 제작되면 흙물(슬립)을 부어 도자 소재의 물건을 직접 캐스팅하고 소성하여 하나의 완성된 물건으로 탄생시킬 수 있습니다. \*슬립캐스팅은 석고틀을 이용하여 하나의 물건을 여러번 반복해서 생산할 수 있는 기법입니다. 이 워크숍에서는 소량이라도 다양한 생산을 가능하게 하는 제조 방식으로 바라보고자 합니다.



## workshop

### «design without Design»

2016.5.3 (화) – 2016.6.26 (일)

참여작가. 릴리쿰, 반보레-멘델, 에우제니아 모르푸르고 & 소피아 구겐버거, 이종한&살렛 떼에, 임도원, 제로랩, 토마 바이, 팸랩 서울  
협력. 릴리쿰, 상명대학교 생활예술학과, 심플프로젝트 컴퍼니, 아터테인, 팸랩 서울

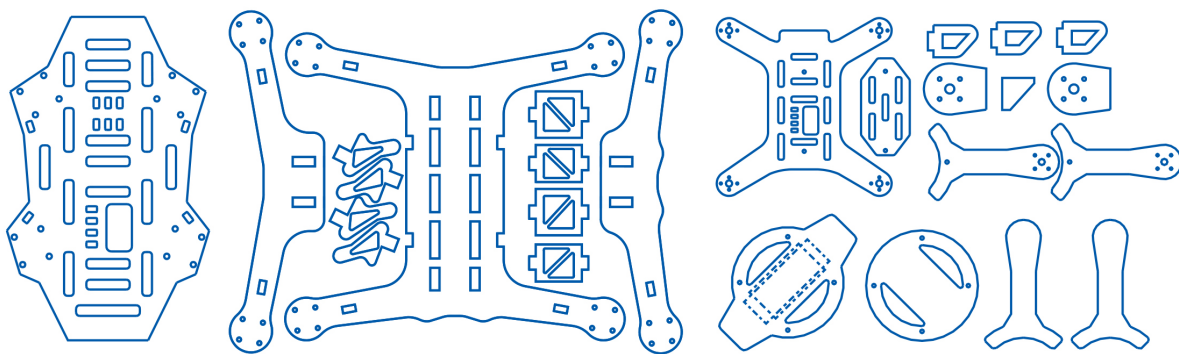
본 프로젝트는 제목에서 보여주듯, 디자인 영역에 포괄할 수 있는 다양하고 창의적인 실험을 소개하며 '디자인' 본연의 의미, 그리고 디자이너의 사회적인 역할과 책임에 대해서 고민하는 자리입니다. 따라서 기존의 제품 디자인 전시들과는 달리 실험적인 디자인을 소개하고 아이디어를 공유하며, 관객 스스로가 제작할 수 있도록 하는 자리입니다. 또한 이미 완성된 결과물을 보여주는 것이 아니라, 무언가를 공유하고 만드는 현재 진행형의 워크숍 공방 및 제작연구소 형식의 플랫폼이 되고자 합니다.

TOTAL MUSEUM  
OF CONTEMPORARY ART



# design without Design

## ⑧ 드론 제작 워크숍



### 드론 제작 워크숍 '두다다다'

2016.6.14 (화) – 2016.6.17 (금)

장소. 토탈미술관 전시장

시간. 오후 2시 - 5시

진행. 에두아르도 차모로 (팸랩서울 인스트럭터)

참가비. 25만원 (선착순 6명, 입금완료 후 예약확인이 가능합니다.)

입금계좌. 우리은행 우혜진 1002-954-266510

예약 및 문의. 02-379-3994 / info@totalmuseum.org

\* 워크숍은 4일 연속 진행되며 참가비에는 드론 재료비가 포함됩니다.

#1. 14일(화): 드론 이론, 프레임 디자인 및 출력

#2. 15일(수): 드론 제작1\_출력된 프레임에 드론 부속 조립

#3. 16일(목): 드론 제작2\_조립

#4. 17일(금): 드론 조립 마무리 및 비행연습

'드론'이라 함은 무선전파로 조종할 수 있는 카메라, 센서, 통신시스템 등이 탑재된 무인 항공기를 지칭하는 말입니다.

처음에는 군사용으로 생겨났지만 최근에는 고공 촬영과 배달 등으로 확대되었고 최근에는 키덜트 제품으로 재탄생되어 개인도 부담없이 구입할 수 있는 시대가 되었습니다. 우리는 여기서 한 발 더 나아가 직접 프레임을 디자인하고 제작하여 나만의 드론을 띄워보는건 어떨까요?

## workshop

### <design without Design>

2016.5.3 (화) – 2016.6.26 (일)

참여작가. 릴리쿰, 반보레-멘첼, 에우제니아 모르푸르고 & 소피아 구겐버거, 이중한&살렛 떼에, 임도원, 제로랩, 토마 바이, 팸랩 서울  
협력. 릴리쿰, 상명대학교 생활예술학과, 심플프로젝트 컴퍼니, 아터테인, 팸랩 서울

본 프로젝트는 제목에서 보여주듯, 디자인 영역에 포괄할 수 있는 다양하고 창의적인 실험을 소개하며 '디자인' 본연의 의미, 그리고 디자이너의 사회적인 역할과 책임에 대해서 고민하는 자리입니다. 따라서 기존의 제품 디자인 전시들과는 달리 실험적인 디자인을 소개하고 아이디어를 공유하며, 관객 스스로가 제작할 수 있도록 하는 자리입니다. 또한 이미 완성된 결과물을 보여주는 것이 아니라, 무언가를 공유하고 만드는 현재 진행형의 워크숍 공방 및 제작연구소 형식의 플랫폼이 되고자 합니다.

TOTAL MUSEUM  
OF CONTEMPORARY ART

# design without Design

## ⑨ Hanoch Piven

**일러스트레이터 하노흐 피벤 워크샵**  
**2016.6.18 (토) 10am - 12pm**

**장소.** 토탈미술관 전시장

**진행.** 하노흐 피벤 (일러스트레이터), 김은아 (토탈미술관 에듀케이터)

**참가비용 및 대상.** 참가비 무료 / 연령 제한 없음 (7세 이상)

**준비물.** 깨끗하고 안전한 것으로 고장난 인형, 빗, 머리핀, 컴퓨터 부속, 단추, 못, 오래된 사진, 날개 등 주변에서 볼 수 있는 오래되고 더 이상 쓸모 없는 모든 아이템 (기본 재료는 미술관에서 준비합니다.)

**신청 및 문의.** 02-379-3994 / info@totalmuseum.org

**주최.** 주한이스라엘대사관

“예술을 통해 발전시키는 소통의 방법”을 주제로, 우리의 일상에서 너무 쉽게 볼 수 있는 버려진 모든 물건을 이용해 나만의 그림을 완성해보는 참여형 워크샵에 여러분을 초대합니다. 주변의 사물로 콜라주를 통해 완성된 창작품은 작가가 이야기하는 창의성, 소통, 자기성찰과 지속가능성에 대해 이해하는 기회가 될 것입니다. 2003년부터 진행되어 온 하노흐 피벤의 워크숍은 쉽고 재미있게 창의성을 경험하는 것 외에도, 놀이를 통해 소통하는 유용한 방법으로 많은 교육자, 미술치료사, 상담사들에게 사랑을 받으며 이스라엘 뿐 아니라 미국, 중국, 스페인, 과테말라, 싱가포르, 브라질, 태국 등 다양한 나라의 학생, 선생님, 정부부처 관계자, IT 기업 종사자들을 대상으로 워크샵을 진행해오고 있습니다.



# workshop

**<design without Design>**  
**2016.5.3 (화) - 2016.6.26 (일)**

**참여작가.** 릴리쿰, 반보레-멘첼, 에우제니아 모르푸르고 & 소피아 구겐버거, 이종한&살렛 떼에, 임도원, 제로랩, 토마 바이, 팸랩 서울  
**협력.** 릴리쿰, 상명대학교 생활예술학과, 심플프로젝트 컴퍼니, 아티테인, 팸랩 서울

본 프로젝트는 제목에서 보여주듯, 디자인 영역에 포괄할 수 있는 다양하고 창의적인 실험을 소개하며 ‘디자인’ 본연의 의미, 그리고 디자이너의 사회적 역할과 책임에 대해서 고민하는 자리입니다. 따라서 기존의 제품 디자인 전시들과는 달리 실험적인 디자인을 소개하고 아이디어를 공유하며, 관객 스스로가 제작할 수 있도록 하는 자리입니다. 또한 이미 완성된 결과물을 보여주는 것이 아니라, 무언가를 공유하고 만드는 현재 진행형의 워크샵 공방 및 제작연구소 형식의 플랫폼이 되고자 합니다.

**TOTAL MUSEUM**  
 OF CONTEMPORARY ART

# design without Design

## 10 라이브 페인팅

### 라이브페인팅 '기억의 목적'

2016.6.14 (화) – 2016.6.26 (일)

장소. 토탈미술관 전시장

시간. 오후 2시 - 6시 (월/목요일 제외)

진행. 정고요나 작가

문의. 02-379-3994 / info@totalmuseum.org

라이브 페인팅은 카메라를 설치하고 실시간으로 벌어지는 일들 혹은 풍경들이 작업할 공간에 설치된 프로젝터를 통해 캔버스에 옮겨지고 그것을 라이브로 그려내는 퍼포먼스와 그 결과물로서의 작업입니다. 메마르고 무거운 현실에서는 내게 또 다른 현실이 있었으면 하고, 지나가는 시간은 잠시 매어두고 싶습니다. 그런 의미에서 이 전시에서는 인식하자마자 과거가 되고 작품으로 구상되는 순간 미래가 되는 찰나를 잡아 나가는 라이브 페인팅을 실행합니다. 비동시적일 수밖에 없는 과거와 현재 그리고 미래의 간극을 없앴을 때 벌어지는 현상들에 대한 실험들의 완성을 이루고자 하는 의도를 담은 퍼포먼스의 기록이 될 것입니다.



## live painting

### <design without Design>

2016.5.3 (화) – 2016.6.26 (일)

참여작가. 릴리쿰, 반보레-멘첼, 에우제니아 모르푸르고 & 소피아 구겐버거, 이중한&살렛 떼에, 임도원, 제로랩, 토마 바이, 팸랩 서울 협력. 릴리쿰, 상명대학교 생활예술학과, 심플프로젝트 컴퍼니, 아터테인, 팸랩 서울

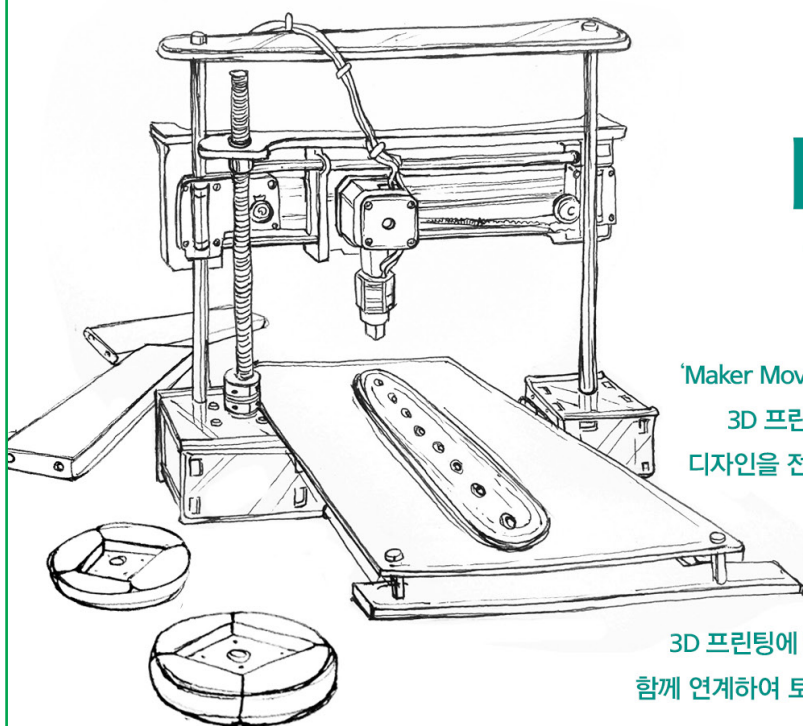
본 프로젝트는 제목에서 보여주듯, 디자인 영역에 포괄할 수 있는 다양하고 창의적인 실험을 소개하며 '디자인' 본연의 의미, 그리고 디자이너의 사회적 역할과 책임에 대해서 고민하는 자리입니다. 따라서 기존의 제품 디자인 전시들과는 달리 실험적인 디자인을 소개하고 아이디어를 공유하며, 관객 스스로가 제작할 수 있도록 하는 자리입니다. 또한 이미 완성된 결과물을 보여주는 것이 아니라, 무언가를 공유하고 만드는 현재 진행형의 워크숍 공방 및 제작연구소 형식의 플랫폼이 되고자 합니다.

TOTAL MUSEUM  
OF CONTEMPORARY ART



# design without Design

## Makers Movement



'Maker Movement', 'Digital Craftman'이라는 단어와 함께 3D 프린팅이라는 도구가 우리 주변에 보편화 됐음에도, 디자인을 전공하는 대학생들이 이를 직접 접하여 경험하고 배울 기회는 적습니다.

이에 준비한 이번 상명대 워크샵은 토탈 미술관 'design without Design'의 프로그램으로, 3D 프린팅에 관한 설명과 사용법을 전문가에게 직접 배우고, 함께 연계하여 토탈미술관에서 전시할 수 있는 프로그램입니다.

본 워크샵은 국내 최초의 사립미술관인 토탈미술관을 설립한 문신규 회장이 1977년 직접 고안하여 제작한 DIY 제작 키트 '꿈의 가구'를 재료로 하여 진행됩니다.

'디자인'을 전공하는 대학생들에게 본 워크샵은 'Maker'라는 집단이 추구하는 목표와 '디자인'이라는 영역이 지니는 본연의 의미와 디자이너의 사회적 역할과 책임에 대하여 생각해볼 수 있는 기회가 될 것입니다.

### 상명대 워크샵 Makers movement

2016.5.21 (토) – 2016.6.11 (토)

#### 프로그램 내용

- 1주차 : 5/21 (토) About 'Makers Movement'  
2주차 : 5/28 (토) About '3D Printing' (1) (진행 : 임도원 아티스트)  
3주차 : 6/4 (토) About '3D Printing' (2) (진행 : 임도원 아티스트)  
4주차 : 6/11 (토) '꿈의 가구' Project  
(상기 일정은 조율하여 변경될 수 있습니다.)

장소. 토탈미술관 전시장

대상. 상명대학교 문화 예술 대학 소속 재학생  
첫 모임. 2016.5.21 (토) 오후 1시  
참가비. 무료

신청 및 문의. 010-5528-4215 / matiasjeon12@naver.com  
02-379-3994 / info@totalmuseum.org

# design without Design

## • Closing Party



2016.6.26. Sun 12 – 6pm

design without Design  
클로징 파티 안내

TOTAL MUSEUM  
OF CONTEMPORARY ART

1. 안쓰는 물건 가져오셔서 물물교환/판매 가능합니다.
2. 프로젝트 기간중 제작한 결과물 구매 가능합니다.
3. 음료/다과/주류 반입 환영합니다.
4. 12시부터 <오픈레서피 #7. 임수미의 원팬 뉴욕 떡볶이> 운영합니다.
5. 5시에는 신제현 작가의 <재난 레시피 퍼포먼스 – 낙지 비빔면>이 진행됩니다.

# Research







# **ENZO MARI**

## **Autoprogettazione**



# **AUTO- PROGETTAZIONE REVISITED**

## **EASY-TO-ASSEMBLE FURNITURE**

**INSTRUCTIONS BY: PHYLLIDA BARLOW,  
BROUSSARD/SEILLES, MARTINO GAMPER,  
RYAN GANDER, GRAHAM HUDSON,  
KEUNG CAPUTO, LUCAS MAASSEN,  
ENZO MARI, JOE PIPAL**

## AUTOPROGETTAZIONE

This project was conceived while looking at two books sitting next to each other on my desk in a hotel room in Paris in 2006. I had just bought a tired old copy of Enzo Mari's catalogue from his 1974 *Autoprogettazione* and at the same time was some way through reading *Independent People*, a novel by Halldór Laxness. It struck me how comfortable Laxness's anti-hero, 'Bjartur of Summerhouses', – a man whose life is devoted entirely to tending a godforsaken field of sheep in turn-of-the-century Iceland – would be in Enzo Mari's world.

Philip Sharratt  
Furniture Gallerist

## AUTOPROGETTAZIONE REVISITED

*Autoprogettazione Revisited* celebrates the influence of renowned Italian designer Enzo Mari's 1970s project for self-made furniture. Free on request, it contained a set of instructions for 19 pieces of furniture in the form of cutting plans and axonometric drawings. A personal manifesto, Mari's text laid out the issue he saw as central to industrial production – the quality-quantity ratio, quality being defined as when the shape of a product does not 'seem' but simply 'is'. For Mari, this statement was not a paradox. In a text accompanying the instructions, he wrote that 'anyone, apart from factories and traders, can use the designs to make them by themselves', and asked that photographs of the resulting pieces be sent to his studio – a process that *Autoprogettazione Revisited* aims to continue 35 years after the project's inception.

*Autoprogettazione* has inspired a generation and Mari's influence is apparent in the responses to the project. There is a generosity and sincerity in the resulting work that resonates with the goodwill of Mari's original proposal, from Graham Hudson's orthopaedic benevolence towards cast-off broken chairs in *Design for a Revolution* to Clemence Seilles' and Travis Broussard's *Auto-deproduction* raft that aims to 'celebrate the death and therefore life of all things and beings'. Some of the pieces seem imbued with a personality.

Kueng Caputo's elegant, leggy light *Lampada A Stelo* looks as if it might lope off across the room to light a dark corner while Joe Pipal's *Bookshelf* leans languorously against a wall.

The fact that there are so many chairs on show must tell us something of the fondness for this most intimate of furniture pieces, for the human scale of a chair, the way it holds the body. The chairs in *Autoprogettazione Revisited* evolve from the varying approaches of the designers: Ryan Gander uses two identical Konstantin Grcic Chair Ones treated differently with an Ikea chair pad and a collapsed cardboard box. Gander says, 'I like the point that things already exist, you see, and true problem-solving is to rule nothing out'. Lucas Maassen's beautiful *Script Chair* continues the open-source and collaborative design apparent in the original *Autoprogettazione* thinking, and made topical by proliferating digital technologies. Martino Gamper's *Sedia db* is perhaps the purest response to Mari's originals: a chair so self-assured in its simplicity that it simply 'is'.

Phyllida Barlow's timber flipchart of exuberant drawings reflects the influence that Mari's working method had on her sculptures when, as an art student in the 70s, she was taught the basics of engineering a built work.

Mari was ultimately disappointed with the original response to *Autoprogettazione*, believing that 'only a very few, 1 or 2% understood the meaning of the experiment' expressing frustration that the catalogue was used as a DIY manual explaining '... the end product, although usable, is only important because of its educational value'.

Enzo Mari hoped that the idea of *Autoprogettazione* would last into the future. *Autoprogettazione Revisited* reveals that it has done just that. Not all of the artist/designer responses in *Autoprogettazione Revisited* can be duplicated by the enthusiast, but they are inspirational and without a doubt follow the Mari principle that 'by thinking with your own hands, by [making] your own thoughts you make them clearer'.

Vanessa Norwood  
Head of AA Exhibitions



FRAMING AUTOPROGETTAZIONE:  
NOTES ON THE WORK AND LIFE  
OF ENZO MARI

BY TIMOTHY IVISON

‘The task of transforming is the only course through which knowledge may be obtained.’

The career of Enzo Mari has spanned over five decades of rigorous investigation into everyday spaces and objects. Never content to define the limits of his field, he instead sees his life as ‘devoted entirely to designing forms’. From elegantly simple objects to technically complex exhibition designs, a passion for form and utility permeates his entire body of work. In every medium, his question is the same: *what is essential?* The Autoprogettazione project that forms the basis of this exhibition is one of Mari’s most innovative works, capturing not only his quality of form but also the generosity of his method – what he calls the *égalité* of design.

Mari’s practice as a designer began by circuitous route. Born in Novara in 1932, he was raised primarily in Milan. His family was of modest means but he was sent to the best schools, as his father sincerely hoped he would become a teacher. There was no money for a radio or newspapers, but there were around the house works of classic literature, which young Enzo would try to decipher. While Mari was still at school, his father became ill and, as the eldest son, it fell upon him to go out to work and take care of the family. By Mari’s account he worked at nearly 30 different jobs during this period, trying his hand at any kind of artisanal work he could find. Though it was a struggle to make ends meet, he learned by doing, and always got by through sheer improvisation.

When he realised that he could enrol at the Brera Academy of Fine Arts in Milan without a high school diploma, he took up painting and stage design, applying some of the rudimentary skills he’d learned to the study of fine art. Many of his friends from Milan graduated around this time, and quickly found secure jobs, but he noticed that they had no real interest in their work, preferring to discuss sport, and especially cycling. In this way, Mari realised the meaning of alienated labour – something he continues to rail against more than 50 years

on. His conviction was, and still is, that art and design are their own form of education; that practice and pedagogy are inseparable and that the work itself is a protest against reality – as he says, ‘allegories of a society that, perhaps, could exist’.

In the mid-1950s Mari’s design work evolved out of a synthesis of many of the elements found in these early experiences. His ability to improvise and investigate, to learn by doing – coupled with a keen understanding of spatial dynamics and rigorous attention to form – led to the making of three-dimensional constructions as well as a series of paintings dealing with the geometric abstraction of perspective and the psychology of vision. By 1957, he had met the designer Bruno Munari and expanded his repertoire to the design of exhibitions and displays, as well as graphics. That same year, he made a piece for his own children, 16 Animali, which Bruno Danese would later put into production for his gallery. Essentially a children’s toy, 16 Animali was a wood block puzzle that seemed to encapsulate the whole of Mari’s design philosophy: a work of essential forms, arranged in a functional manner, operating in three dimensions and educating the user through the process of their transformation of the objects. The piece was a success and he soon moved towards product design as a viable outlet for his creative energies.

Beginning in the early 1960s with his work for Danese, Mari truly came into his own as a product designer, working on everything from trays and paperweights to flower vases and lamps. This transition gave rise to one of the hallmark tensions in Mari’s work – the tension between the vision of the craftsman artist and the opportunities and limitations of working in an industrial context. A self-described leftist, Mari was ideologically aligned with the radical student and workers’ movements of the 1960s and 70s, and was opposed to the division of labour, and yet, as a designer, he wanted to believe in the democracy of mass production. He seemed intent on elevating industry to an art form – grafting two opposites.

Thus, Mari invested an unprecedented level of personal education and involvement in fabrication in an industry that had become complacent about the standards of the assembly line. Indeed, Mari still believes

strongly in the innate pedagogical role of design and is always searching for the ideal interaction between himself, the industrial process and the consumer of his works. The results are not only formally sophisticated but also extremely well made and affordable.

Of course, this is the ideal outcome of Mari's practice. In reality, the Autoprogettazione project, conceived in 1971, was essentially a reaction against the increasing pressure to produce consumer goods for a public that did not understand the kind of quality that Mari was able to achieve. From one perspective, Autoprogettazione was the inevitable fusion of the pedagogical play embodied in 16 Animali, scaled up to the industrial specifications of a complete furniture set. From another perspective, though, one could say that Autoprogettazione was a work born out of frustration, coming right on the heels of the design for a divan bed that was a notorious failure, although indisputably well designed. From the outset Mari was told that no one would buy it – it was *too* conceptual. This led him to reason that if people could somehow participate in the process of making a designed object, they would understand what went into it, and engage in a sympathetic project of discovery. And so Autoprogettazione was born, as a simple set of instructions and materials easily reproducible by anyone with access to basic carpentry tools. Mari had enlisted his audience as the builders of their own environments.

The Autoprogettazione was openly didactic, and for this reason it was attacked by many in the design world who thought that Mari should be pleasing the customer rather than making them work. But if we take the larger view, it immediately becomes clear that the strategies of the project resonated with the counter-cultural mood in Europe and the United States. The desire for open dialogue and participation was embodied in everything from Alan Kaprow's *Happenings* to the DIY ethos of Stewart Brand's *Whole Earth Catalog*, to the work of architect Ken Isaacs, who encouraged young people to 'build your own living structures'. And it is this deep resonance of the objects with their cultural moment that has always set Enzo Mari apart as a designer. Autoprogettazione expresses not only his sincere desire as an artist to connect with his audience through

making, but also the spirit of participation and autonomy emerging in the culture at large.

The spirit of Autoprogettazione continues in the exhibition that you have before you, branching off in radical directions that even Mari never would have predicted. As Mari's career has continued to develop and change, so has the Autoprogettazione, as it gains new relevance for every generation that is discovering its own innate ability to create.

QUESTIONS TO ENZO MARI  
BY VALENTIN BONTJES VAN BEEK  
29 SEPTEMBER 2009

VBVB How much is the catalogue, then or in hindsight, a didactic and educational vehicle rather than a design manual?

EM My intention was that the catalogue was only a fragment of ideas useful to design as a discipline.

VBVB How important is it that people are able to make their own furniture – that they understand the effort that goes into making a chair, a table or a shelf and the consideration that goes into providing a self-build manual that allows them to do something themselves, rather than buying it in a shop.

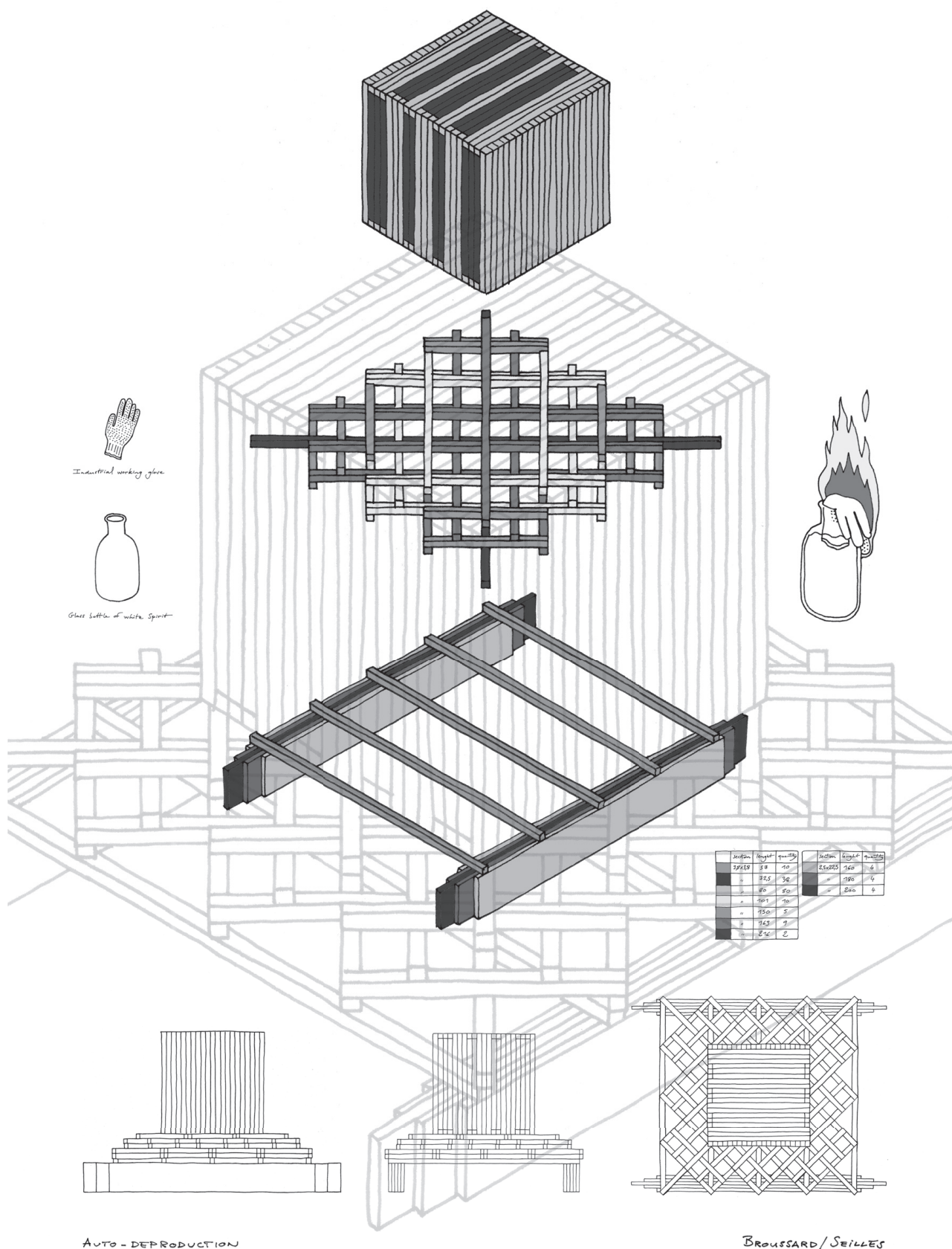
EM It is very important for me that through the manual anyone is potentially able to understand the process of construction.

VBVB If you were to release the Autoprogettazione today, what would you change?

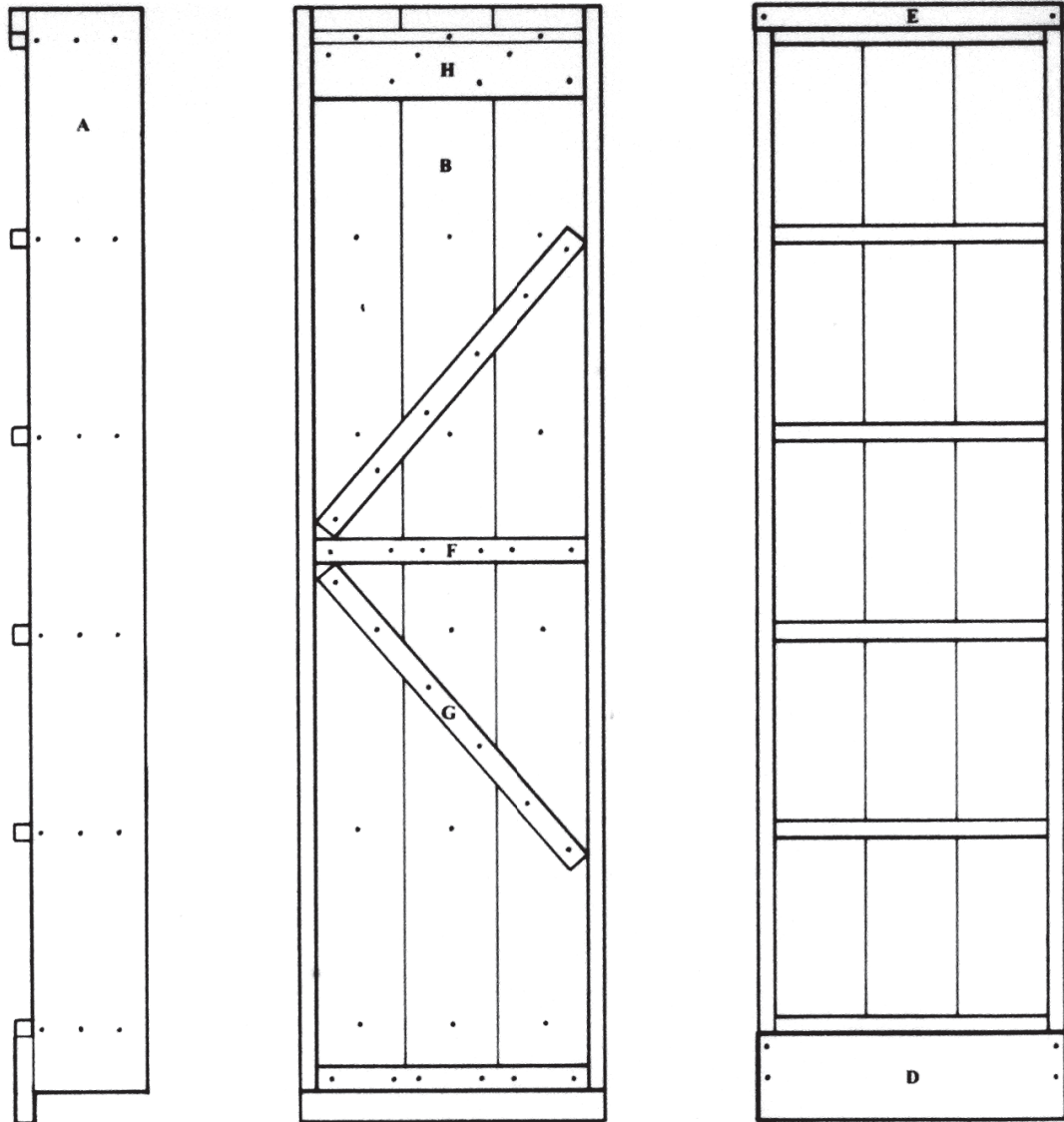
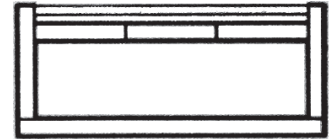
EM It was a desperate gesture for me at the time. If I had to release it again it would need to be updated so as to include all the subsequent aberrations of the design world.

VBVB What does taste mean to you? Do you think that one can learn or teach good taste?

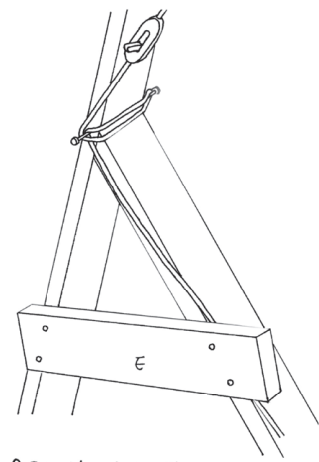
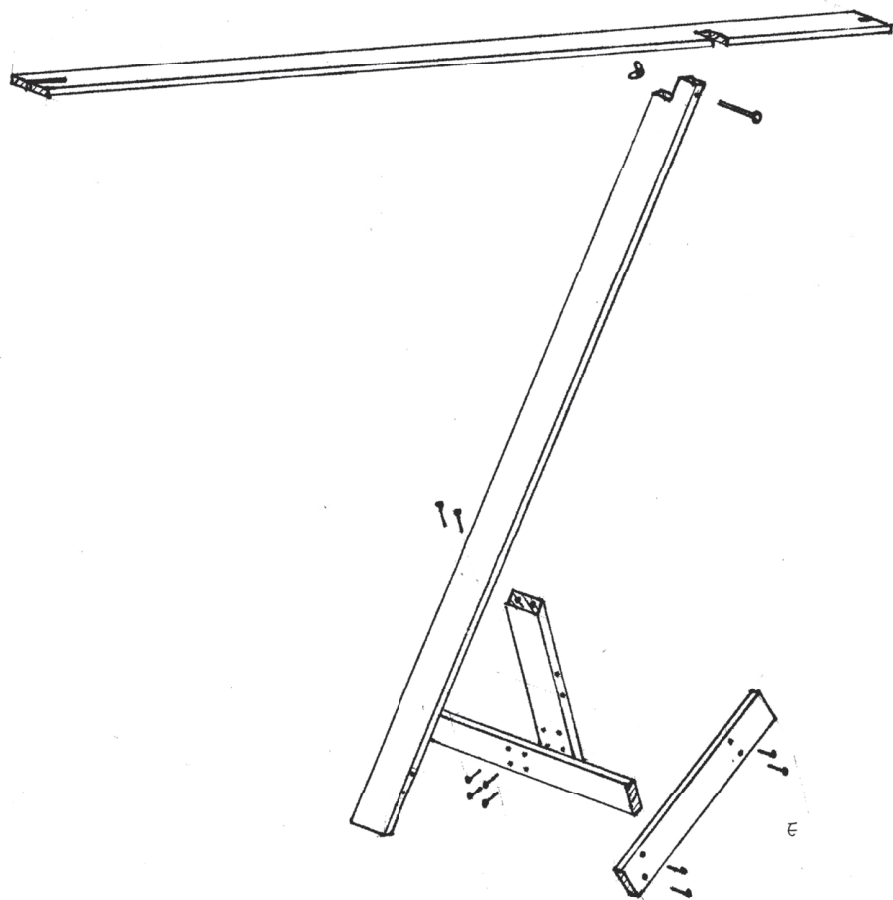
EM Quality can only be judged in comparison to the masterpieces of the past. And this can only be done with a sincere passion for the history of humanity.



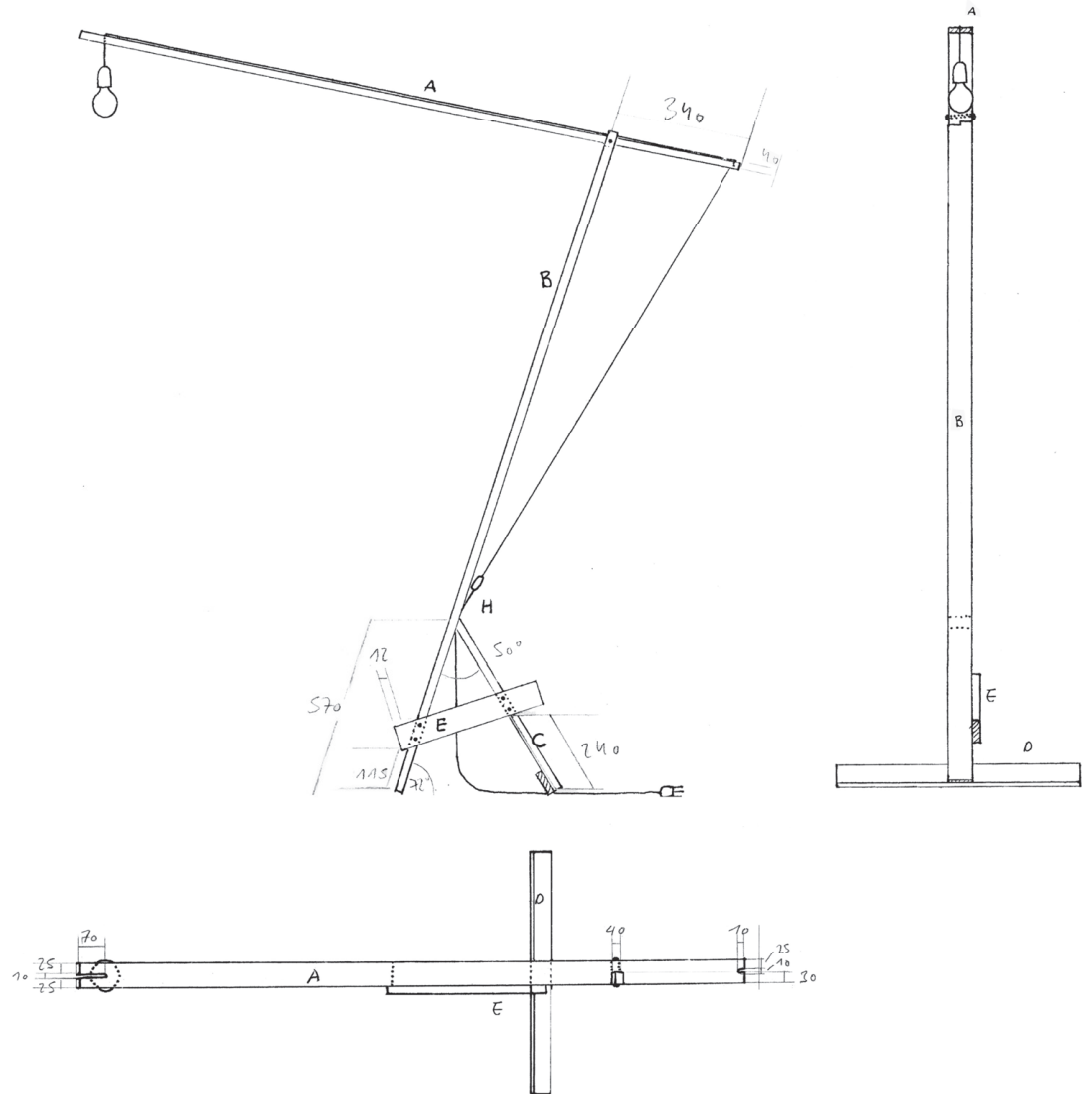




| CUTTING LIST (MM) |          |          |        |     |   |          |           |        |     |
|-------------------|----------|----------|--------|-----|---|----------|-----------|--------|-----|
|                   | MATERIAL | SECTION  | LENGTH | QTY |   | MATERIAL | SECTION   | LENGTH | QTY |
| A                 | PINE     | 144 x 18 | 1400   | 2   | E | PINE     | 32 x 18   | 393    | 1   |
| B                 | —        | 119 x 18 | 1400   | 3   | F | —        | 32 x 18   | 357    | 2   |
| C                 | —        | 119 x 18 | 357    | 6   | G | —        | 32 x 18   | 500    | 2   |
| D                 | —        | 119 x 18 | 393    | 1   | H | —        | 70 x 12.5 | 357    | 4   |



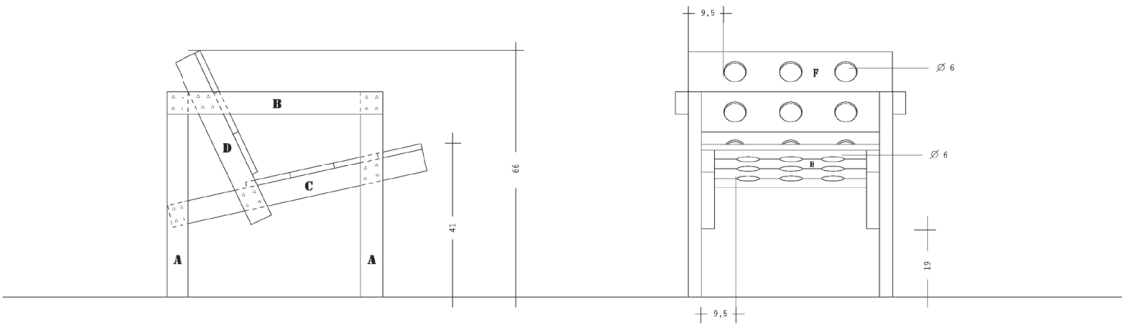
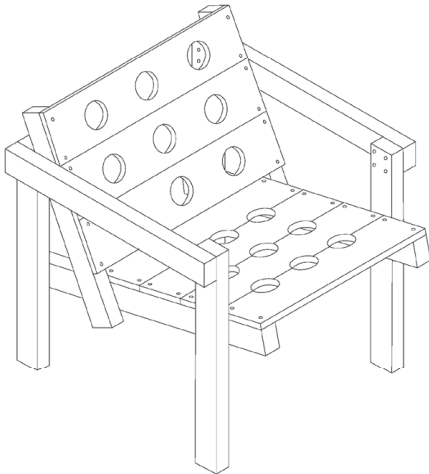
DETAIL KNOT



|   | WIDTH/DEPTH                          | LENGTH | LAMPADA A STELO  |
|---|--------------------------------------|--------|------------------|
| A | 60 x 18                              | 1720mm | KUENG CAPUTO     |
| B | " "                                  | 1780mm | LEIMBACHSTR. 5   |
| C | " "                                  | 620mm  | CH - 8041 ZÜRICH |
| D | " "                                  | 620mm  |                  |
| E | " "                                  | 480mm  | SCALE 1:6        |
| F | LIGHT BULB                           |        |                  |
| G | LAMP HOLDER WITH 4,3m CABLE          |        |                  |
| H | SWITCH AFTER 2,7m (AFTER LIGHT BULB) |        |                  |





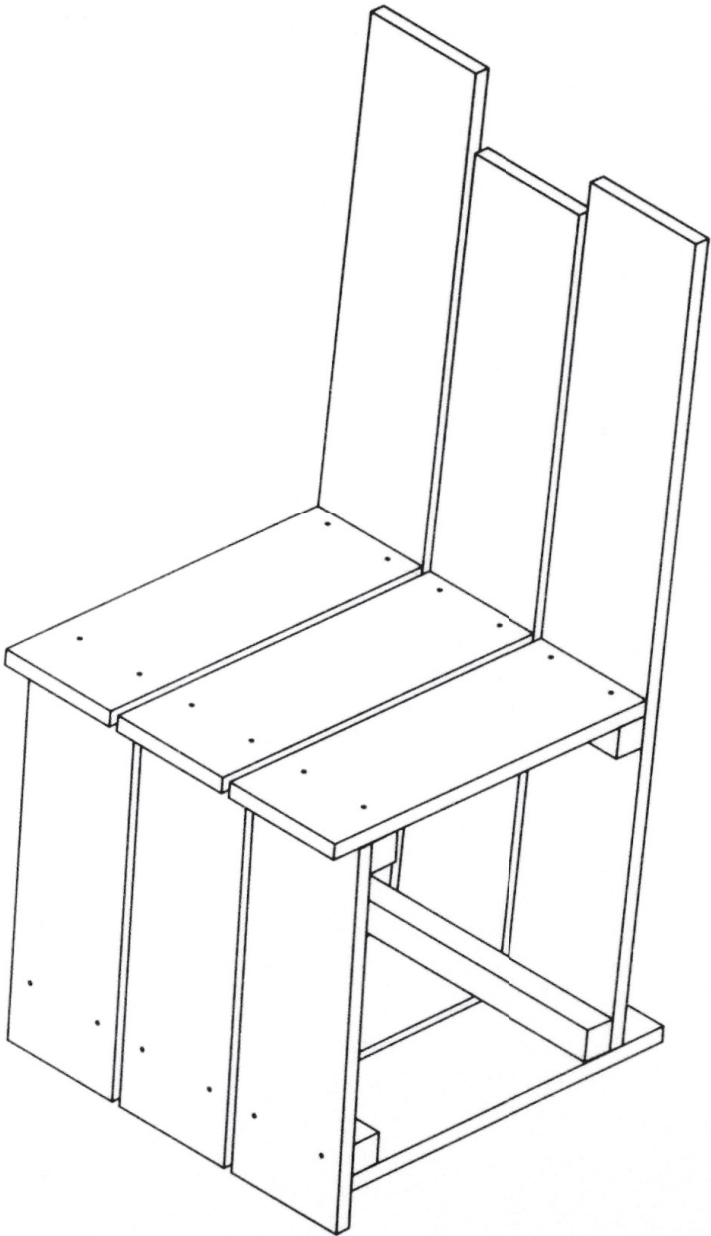
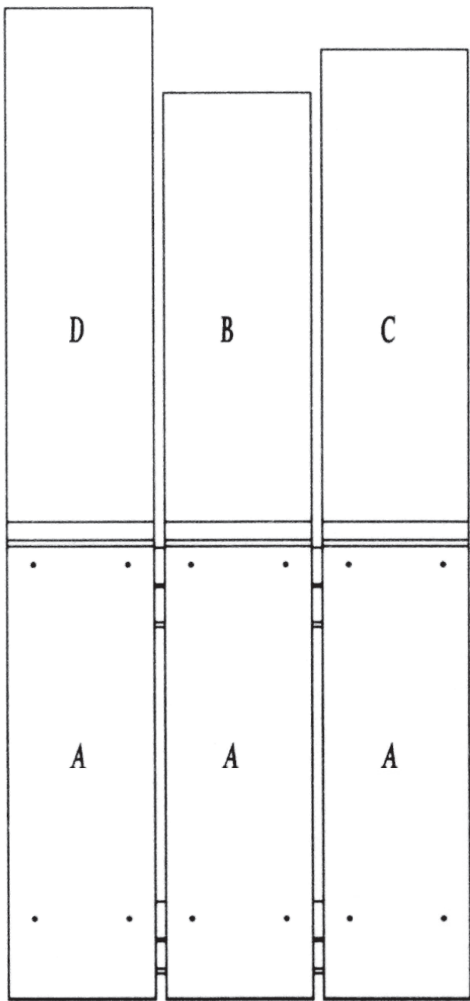
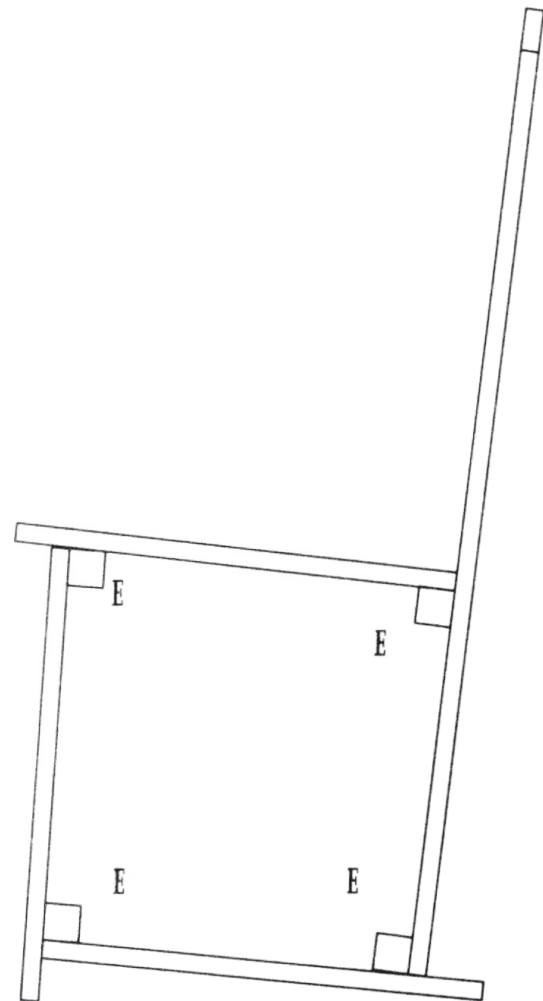
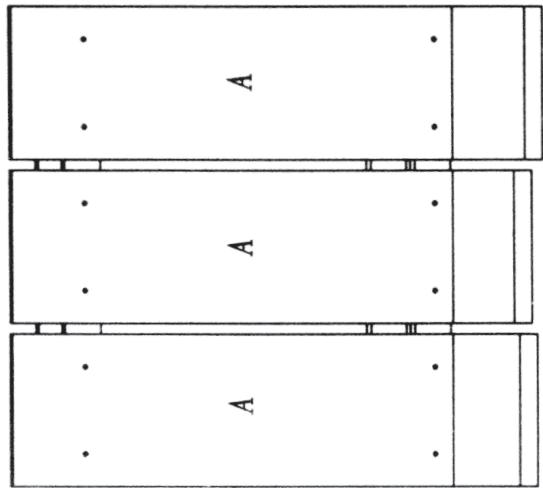


CUTTING LIST (CM)

|          | MATERIAL  | SECTION | LENGHT | QUANTITY |
|----------|-----------|---------|--------|----------|
| <b>A</b> | PINE WOOD | 6 X 3,5 | 55     | 4        |
| <b>B</b> | -         | -       | 58     | 2        |
| <b>C</b> | -         | -       | 70     | 2        |
| <b>D</b> | -         | -       | 48     | 2        |

|          | MATERIAL  | SECTION  | LENGHT | QUANTITY |
|----------|-----------|----------|--------|----------|
| <b>E</b> | PINE WOOD | 12 X 1,5 | 48     | 2        |
| <b>F</b> | -         | -        | 55     | 2        |
|          |           |          |        |          |
|          |           |          |        |          |

|  |                       |                   |
|--|-----------------------|-------------------|
| <b>SCA 1.0</b>                         | SCALE 1:5             | 09 / 09           |
| SCRIPT CHAIR: <b>AUTOPROGETTAZIONE</b> |                       |                   |
| LUCAS MAASSEN                          | ST. MARTIJNSSTRAAT 13 | 5615 PJ EINDHOVEN |
| THE NETHERLANDS                        | WWW.LUCASMAASSEN.COM  |                   |

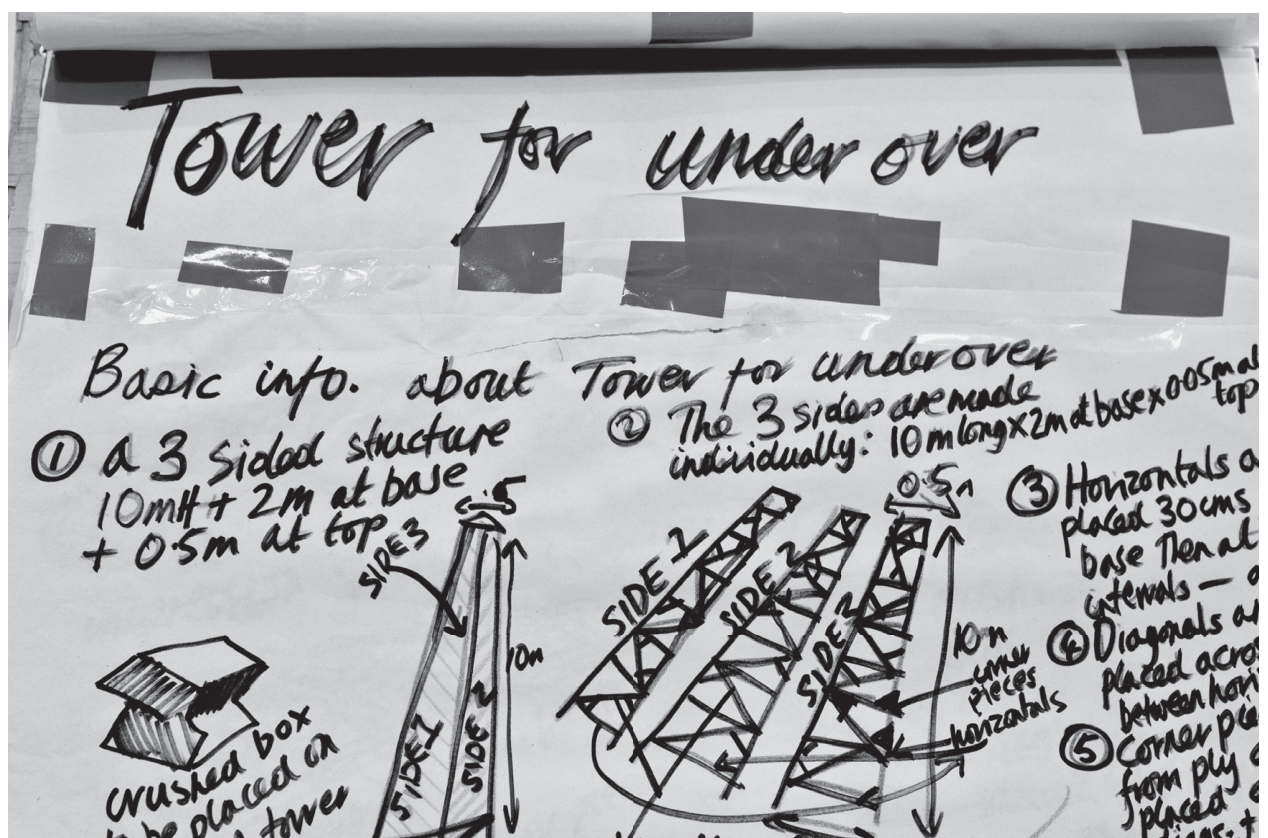
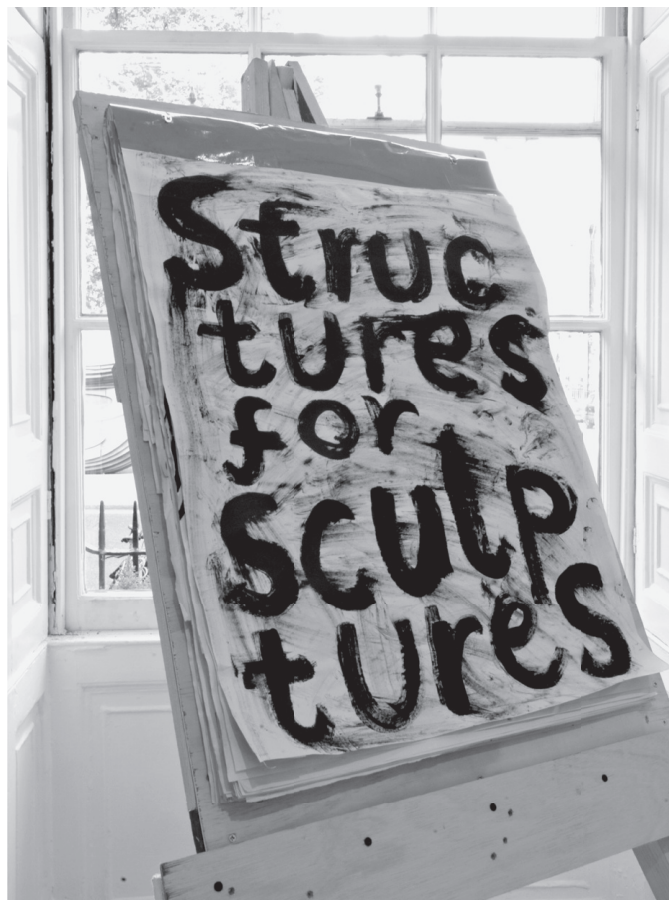


|   | SEZIONE       | LUNGHEZZA | QUANTITA |
|---|---------------|-----------|----------|
| A | 140 x 18/20mm | 410mm     | 9        |
| B | "             | 820mm     | 1        |
| C | "             | 860mm     | 1        |
| D | "             | 900mm     | 1        |
| E | 34 x 34mm     | 440mm     | 4        |

MASTER  
1 0 0 0 0 1

|                             |  |                         |    |
|-----------------------------|--|-------------------------|----|
| BY: MARTINO GAMPER          |  | Date: 12 September 2007 |    |
| Martino Gamper              |  |                         |    |
| sedia db                    |  |                         |    |
| Autoprogettazione-Revisited |  |                         | A3 |
| SCALE: 1:2                  |  | SHEET 1 OF 1            |    |

Phyllida Barlow  
 Untitled: timber flipchart, marker pens, tape  
 Structure realised by Luke McCreadie from  
 drawings by Phyllida Barlow, 2009





## AUTOPROGETTAZIONE STUDENT WORKSHOP

AA First Year Studio Master Valentin Bontjes van Beek led a design workshop allowing three AA students – Korey Kromm, Stefan Laxness and Alma Wang – to respond to the Autoprogettazione manual, and through the modification of Mari's instructions, generate work that experiments with the scale and material of the furniture.

### Brief

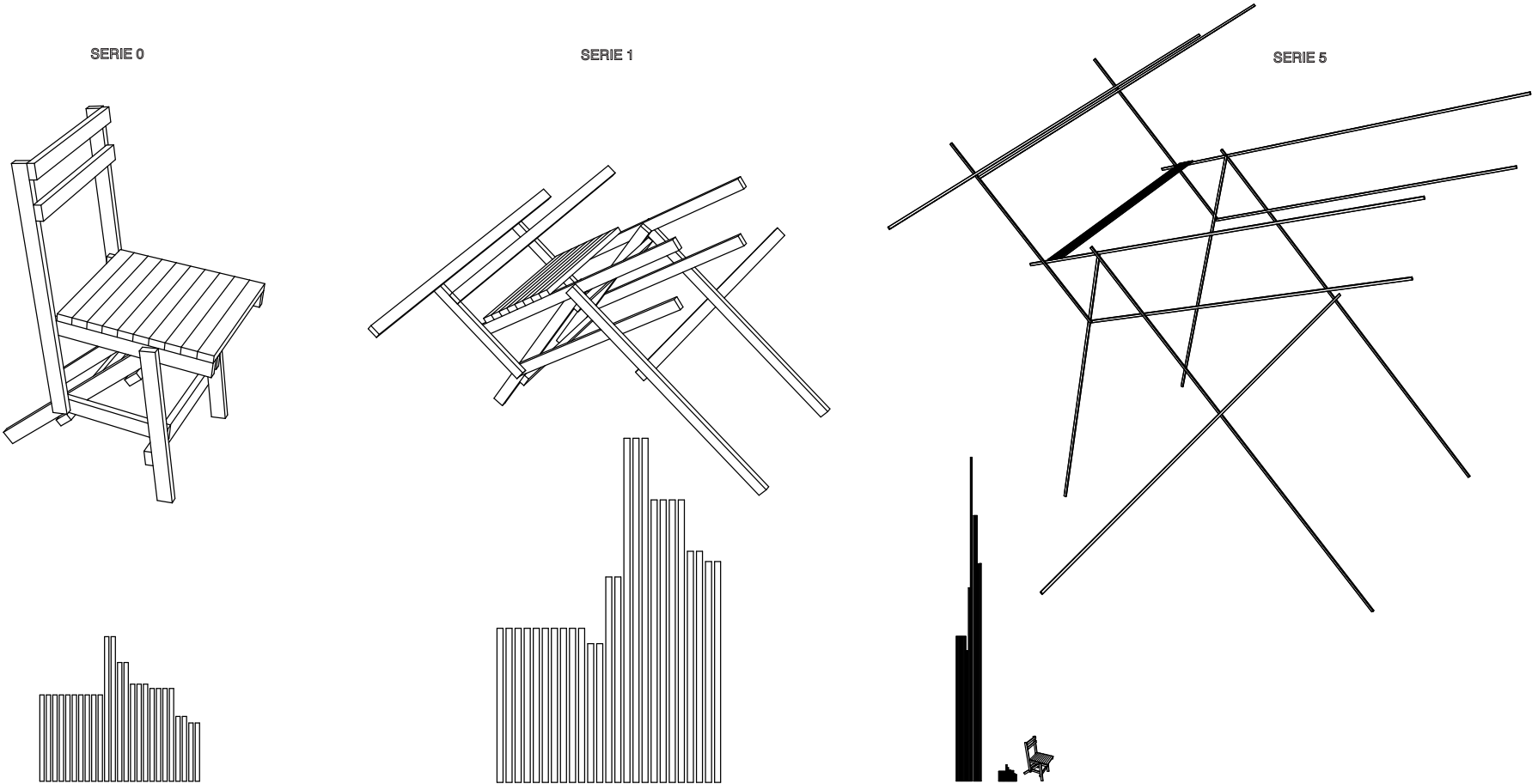
1. Get the Enzo Mari Autoprogettazione book.
2. Choose one piece of furniture from the catalogue and construct the piece as instructed.
3. Fabricate the piece again but this time alter the instruction by a ratio of either 30 or 70 per cent. Any addition, subtraction, scaling, misreading, amplification or whatever you choose to do should be in reference to the original instructions, literally or conceptually. All changes should be first made through the instructions.

### Note

Remember, any instruction is there to be followed or disregarded. This project is about the fabrication of something. Anything that is to be displayed in public has to convey a degree of generosity. Don't be shy.

Valentin Bontjes van Beek

the above image is a  
selected view of the accu-  
mulation of all 7 series of  
chairs around the same  
origin point



SHIFT SYSTEM:

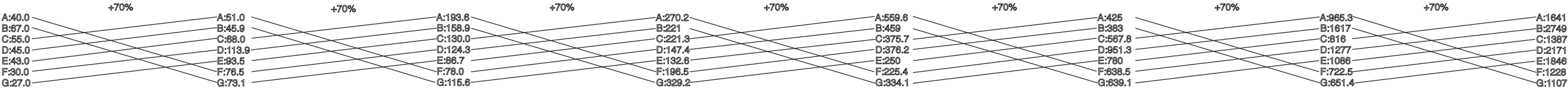
da= dimension of letter d

SERIE 0: A(da) B(da) C(da) D(da) E(da) F(da) G(da)

SERIE 1: A(da) B(da) C(da) D(da) E(da) F(da) G(da)

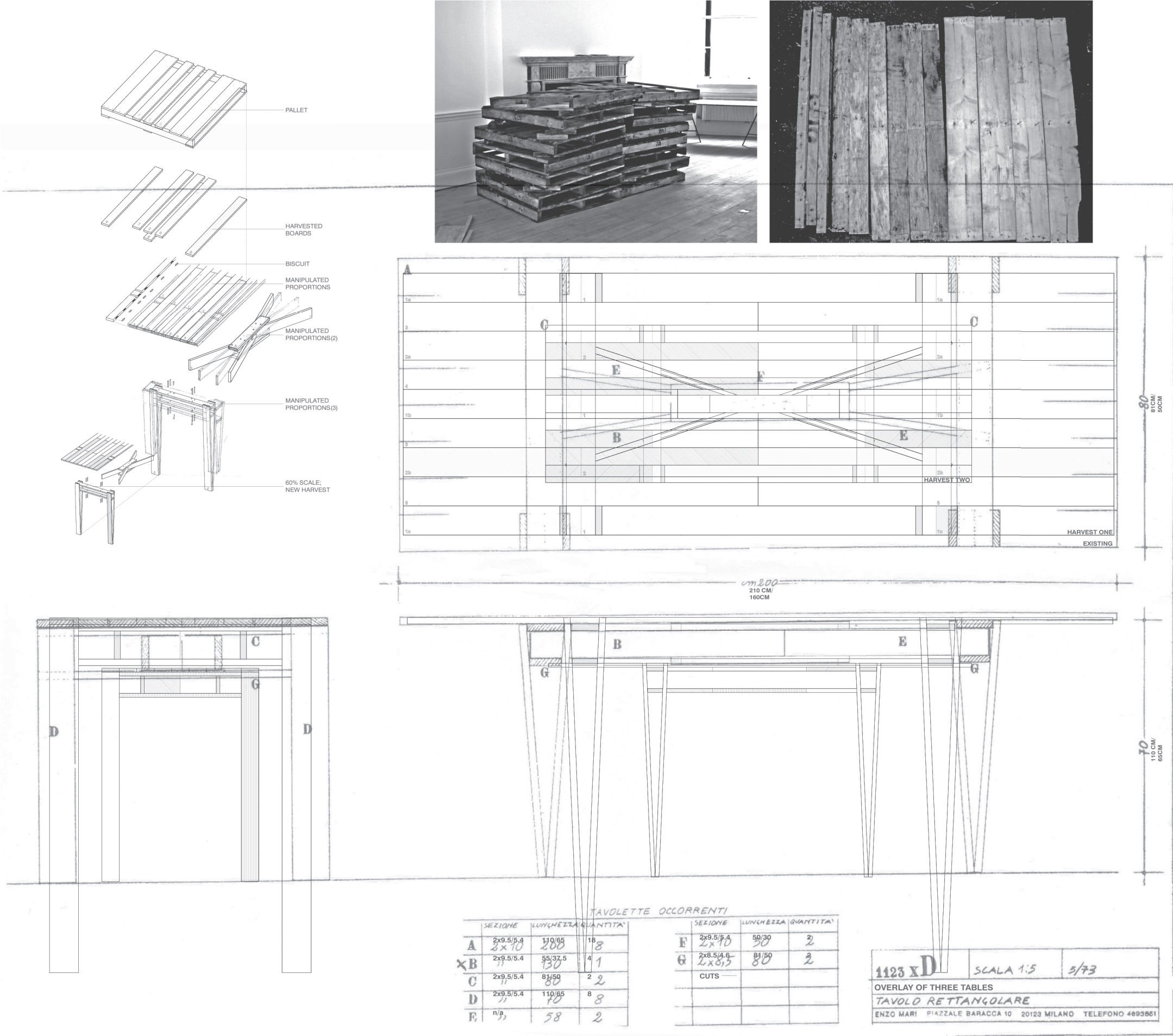
SERIE 2: A(da) B(da) C(da) D(da) E(da) F(da) G(da)

...

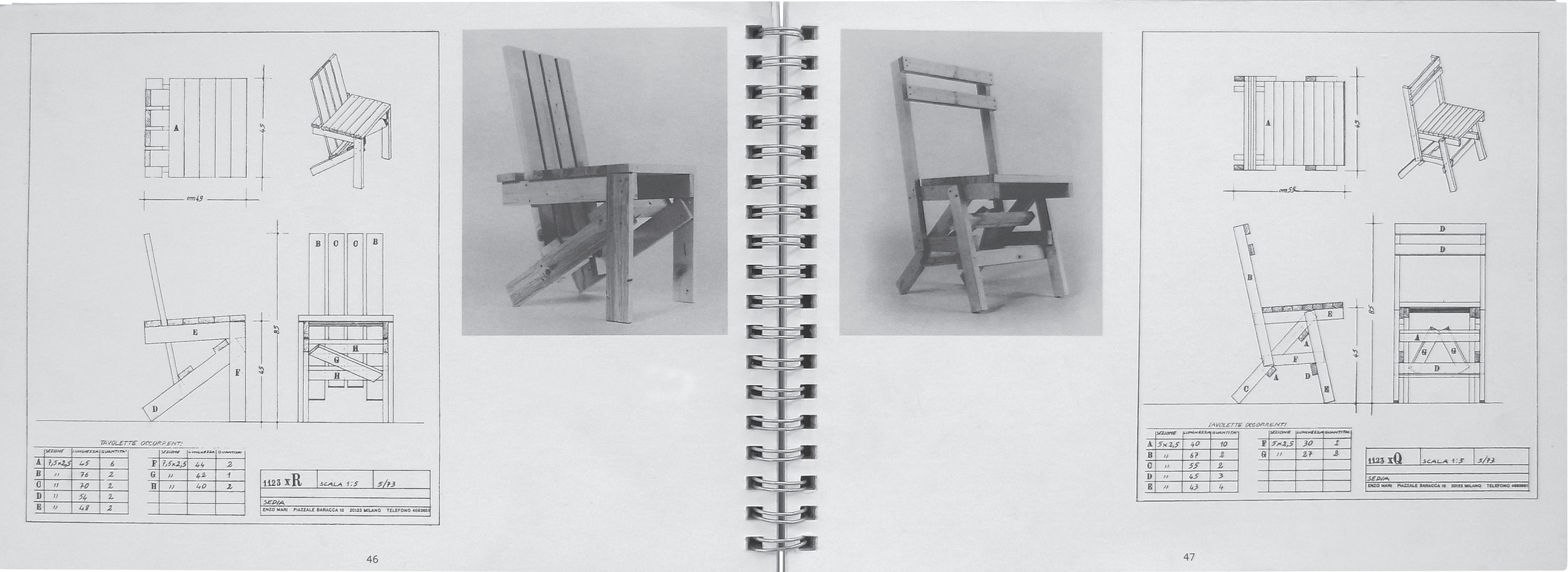
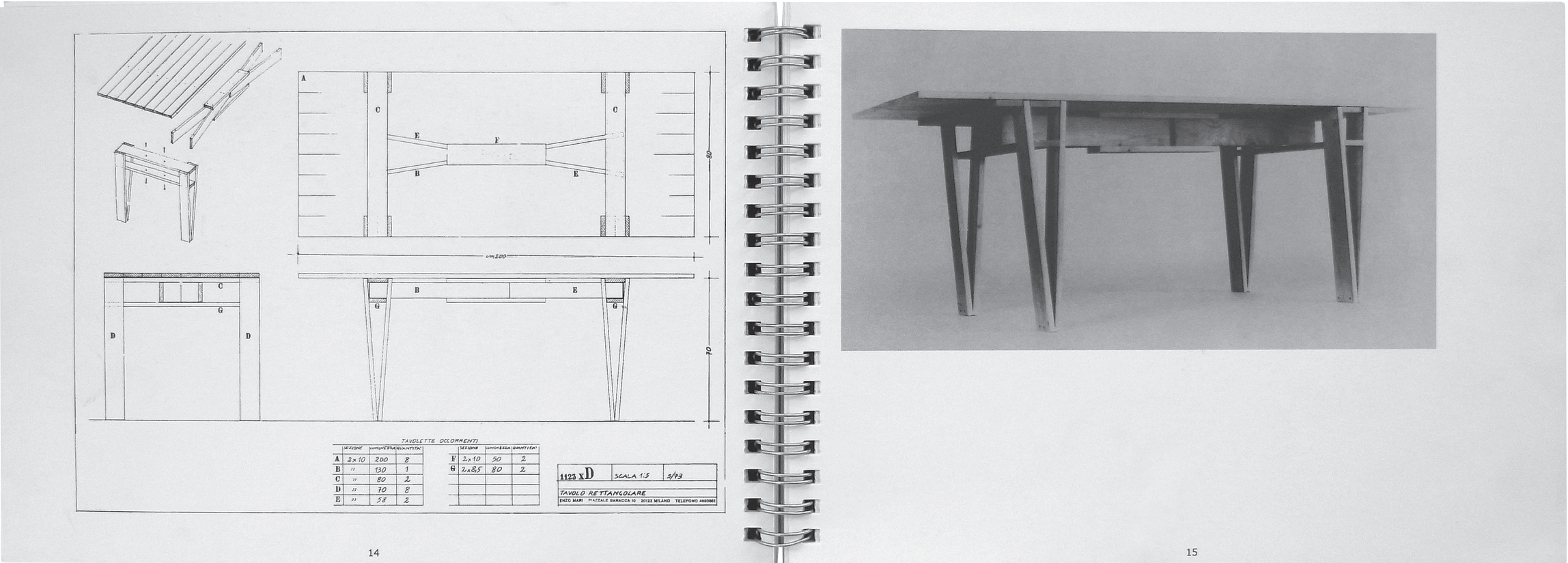


EIGHT CHAIRS: USING ENZO MARI'S ANNOTATION AND A SIMPLE SYSTEM THAT SHIFTS THE DIMENSIONS OF THE PIECES  
NEEDED.

by Stefan Laxness









## CONTRIBUTORS' BIOGRAPHIES

### GRAHAM HUDSON

Hudson's work responds to specific projects and environments using readily available, familiar materials such as cardboard, plastic bags, furniture, scaffolding and pallets. The resulting sculptures are mock-monumental and often seemingly alive – paint spills, tape peels, bits blow over in the wind or teeter on the point of collapse. Many works are material configurations that invite collaborators to participate in their completion; these object arrangements can be understood as performance documentation. Recent group shows include 'Ctrl, Alt shift', Baltic Centre for Contemporary Art, 2009, '6 of 1', live art performance, Camden Arts Centre, 2008 and 'Notes on a Return', Laing Gallery, Newcastle; solo shows at Monitor, Rome, 2009, Jan Cunen Museum, Oss, 2008 and Locust Projects, Miami, 2008. Forthcoming shows include LMCC Sculpture Park, New York, 'Newspeak', Saatchi Gallery, London, 'Lost and Found', Milton Keynes Gallery and a solo show at Zinger PRESENTS, Amsterdam. Graham Hudson was born in Kent in 1977 and lives and works in London.

### PHYLLIDA BARLOW

Phyllida Barlow's work incorporates an enormous range of mass-produced materials including cardboard, fabric, paper, glue, paint, plastic, wood, rubber, hardboard and adhesive tape. Her work questions the nature and role of the sculptural object in contemporary culture, utilising an extensive, fluid vocabulary and immense enthusiasm for engaging with the physical 'stuff' of the world. She sets up new relationships, experimenting with unexpected combinations of materials to create objects and environments which encourage us to see the everyday world with fresh eyes. Recent solo and group shows include Peninsula, an installation commissioned for the Baltic Centre for Contemporary Art, 2004–05 and SKIT, Bloomberg Space, 2005; SCAPE, a ten-sculpture installation commissioned for Spacex, Exeter, 2005

and Works on Paper, Leeds City Art Gallery, new acquisitions by the Henry Moore Foundation, Leeds, 2005–06. Phyllida Barlow was born in Newcastle-upon-Tyne and graduated from the Slade School of Fine Art where she is currently Professor of Fine Art and Director of Undergraduate Studies.

### LUCAS MAASSEN

At what point does furniture exist? Lucas Maassen started exploring this idea in 2002 by listing dollhouse chairs for sale on eBay without mentioning their scale or true nature. They became real furniture in the mind of potential buyers who placed bids on the items. Scale became an important subject in his 2003 graduation work, *Sitting Chairs*, a tableau vivant featuring an animistic family of chairs. Small changes to conventions – such as the removal of rear legs or sometimes the addition of feet, arms and hands – grant the chairs life. Recent work has focused on the OS (OpenStructures) project initiated by Thomas Lomme, which explores the possibility of a modular construction model where everyone designs for everyone else on the basis of one shared geometrical grid. This modular way of designing for the OS grid inspired Maassen to write his own post-digital 'script' for the 'Script Furniture' series. Lucas Maassen is a graduate of the Design Academy Eindhoven and has worked for Droog Design, Unilever, Philips, the Grand Palais, Paris as well as the Dutch Architecture Institute (NAI). He has exhibited worldwide in (MoMA) New York, (Grand Palais) Paris, Miami, Cologne, Milano, Turin, Eindhoven and Rotterdam. He lectures on design at the ICT & Media Design department of the Fontys University of Applied Sciences.

### MARTINO GAMPER

Martino Gamper has an abiding interest in the psychosocial aspects of furniture design: in particular, he has a love of corners and the multiple emotions provoked by the single right-angled boundary. Alongside this concern with underused spaces, Gamper also nurtures an interest in unwanted objects.

Reworking furniture that has been dumped on the streets, he has created a mismatched family of objects. Behind each of Gamper's pieces, there is a story; one that involves materials, techniques, people and places. The finished product is a token of all that, the thing that sits in the brief interlude between making and using. After an apprenticeship in cabinet-making, Gamper studied sculpture and product design at the University of Applied Art and the Academy of Fine Art in Vienna. In 1996 he moved to Milan, working as a freelancer for a number of design studios. In 1998 he moved to London to study for a masters at the RCA, graduating in 2000. After that he started his own practice where he develops and produces a wide range of objects, from limited edition to semi-industrial products and site-specific installations. His work has been exhibited in various galleries including the V&A, Design Museum, Sotheby's, Nilufar Gallery, Oxo Tower, Kulturhuset/Stockholm, MAK/Vienna and the National Gallery Oslo.

### KUENG CAPUTO

Sarah Kueng and Lovis Caputo work with an ironic and playful approach to daily life. They especially like to work with given circumstances and to analyse the facts until they can figure out a surprisingly simple outcome. For example, in the Copy By Kueng Caputo project, the starting point was a given situation – a small confined space with a large group exhibition showing a lot of very different works by their classmates. To create a dialogue between these different works, they proposed to copy the other works: visitors would walk around to look for the original to compare it with the copy. Similarly, the Salone Satellite 07 furniture fair was a giant exhibition where visitors would walk many kilometres and collect thousands of impressions. What they needed most, thought Kueng Caputo, was a calm place to relax for a moment. And this is what they provided by constructing a cardboard hotel called Five Stars Cardboard. The two young designers are based in Zurich

and have been working together since 2005.

#### JOE PIPAL

Joe Pipal is a furniture-maker from east London. His practice is based on making furniture to commission but he also devotes time to developing his own work. He has been a recipient of a development award from the Clerkenwell Green Association (now Craft Central), scholarships to craft schools in Maine and Colorado in the USA, and a 3-month residency at Cove Park in Scotland. Joe has exhibited at 100% Design, Origin craft fair, Midcentury Modern, Made in Clerkenwell and, most recently, in a solo show Pulling Out All The Stops at Craft Central, as part of London Design Week 2009. He studied cabinet-making at London Guildhall University and prior to that Fine Art at Nottingham Trent.

#### CLEMENCE SEILLES AND TRAVIS BROUSSARD

Clemence and Travis met in autumn 2008 in Vienna when they were pouring artificial wax for the 'first supper' of Jerszy Seymour. They subsequently took part in his 'salon des amateurs' and they continue to be involved in this exciting group in Berlin, where they live and work. Travis is Texan, raised in a wooded area near an old Spanish silver mine. He studied under a master metalsmith as well as at various schools in Texas and Germany and finally the Academy of Art and Design in Basel. Clemence is French and grew up in a valley with the Alps for neighbours and the woods for a playground. She studied at the school of art and design in Reims before reaching London and the Royal College of Art.

#### RYAN GANDER

Through various media such as installation, advertisement, music, performance and literature, Gander's work generates dialogue where the familiar becomes strange, and vice versa. Having completed a research residency at the Jan van Eyck Akademie in Maastricht, Gander participated in the artists' residency programme of the Rijksakademie in Amsterdam.

His first solo exhibition was held in March 2002 at the International 3 Gallery in Manchester, accompanied by a monograph entitled 'In a language you don't understand'. In 2003, Gander published the artists' book 'Appendix', produced a solo exhibition for the Stedelijk Museum Bureau Amsterdam and won the Prix de Rome for sculpture (the national Dutch art prize). Earlier this year, Gander presented his first major solo retrospective exhibition in France, 'The die is cast', at Villa Arson, Nice, which followed two solo exhibitions running concurrently at Kadist Art Foundation and gb agency. Group shows include 'Desire Acquire' at the Bob van Orsouw Gallery, Zurich, 'The Space of Words' at MUDAM Musée d'Art Moderne Grand-Duc Jean, Luxembourg, and 'Younger than Jesus' at the New Museum in New York. In 2005 Gander was shortlisted for the Becks Futures prize at the ICA in London and won the Baloise Art Statement Prize at Art Basel. In 2006 he won the ABN AMRO prize of the Netherlands and the following year received the Paul Hamlyn Award for Visual Arts. He was recently awarded the Zurich Art Prize. Gander lives and works in London and is represented by Tanya Bonakdar Gallery, New York; Annet Gelink Gallery, Amsterdam; gb Agency, Paris; Lisson Gallery, London and Taro Nasu Gallery, Tokyo.

#### BAHBAK HASHEMI-NEZHAD

Before studying product design at the Royal College of Art, London, Bahbak initiated a range of photography projects whilst studying Industrial Design at the University of Technology, Sydney. A long-term study trip to Fukuoka Japan started a string of projects that confirmed an interest in investigating the value of images and photography in product/spatial design practice. He is the recipient of numerous design and photography awards and has exhibited his work internationally. Bahbak lives and works in London.

#### IMAGE CREDITS

##### BLACK & WHITE SECTION

Graham Hudson and Phyllida Barlow instructions: photos by Sue Barr

Enzo Mari portrait: Ramak Fazel

##### COLOUR SECTION

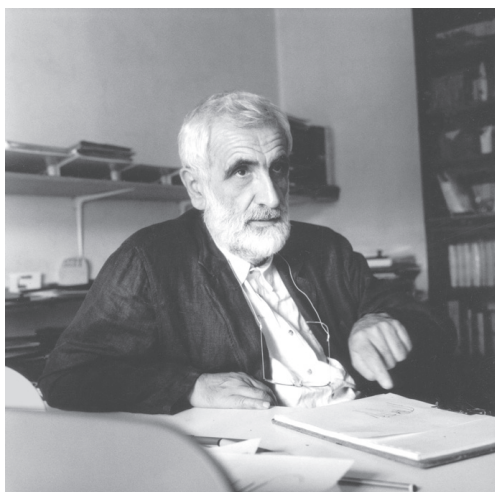
Enzo Mari portrait and exhibition opening: photos by Valerie Bennett

Pieces by Graham Hudson, Martino Gamper, Joe Pipal, Lucas Maassen, Phyllida Barlow, Broussard/Seilles, Korey Kromm, Stefan Laxness, Alma Wang; and exhibition installation views and Enzo Mari lecture: photos by Sue Barr

Pieces by Keung Caputo and Ryan Gander: photos supplied by the artists.

Auto-assemble-food photographs by Bahbak Hashemi-Nezhad & Clemence Seilles





Thanks to:

Phyllida Barlow, Sue Barr, Valerie Bennett, Valentin Bontjes van Beek, Travis Broussard, Martino Gamper, Ryan Gander, Bahbak Hashemi-Nezhad, Graham Hudson, Sarah Keung & Lovis Caputo, Korey Kromm, Stefan Laxness Lucas Maassen, Enzo Mari, Charlotte Newman, Lorenza Peragine, Joe Pipal, Stefano Rabolli Pansera, Clemence Seilles, Alma Wang; Bahbak Hashemi-Nezhad and Clemence Seilles for the private view event: Auto-assemble-food; Centro Studi e Archivio della Comunicazione, Università degli Studi di Parma; Triennale Design Museum, Milan; The Aram Store

Exhibition designed by  
AA Exhibitions with Wayne Adams  
and Nicholas Mortimer

Produced and edited by  
AA Print Studio  
Design: Wayne Daly  
Art Direction: Zak Kyes  
aaprintstudio.net

Printed by Beacon Press, England

Architectural Association  
36 Bedford Square  
London WC1B 3ES  
T +44 (0)20 7887 4000  
F +44 (0)20 7414 0782

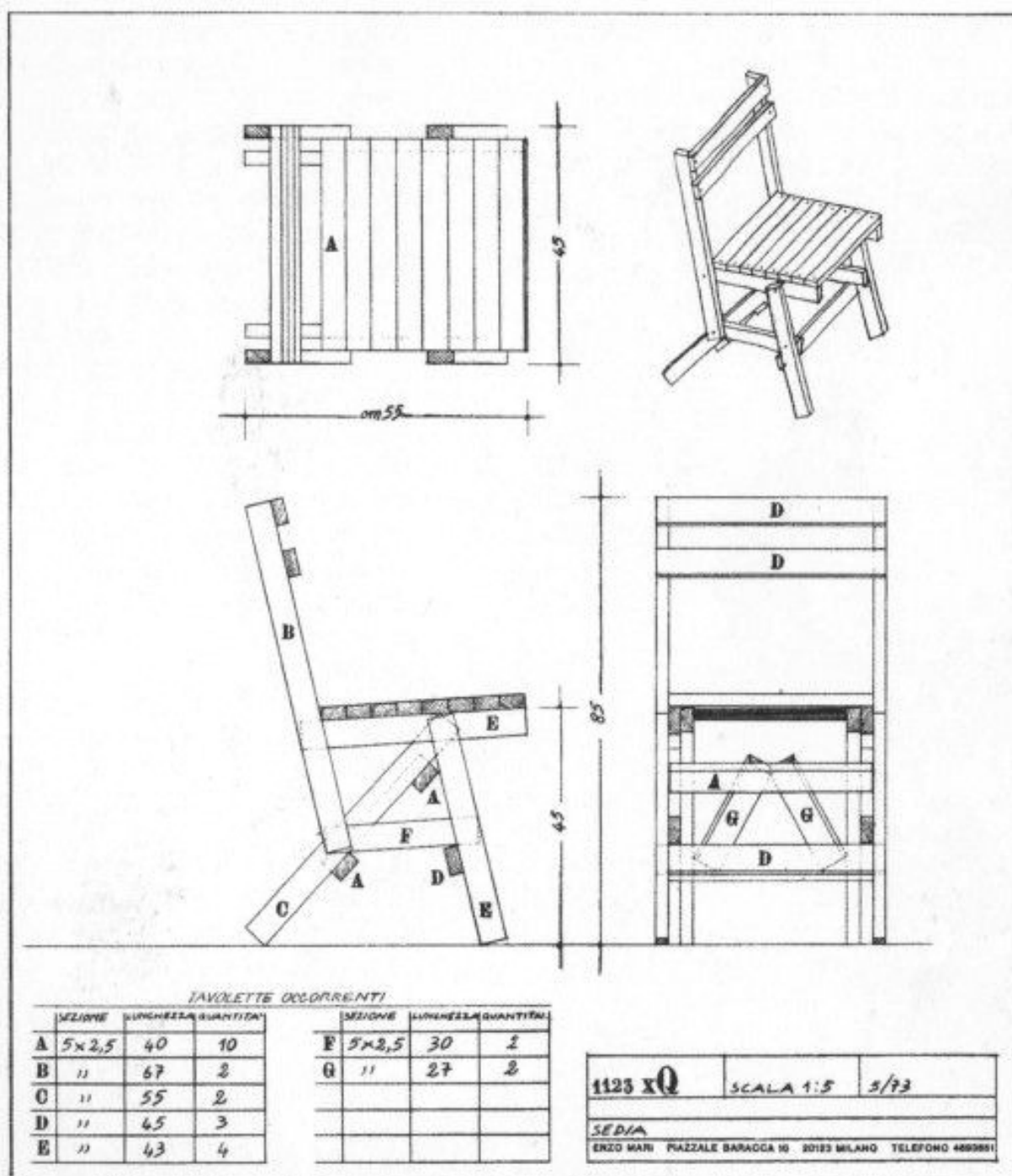
Architectural Association (Inc.)  
Registered Charity No. 311083  
Company Limited by Guarantee  
Registered in England No. 171402  
Registered Office as above

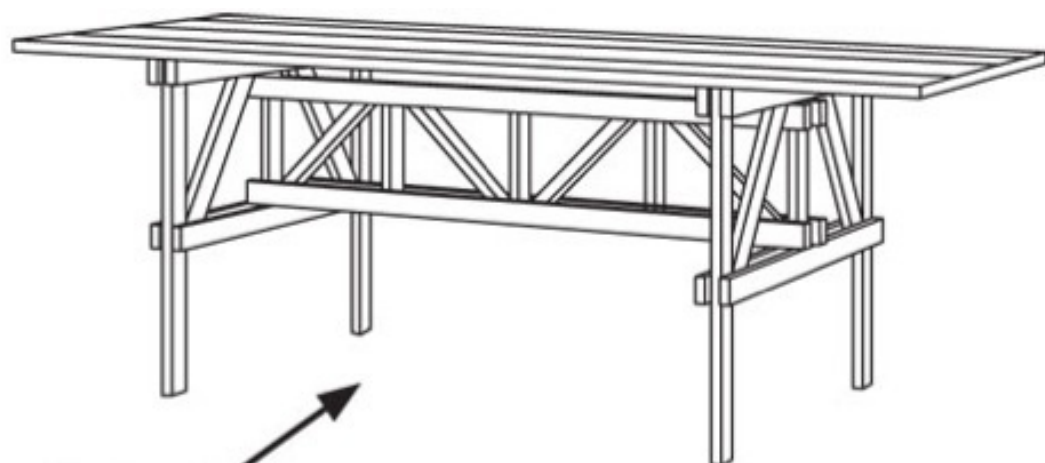
AA Exhibitions  
[aaschool.ac.uk/exhibitions](http://aaschool.ac.uk/exhibitions)

Autoprogettazione Revisited  
Easy-to-Assemble Furniture  
by Enzo Mari and Invited Guests









AA Gallery  
3 to 27 October 2009  
Monday to Friday 10am–7pm  
Saturday 10am–3pm

Autoprogettazione Revisited conceived  
by Philip Sharratt and Zak Kyes and  
curated by AA Exhibitions: Vanessa  
Norwood, Lee Regan and Luke Currall.





This table is built  
from these pieces.

|    |  |           |
|----|--|-----------|
| 4x |  | 200x5x20  |
| 4x |   | 130x2,5x5 |
| 8x |   | 80x2,5x5  |
| 4x |   | 70x2,5x5  |
| 4x |   | 43x2,5x5  |
| 4x |   | 36x2,5x5  |
| 2x |   | 39x2,5x5  |
| 3x |   | 28x2,5x5  |

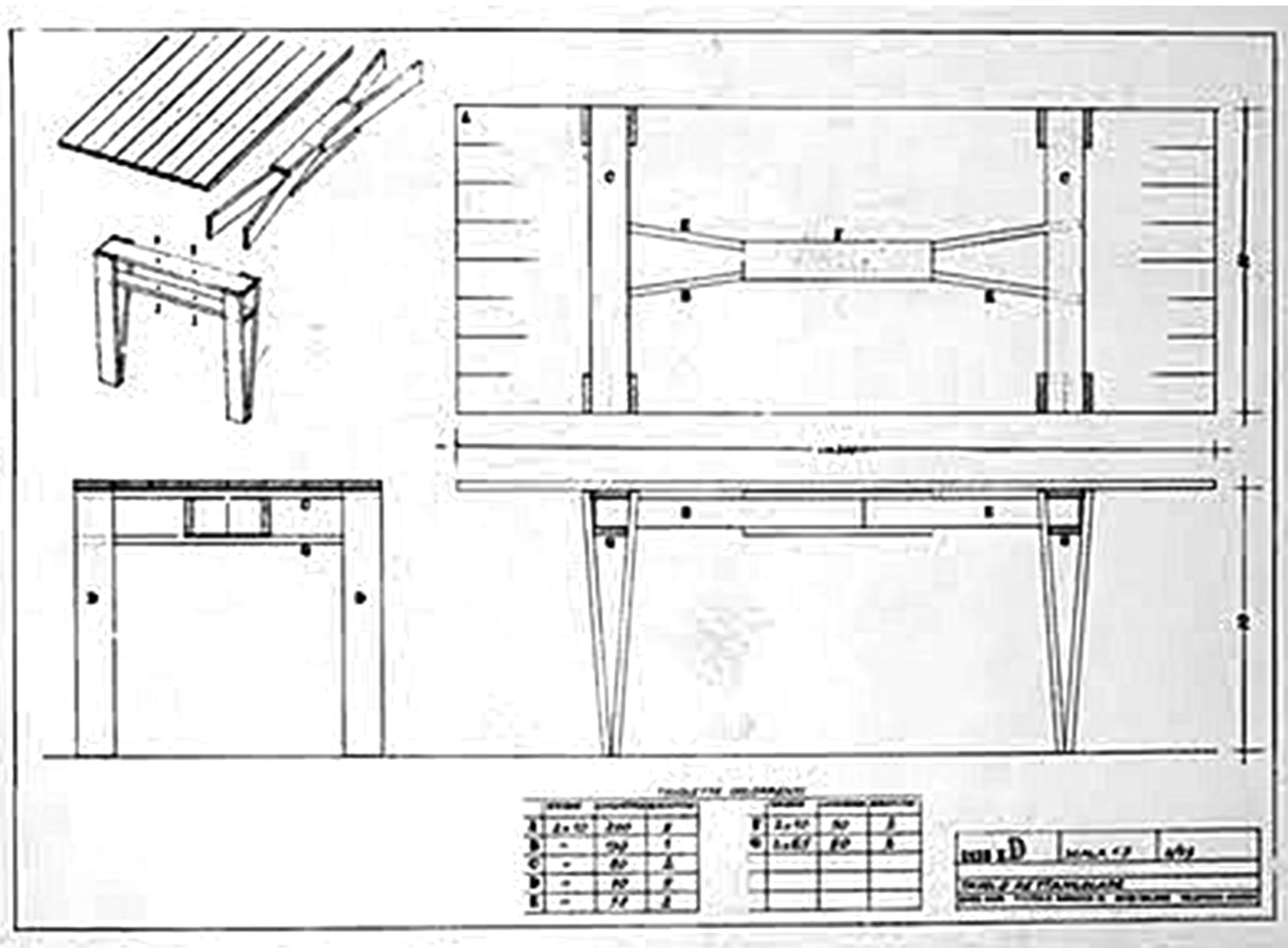




TAVOLETTE OCCORRENTI

| LETTERA | PROPORZIONE | QUANTITA' |
|---------|-------------|-----------|
| A       | 20x25       | 52        |
| B       | "           | 50        |
| C       | "           | 48        |
| D       | 5x25        | 17        |
| E       | "           | 46        |

|   |           |     |
|---|-----------|-----|
| 1123 xP   | SCALA 1:5 | N/P |
| NEVA  |           |     |
| EAD WAD PIZZALI BARACKA 10 2012 MILANO TELEFONO 02/8888 |           |     |



# Instructables Restaurant



# instructables restaurant

## Vibrobots Table

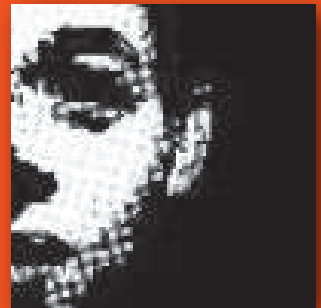
I've created a table for all the little robots featured on instructables to drive around on. It has the height of a standard coffee table and is constructed from very basic and cheap materials.

**Location:** Amsterdam, Netherlands

**Interests:** Embodiment, tangible design, freestyle (dance)

**Web Site:** <http://ron.ouweland.nl>

*By: ronouweland*



# instructables restaurant

## Tomato Pecorino Soup

There really is only one trick to making good soup: Good ingredients.

**Location:** Amsterdam, The Netherlands

**Interests:** biological food, growing my own food

**Web Site:** <http://www.hetrijkvandekeizer.nl>

*By: Nico Groot*





# instructables restaurant

## Tom Kha Gai - Thai Coconut Soup

A traditional and tasty Thai soup, this is my favorite comparison point between Thai restaurants and an excellent twist on chicken soup for cold winter days. I'm a huge fan of coconut and chicken soup, so it's a winner for me.

**Location:** Oakland, CA

**Interests:** All things brightly colored and shiny, demolition, blinky lights, dancing, costumes, and good food.

**Web Site:** <http://www.instructables.com/about>

*By: Canida*





# instructables restaurant

## Table Jacket

This table cover will transform any small table into a strong big table. The cover works as a camouflage. You can use any type of wood. For our table we have used OSB.

**Location:** Amsterdam, Netherlands

**Interests:** Carpentry

**Web Site:** -

*By: Frans\_Harms*



# instructables restaurant

## Mod A Toaster And Have Retro Art Toast For Breakfast

Yes, I've been caught by the toast modding wave and made my own. Just some Aluminum or stainless steel and a regular toaster can do the trick.

**Location:** Italy

**Interests:** Electronics, lighting, design, DIY, microcontroller, papercraft

**Web Site:** <http://www.5volt.eu>

*By: 5Volt*



# instructables restaurant

## Big Lamps From Ikea Lampan Lamps

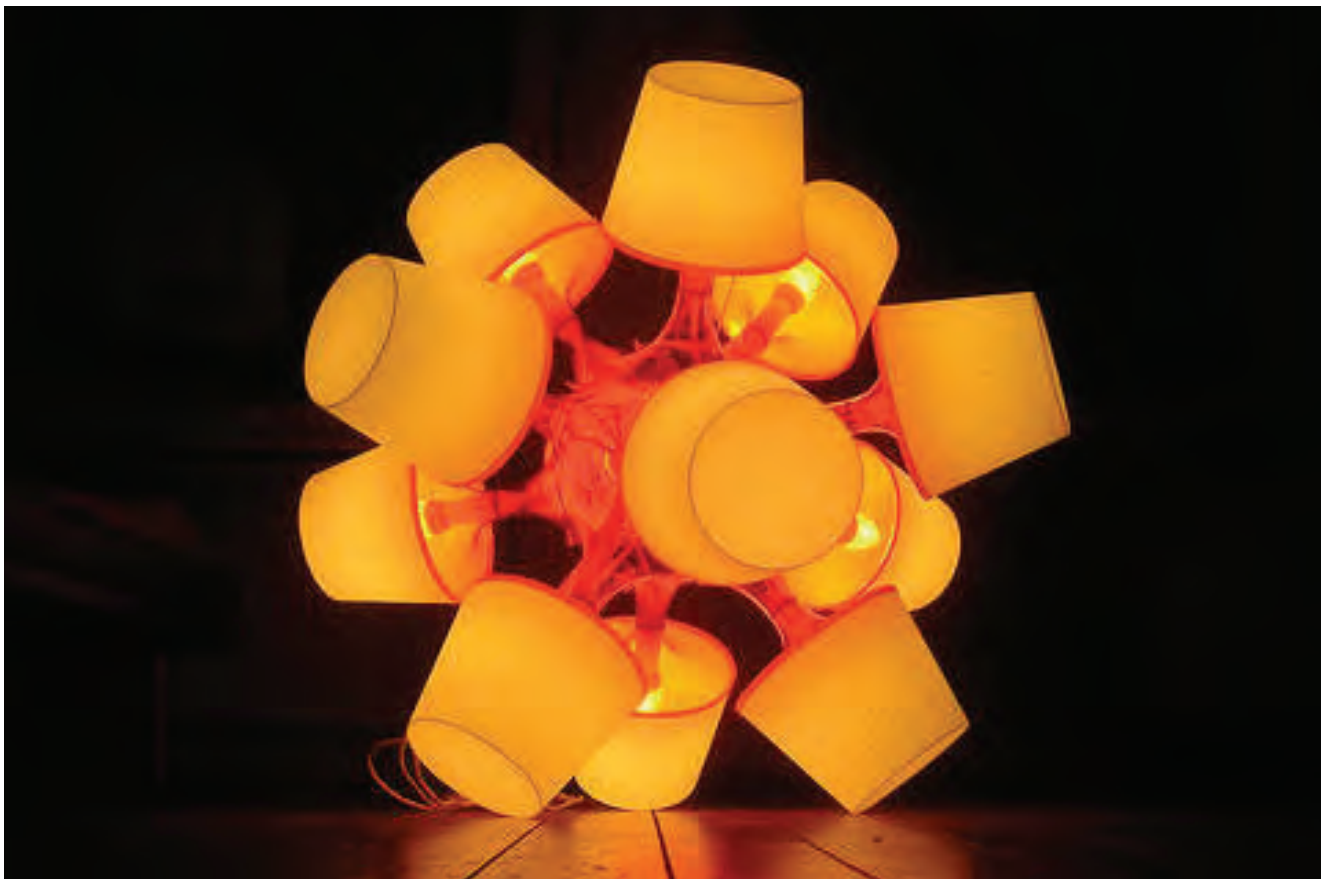
This Instructable shows you how to build large spherical lamps out of Ikea lampan lamps. With this method I have built large spheres up to 32 lamps.

**Location:** Rotterdam Netherlands

**Interests:** -

**Web Site:** <http://log.saakes.net>

*By: Daan*





# instructables restaurant

## Drunken Drawing Robot !

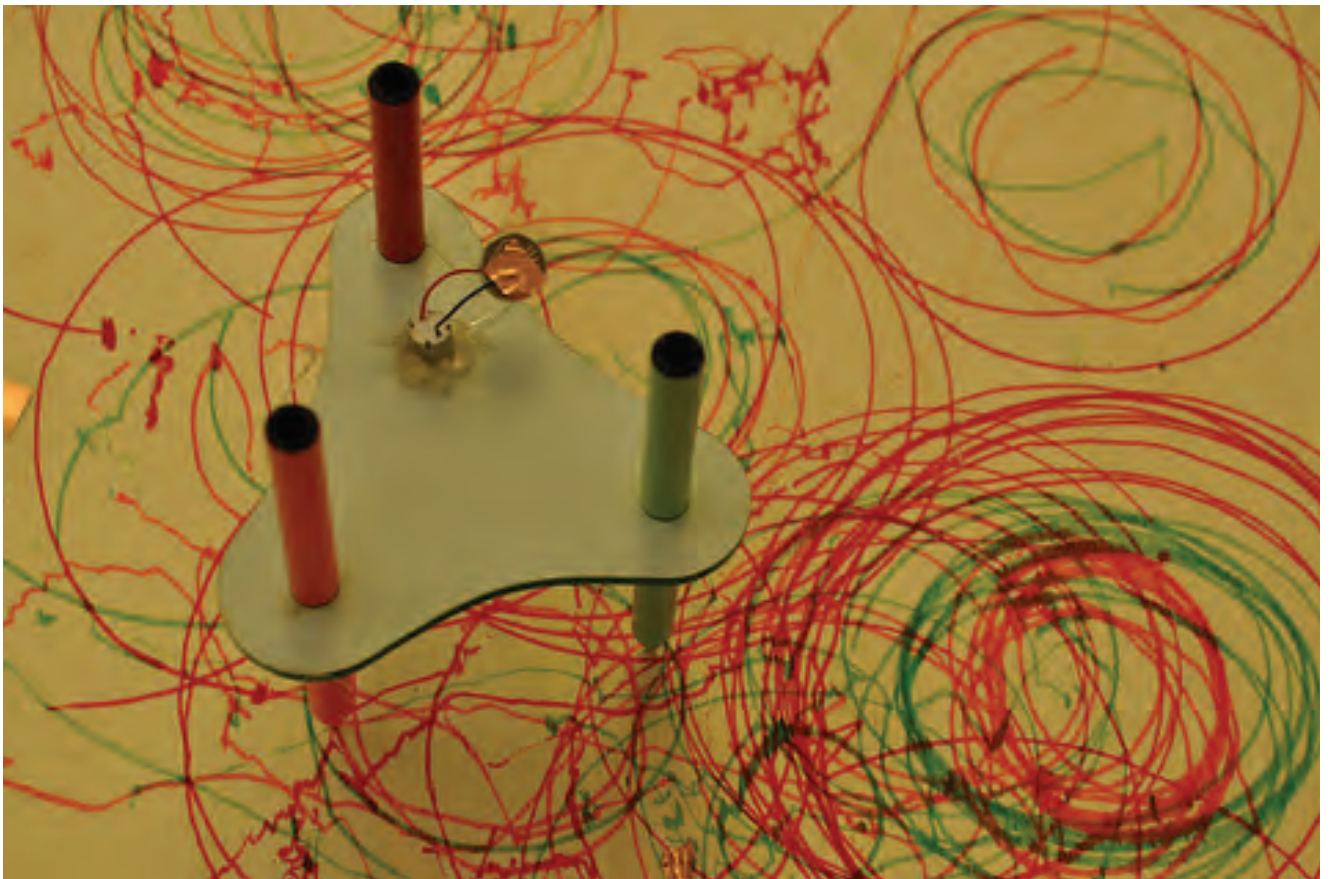
Inspired by the pocket drunken robot , I wanted to give the robot a job to do. I decided to let the drunken robot make some drawings. Let your drunken robot go nuts! make some friends for him to bump into and make even cooler drawings.

**Location:** Amsterdam, Netherlands

**Interests:** -

**Web Site:** <http://pelletron.org>

*By: Skullbee*



# instructables restaurant

## Creamy Pumpkin Soup

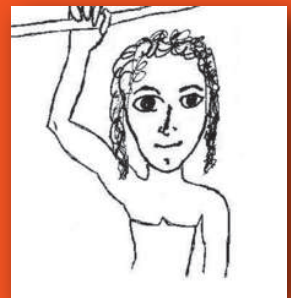
This is my twist on a popular recipe, it's great at this time of year when the days are getting colder and everyone's scooping out all that fantastic pumpkin goop to carve their pumpkins!

**Location:** Surrey, UK

**Interests:** Computers, electronics, internet, woodworking, climbing, outdoors, cooking

**Web Site:** <http://www.instructables.com/community/4-New-Pro-Features-under-development/>

*By: Jayefuu*



# instructables restaurant

## Recycled 55 Gallon Barrel Chair

Today, we are going to make a surprisingly comfortable chair using only six small bolts, nuts and washers, six drywall screws, simple hand tools, a little ingenuity and a recycled 55-gallon plastic drum.

**Location:** An ivory tower high atop Monkey Manor in Middle Tennessee.

**Interests:** Geocaching, diy, art, travel, environment, recycling, repurposing, reuse

**Web Site:** <http://www.monkeybrad.com>

*By: Monkeybrad*





# Make an Instructables Restaurant

by [arne hendriks](#) on November 30, 2009

## Table of Contents

|   |    |
|---|----|
| Make an Instructables Restaurant .....        | 1  |
| Intro: Make an Instructables Restaurant ..... | 2  |
| Step 1: Ideas behind the idea .....           | 3  |
| Step 2: Involve GREAT PEOPLE .....            | 4  |
| Step 3: How to select GREAT FOOD .....        | 5  |
| Step 4: The Dinnerparty .....                 | 5  |
| Step 5: How to create a GREAT AMBIANCE .....  | 6  |
| Step 6: Organize a Production Party .....     | 6  |
| Step 7: Graphic Design Giveaways .....        | 11 |
| Step 8: Check if you have everything. ....    | 11 |
| Step 9: Open up! .....                        | 12 |
| Related Instructables .....                   | 14 |
| Comments .....                                | 15 |



Author: arne hendriks [author's website](#)

I'm a creative producer, curator, writer and artist based in Amsterdam. I like to create spaces that invite participation on a content level. I don't know so much, please teach me.

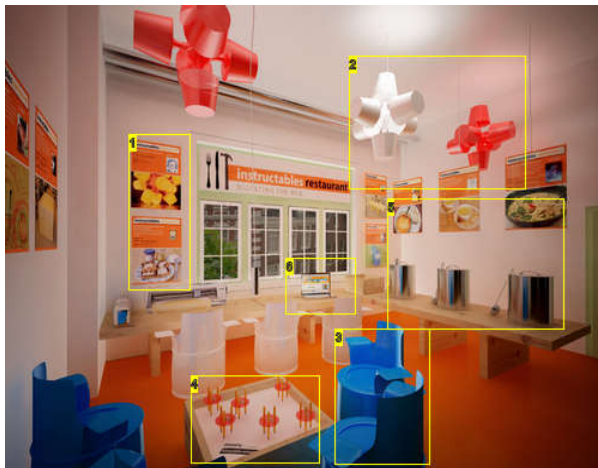
## Intro: Make an Instructables Restaurant

Turn Instructables into a restaurant. FOOD, FURNITURE, LIGHTS, DECORATION, all designed by members of Instructables. It's all there.

Why not turn all this wonderful information on Instructables into a real restaurant. There is a wide choice of food and furniture. And you can have your guests comment on it through instructables.com.

Do you want a big or small thing? A real business or just a cool dinner party? The restaurant can take all shapes and sizes because the info on Instructable.com is pretty limitless. Use it! In this ible we add some ideas for graphic design, production logistics, how to deal with food preparation and how to give everybody credit for what they bring in.

This instructable is the result of an **Instructables Restaurant pilot**, a collaboration between **Arne Hendriks** and **Bas van Abel**, **Fablab Amsterdam**, **Wag Society**, and several Instructables members.



### Image Notes

1. Posters with credits to members and the instructable they put online. It's also nice decoration of course.
2. Big Lamps from IKEA Lampan lamps by Daan. One of the IKEA Hackers/Instructables.com classics.
3. 55 gallon barrel chairs by Monkeybrad, an Instructables.com classic.
4. Drunken drawing robots by Skullbee. Light entertainment and an opportunity for guests to walk away with a cool souvenir.
5. Soups, straight from Instructables.com. Here we have Tomato Pecorino by Nico Groot. Tom Kha Gai by Canida, and Creamy Pumpkin Soup by Jayefuu.
6. Here's a computer so guests can instantly make a comment on the food, furniture and rest of the things provided, or even add tips to make things better.



<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>



### Step 1: Ideas behind the idea

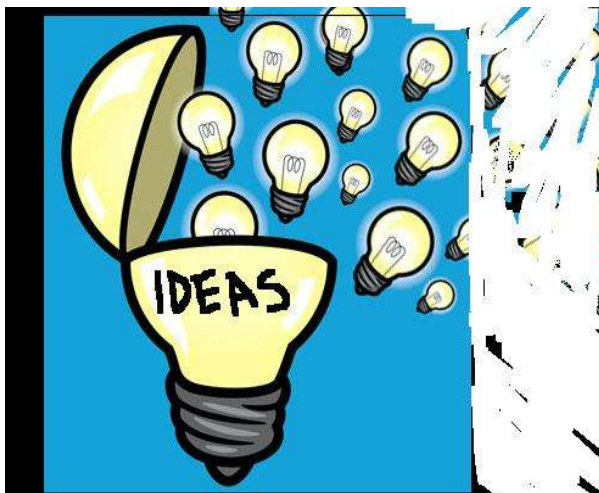
Here is some of the ideas behind the Instructables Restaurant.

1. The Instructables Restaurant comes with full instructions for everything. In most restaurants you get to buy and enjoy the food, and sometimes even the furniture. But in the Instructables Restaurant you go home knowing how to make the food as well as the furniture. We give you the instructions and recipes!
2. The Internet is full of passive information, and more is added every second. By really using and implementing this information not only do you plug into a world of know-how but it's also great for the people who have shared their knowledge. That's why crediting them is important!
3. The Instructables Restaurant originates from the input of others. This creates a different notion of ownership and the intellectual property of a regular business. A lot of the input comes from others. This is what we like about the idea.
4. The Instructables Restaurant creates a space between limitless information and reality. It's a 2.0 dock station where digital and real connect and communicate.

But enough of that. Let's build a restaurant!

<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>





## Step 2: Involve GREAT PEOPLE

How do you turn the instructions of Instructables.com into a real restaurant???

**-INVOLVE GREAT PEOPLE !!!**

Every Instructables Restaurant has a different look since it is you who decide how big it is, what recipes are served, and what furniture and lamps are used. Still it is almost unimaginable that you can do it all alone. You need to involve others, and actually that's one of the best parts of it.

You will need help in producing the furniture, selecting the food, some graphic design and interior decoration and running the restaurant and preparing the food. Working with others and sharing the responsibility and fun is what makes it special.

So before anything else, think of who could help you create this.

The beautiful bunch in the photo are the people of Waag Society and Fablab Amsterdam under the astute guidance of Bas (the stripey one on the left), who've worked hard to built the Restaurant.



### Image Notes

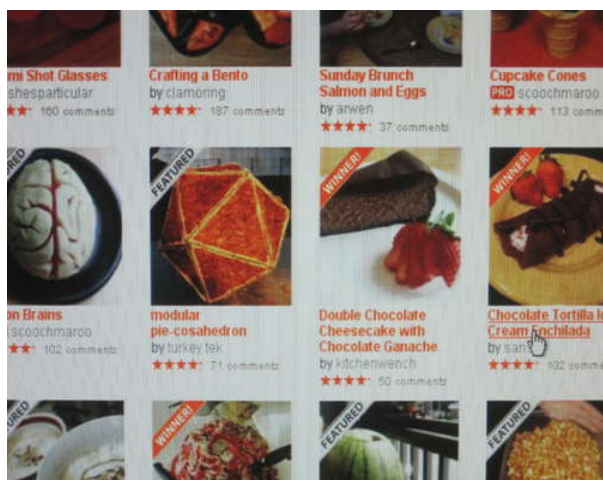
1. Production party people, absolutely not in this order: Ron van den Ouweland, Paulien Melis, Bas Withagen, Joop Harwig, Sander Bogers, Edwin van Ouwerkerk, Moria, Christine v.d. Horn, Emmeke Roemer, Henk Buurssen, Matthijs van Henten, Michael Pelletier, Ivonne Jansen-Dings, Raoul Wissink, Alex Schaub, Bas van Abel and Arne Hendriks.

<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>

### Step 3: How to select GREAT FOOD

This is where the power of the internet should be combined with the power of your cooking skills (or those of others). It's also one of the most fun parts of the whole projects since it involves picking recipes, cooking and tasting, and cooking and tasting some more.

1. If you are not a great cook yourself, try to involve someone who is and reads recipes like a musician reads music. In other words, someone who knows by reading the recipes on instructables.com if it will be any good. This saves you the trouble of a lot of cooking and tasting bad food.
2. It's probably a good idea to pick up a menu of a local restaurant you like and have a look at the diversity in meals on offer. You can copy the traditional standards with entries, main, desserts etc. or since this is already a wacky idea in the first place **DO WHATEVER YOU WANT**, and serve only dishes with the word atomic in them, or ice cream, or things from Ohio. The pizza in the sky is the limit.
3. Decide on a budget per dish served. This will also narrow down the choice. You may need to shop around for good deals on ingredients. You could do a special.
4. Have someone who knows how to cook prepare the dish. If it needs slight alterations that is fine BUT don't forget to put this as feedback on Instructables so everybody can benefit from it! This is one of the most promising aspects of this concept: we might actually make things better one step at a time.
5. When you're done cooking have your neighbours try it, then your friends, and if you're feeling confident, your mother-in-law. (We suggest to do it in that order unless you want to get in trouble).
6. If most people like it, or at least think it's fun, **CONGRATULATIONS!** You found yourself a dish worth serving. Time for a more serious dinnerparty!



### Step 4: The Dinnerparty

Organize a dinnerparty for the number of people that reflect your ambition. If you go for a big restaurant invite at least 15.

1. The dinnerparty is to try out the food and practise in getting it organized BUT it is also the first chance you get to share the idea with your friends and relations. Take this opportunity and present not only the food (we get around to that later) but also the ambiance (Step 5) you want to achieve with the restaurant.
2. The food. There is only one important rule: Make the dishes represent what your restaurant is about. And there is only one important rule apart from the first one but that one is too obvious and has something to do with taste.
3. Provide a computer at the diner party to introduce your guests to instructables.com and the way they can use the website to give feedback on the instructables that have been posted by members.
4. Ask for honest criticism. It would be great if your guests are willing to go on Instructables.com and share tips for improving your chosen recipes (of course you're still free to ignore them).
5. Then when everybody is excited about it, introduce the idea of a production party and invite your guests to participate.

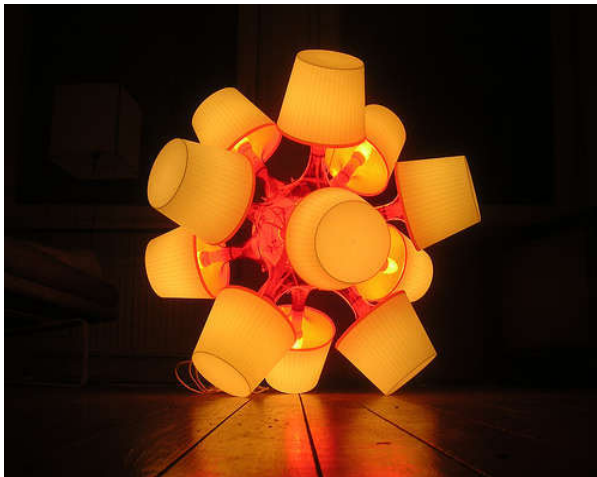
<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>



### Step 5: How to create a GREAT AMBIANCE

You could go in any direction with this but as this is an Instructables Restaurant we suggest the graphic design of the website as an inspiration for the ambiance of the restaurant.

1. It wouldn't really be an Instructables Restaurant if it didn't have some designs from the Instructables Hall of Fame like the Platonic Suns lamp by Daan and the 55 Gallon Barrel Chair by Monkeybrad. We suggest you combine personal favorites with more recognizable designs.
2. Graphic Design. Go to step 7 to find some of the graphic designs we use in the restaurant. It is a basic lay-out done by Dearboss. It is designed for crediting the original Instructables.com members for their instructables. It also includes a printable graphic design for the ibles you used so guests can bring those home and re-create what they ate and what they sat on..
3. Decide on the nature of the restaurant. How many tables? Self service or lots of waiters. Forever or as a one-off thing. Is it a fun twist to a catering or dinnerparty, or a serious business opportunity? This will effect how much you can and should do. It is my experience that you should focus on two or three eye catchers and not more.
4. Decide on a budget for materials and shop around for the ingredients.
5. If you are not a handyman/woman, and even if you are, get others involved. See step 6 for how to create a production party everybody will want to be invited to.



### Step 6: Organize a Production Party

Producing all the ingredients for the restaurant together with your family and friends is one of the most fun parts of it all, especially if you organize the production party well. Get this right and you are well on your way to opening an Instructables Restaurant

1. Make sure you have all the ingredients and tools you need to produce the items you selected available. It's better if everybody can really get to work and not have to wait if the only hammer is available.
2. Have enough space for working comfortably. And think about safety.
3. Organize groups for each item that needs to be made. Think about personality and personal qualities of the people involved. Practically it comes down to the people who like to do precise stuff for electronics and measurements, people who like to work hard and fast for sawing screwing and hammering? And don't forget to invite one or two people who like to clean and take care of everything else (calling for pizza, putting beers in the fridge) so the rest can do their job.
4. It could be a good idea to get one of each item done (chairs, tables, lights) before so you have a sense of the difficulties and timing involved. People will look at you for clear instructions.

<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>



5. It is a party so drinks and food are a must. If possible some of the snacks should feature on the menu of your future restaurant as well.
6. Good music, maybe Kraftwerk or Bauhaus.



<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>



<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>



<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>





<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>

## Step 7: Graphic Design Giveaways

The graphic design is mostly about giving credit to the people who deserve it.

Working in graphic programs like Indesign is not always very easy so we give you a suggestion and the files for the graphic design.

You can download our PDF files of the posters and instructions.

Please contact us if you want the high resolution stuff.

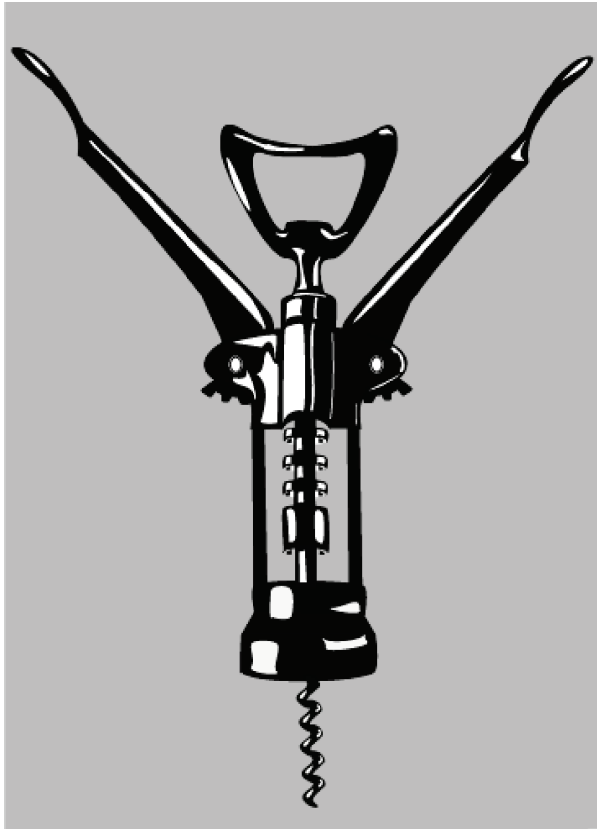


## Step 8: Check if you have everything.

Did you get the bottle opener?

There are many things. I will continue working on this instructable as I get more experiences from the practise and make a list of the things I ran across. Or maybe you have a suggestion?

<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>



**Step 9: Open up!**

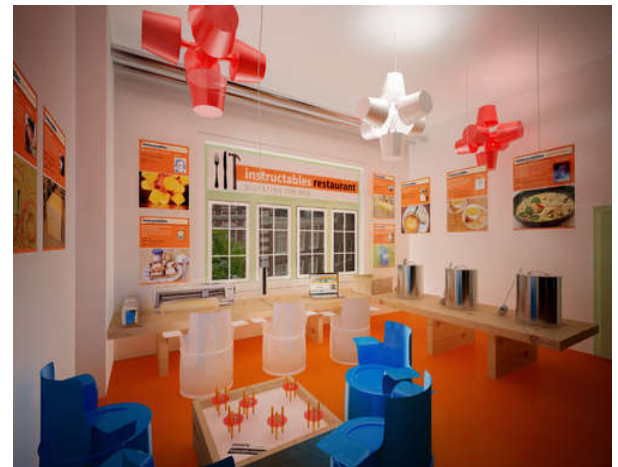
Open up!

<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>





<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>



## Related Instructables



**Instructables Restaurant Handouts**  
(Photos) by ewilhelm



**Backpacking Food Packets** by 3leftturns



**How to be gluten and soy free the happy and healthy way** by lynamemi



**How to make the perfect steak** (video) by ifoods



**The Camping/Restaurant Spice Kit** by drmj55



**How to Make Authentic Thai Hot Sauce!** [Restaurant Recipe] by zedomax

<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>

## Comments

50 comments [Add Comment](#)

[view all 65 comments](#)



**gamegenie2k** says:

This is unbelievably awesome. If there were an Instructables resteraunt near here? They'd probably end up with most of my money....

Apr 15, 2011. 6:30 PM [REPLY](#)



**kcls** says:

This is like my dream... You, my friend, are awesome

Dec 18, 2009. 11:21 AM [REPLY](#)



**king kolton9** says:

You're saling across the world? Nice!!!

Nov 21, 2010. 3:50 PM [REPLY](#)



**arne hendriks** says:

When you're done sailing across the world come visit!

Dec 20, 2009. 12:41 PM [REPLY](#)



**coppeis** says:

How do you download the pdf?

Oct 20, 2010. 7:48 PM [REPLY](#)



**watermelonhead** says:

You're Awesome!!

Feb 26, 2010. 7:21 PM [REPLY](#)



**Monkeybrad** says:

Thank you for including the barrel chairs, I am looking into travel options to come visit.

Jan 5, 2010. 1:15 PM [REPLY](#)



**arne hendriks** says:

Hey great to hear from you!! Let us know and you get a royal welcome.

Jan 5, 2010. 3:26 PM [REPLY](#)



**Geli12** says:

Where is this Restaurant?

Dec 30, 2009. 10:52 AM [REPLY](#)



**Fred82664** says:

WOW !!!! that would be a cool place to stop in and check out! If I ever was in town it would be in the top 5 on my top 10 places to see and eat if I was hungry when there. Do you serve Coffee? I could always use a cup of good Coffee

Dec 29, 2009. 10:48 PM [REPLY](#)



**j\_l\_larson** says:

What? No butter pens for the toast?

Dec 29, 2009. 7:11 PM [REPLY](#)



**led235** says:

Does it have a jaw replacement machine, because when i visit, i will need one !

Dec 29, 2009. 7:24 AM [REPLY](#)



**mettaurlover** says:

I'd do this if my peeps would let me. Unfortunately they won't.

Dec 28, 2009. 11:26 AM [REPLY](#)



**Meggeler** says:

WOW - ya' all got free wifi too?

Dec 27, 2009. 2:03 PM [REPLY](#)



**bas\_van\_abel** says:

Sure thing. Visitors need to be able to comment on the food at instructables.com. That's why we've put computers there as well.

Dec 27, 2009. 10:51 PM [REPLY](#)

<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>





**codwithchips** says:  
*this is just amazingly awsm,  
congrats on planning & design/construction.  
So Well Done*

Dec 27, 2009. 9:19 AM [REPLY](#)



**poppecast** says:  
If your were [at] Waag Society 15 anniversary party last wednesday evening you cannot have missed the flow jamming in this 400 years old building.  
  
Sorry party-people!  
Sorry amsterdam klezmer band  
  
...I didn't RDFM: I've used foil for toasting the bread with nice figures .

Dec 23, 2009. 2:07 AM [REPLY](#)



**Cpt. Caleb** says:  
holy crap! It's like christmas come early!

Dec 22, 2009. 10:13 AM [REPLY](#)



**timweaver17** says:  
is this a real restaurant that people can come visit? if so, where?

Dec 20, 2009. 9:01 AM [REPLY](#)



**Doctor What** says:  
I saw the group and forum topic (s) a while back, and to be honest, I didn't think you'd follow through (just another fun idea), but this party is fantastic!  
  
I'll have to have my own!

Dec 16, 2009. 9:37 PM [REPLY](#)



**Zaphod Beeblebrox** says:  
seconded!

Dec 18, 2009. 4:44 PM [REPLY](#)



**scoochmaroo** says:  
Amazing!!!!

Dec 16, 2009. 9:49 AM [REPLY](#)



**arne hendriks** says:  
I can't believe that guide to Kiteman. It blows me away.

Dec 18, 2009. 11:26 AM [REPLY](#)



**arne hendriks** says:  
We're eyeing your truffles for the next time.

Dec 16, 2009. 11:47 PM [REPLY](#)



**scoochmaroo** says:  
Neat! The four-minute mousse is a crowd pleaser too!

Dec 18, 2009. 1:01 PM [REPLY](#)



**ewilhelm** says:  
Besides the three soups I see in the intro image, what else is on the menu?

Dec 16, 2009. 10:28 AM [REPLY](#)



**arne hendriks** says:  
And then the next goal is to serve you Canida's venison dish here in Amsterdam some day.

Dec 18, 2009. 11:26 AM [REPLY](#)



**arne hendriks** says:  
Until now we have the soup and the toast. We've had some chefs read through the recipes and pick several good ones. As we are not experienced restauranters ourselves we want to develop it slowly, have a few pilot events, and see where it goes. Next thing might be a cheese cake bar connected to a competition like you organize on the website. We'll provide all the cheesecakes on the web, each single one, and let the guests decide which ones they like most.

Dec 16, 2009. 5:17 PM [REPLY](#)



**scoochmaroo** says:  
Yes. Cheesecake Contest!

Dec 18, 2009. 1:02 PM [REPLY](#)



**Jayefuu** says:

Do it! I have a ginger and white chocolate one to enter :D Been meaning to iblise it for a while :D

Dec 17, 2009. 1:15 AM [REPLY](#)



**Kiteman** says:

Wa-hey, great work!

Dec 18, 2009. 10:41 AM [REPLY](#)

I guess you are working up to a full-blown actual restaurant?

(Oh, please let the answer be "yes"!)



**arne hendriks** says:

And did I just see there is an instructable on you?

That is a really interesting idea when connected to the notion of a speed dating café.

Dec 18, 2009. 11:07 AM [REPLY](#)



**arne hendriks** says:

Yes Kiteman, we are BUT it is also really meant as an instructable so I hope lots of people will adopt the idea and open Instructable Restaurants of their own.

Dec 18, 2009. 11:04 AM [REPLY](#)

ps I still would like to incorporate some of the cool ideas you posted one year ago!



**Kiteman** says:

That answer is so Instructables!

Dec 18, 2009. 11:07 AM [REPLY](#)

Excellent idea (to just let others copy you), but (speaking commercially), you may want to require that users of your ibles credit your ideas.



**arne hendriks** says:

Yes the credit thing. To be honest this idea never crystalized in isolation anyway. I'm heavily indebted to Catalan designer Marti Guixé [www.guixe.com](http://www.guixe.com) (I worked with him on a concept restaurant Food Facility at Mediamatic in Amsterdam) and the whole instructables Restaurant only became more than an idea when Bas van Abel of Waag Society picked it up and said let's do it. He is now totally a co-author on this, and I hope we can find many more who are willing to co-write scripts for funky Instructables restaurants. The first experience was soooo worth the trouble.

Dec 18, 2009. 11:23 AM [REPLY](#)

(I'm now thinking of a Kiteman/Instructables Speed Dating Hub. Hmmm what would that look like?)



**bas\_van\_abel** says:

Actually... Arne and I are already working on an Instructables Bar as well. It is amazing when you look at the speed you can make stuff when you have good instructions ;-) I love the open approach! The team is already heating up for the next production party, for which anyone is invited to come to Amsterdam .

Dec 18, 2009. 12:38 PM [REPLY](#)



**Kiteman** says:

(Speed dating? When did I suggest speed dating...?)

Dec 18, 2009. 11:33 AM [REPLY](#)



**arne hendriks** says:

No no not like that. I mean since you have an ible about yourself on instructables. This creates an interesting structure for a new approach to speed dating. I mean if you take the logic of personal guides to the extreme. Maybe you missed my reply about 20 minutes ago.

Dec 18, 2009. 11:42 AM [REPLY](#)



**Jayefuu** says:

Super! Thanks for including my soup :D That was a nice surprise for when I woke up this morning :D What a fantastic idea!

Dec 17, 2009. 1:13 AM [REPLY](#)

Next time try my green thai curry please? I really need better pictures but aren't a good enough photographer to do the dish justice. :)

<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>



**arne hendriks** says:

How do I set up a forum for all the recipe ideas? Also in the next graphic design and posters for authors I'd like to include the patches. They're great.

Dec 17, 2009. 11:56 PM [REPLY](#)



**Jayefuu** says:

Ummm. You could start a discussion topic in the group that you started :D

Dec 18, 2009. 12:45 AM [REPLY](#)



**starburst552** says:

on the drukne robot drawings, i think skullbee woule like his name changed to SKU LLBEE not SKI LLBEE. just noticed.

Dec 17, 2009. 5:13 PM [REPLY](#)



**arne hendriks** says:

Changed! thx

Dec 17, 2009. 11:21 PM [REPLY](#)



**RedneckEngineer** says:

Really cool!!! You could put a big flat screen on the wall and show some of the videos that go with alot of the ibles. That way people could watch things being made as they eat. PVC and k'nex bathroom fixtures would top this off LOL!

Dec 17, 2009. 5:19 PM [REPLY](#)



**DainiusGB** says:

this is an amazing idea!

Real innovation!

Dec 17, 2009. 11:18 AM [REPLY](#)



**kizel** says:

Great Idea -- I loved the prototype at Waag! Great Work.

Dec 17, 2009. 4:22 AM [REPLY](#)



**arne hendriks** says:

Were you there?

Dec 17, 2009. 10:27 AM [REPLY](#)



**kizel** says:

Yeah, last night. I don't think we met.

Dec 17, 2009. 11:14 AM [REPLY](#)



**Spint180** says:

You sir have just won the internet.

Dec 17, 2009. 1:01 AM [REPLY](#)



**Creativeman** says:

Great idea! Every restuarant needs flowers, greenery. (Handmade, recycled paper). Cman

Dec 16, 2009. 3:45 PM [REPLY](#)



[view all 65 comments](#)

<http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/>





**waag society**

**institute for art, science and technology**

[about us](#) | [contact](#) | [products](#) | [services](#) | [academy](#) | [lees in het Nederlands](#)

Search the site

[research](#) [news](#) [blog](#) [events](#) [projects](#)

[Newsletter](#) [RSS](#)

## Project

**projects**   [Instructables Restaurant](#)

### Instructables Restaurant



[Waag Society 2010](#)

The Instructables Restaurant is the first restaurant in the world where everything you see, use and eat is downloaded from instructables.com. It is an experiment in "digesting free internet culture", after an idea of Bas van Abel and Arne Hendriks.

[Instructables.com](#)

Instructables is a web-based documentation platform where passionate people share what they do and how they do it, and learn from and collaborate with others. The seeds of Instructables germinated at the MIT Media Lab as the future founders of Squid Labs built places to share their projects and help others. Eric J. Wilhelm, CEO of Instructables, "loves building kite-powered contraptions, cooking breakfast, and demystifying technology so that even his Grandmother can use it." Instructables supports the use of Creative Commons Licenses for uploaded instructables.

[Instructables Restaurant](#)

Everything in the restaurant is downloaded from the Instructables website, and what could not found there, was added to its contents. One could download it or take the instructions with you from the restaurant during your visit.

The first Instructables Restaurant was created at the historic Theatrum Anatomicum of the Waag in Amsterdam on December 16th, 2009, on the occasion of the 15th anniversary of Waag Society, in cooperation with the cooks Pepi Mensink, Nico Groot en Alex Schaub. The initiative was repeated at a number of locations afterwards.

Publications:

- [Instructables Restaurant banners \(pdf\)](#)

Links:

[MIT FabLab](#)

[Fablab Amsterdam](#)

[Squid Labs](#)

Duration of the project:

15-12-2009 to 31-12-2010

Lab:

[Open Design Lab](#)

Projectsite:

<http://instructablesrestaurant.com/>

Partners:

[Arne Hendriks](#)

[Instructables.com](#)

[tweet](#) [share](#) [+1](#)

## Team



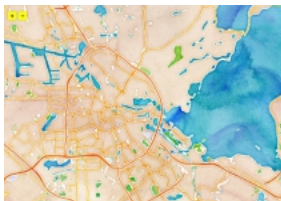
## Other current projects

### Amsterdam Smart Citizens

#### Lab



#### Maptime AMS



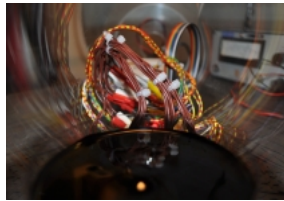
#### Trust me, I'm an artist



#### Teacher Maker Camp



#### Do It Together Bio



#### Hack the Brain 2016



[More](#)

## instructables restaurant

### Big lamps from Ikea lampan lamps

Build large spherical lamps out of Ikea lampan lamps ( \$4.99 each ). The lamps are based on platonic solids.

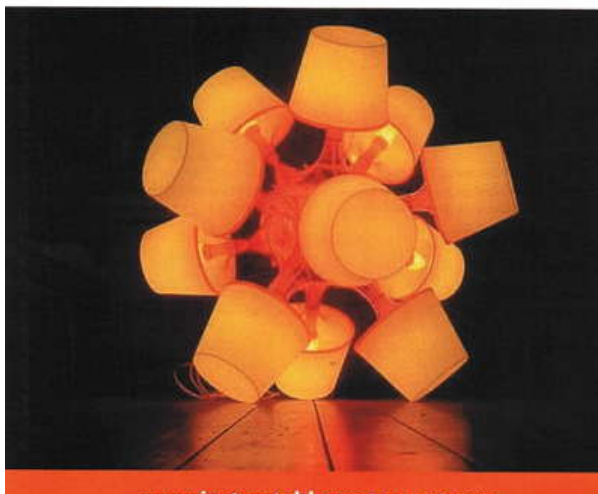
By: Daan



**Location:** Rotterdam Netherlands

**Interests:** Technology

**Views** : 139,642



[www.instructables.com/restaurant/](http://www.instructables.com/restaurant/)

## instructables restaurant



Step 1: You need a couple of tools, a soldering iron, tie-wraps, tools to strip the wires and connect them. You can use a clothes hanger to mount the lamp.



Step 2: In this Instructable I show how to build a cube with six lamps. Unpack the lamps, and cut the wires between the switches and the lamps.



Step 3: Download the building template from the website. Mark the holes with a pen and burn holes with a soldering iron. The tie-wraps should go easily through the holes.



Step 4: Strip the cables. For connecting the wires I use piggy-backs. 3 wires go together in 1 piggy-back.



Step 5: Connect the lamps together with tie-wraps. Make sure that they can be fastened from the outside. Don't forget to insert a hanger to mount the lamp on the ceiling.



Step 6: Done! The dodecahedron (with 12) is the nicest one and quite straightforward to build, but the icosahedron with 32 lamps is a challenge...

[www.instructables.com/restaurant/](http://www.instructables.com/restaurant/)





Author: [ericwilhelm](#) [author's website](#)

Eric J. Wilhelm is the founder of Instructables. He has a Ph.D. from MIT in Mechanical Engineering. Eric believes in making technology accessible through understanding, and strives to inspire others to learn as much as they can and share it with those around them. Read about Instructables' history: [http://www.instructables.com/id/How\\_to\\_Start\\_a\\_Business\\_1/](http://www.instructables.com/id/How_to_Start_a_Business_1/) and meet the others on the Instructables team [<http://www.instructables.com/about/>].

In addition to his doctorate, Eric earned his SB, and SM degrees in mechanical engineering from MIT, where he developed methods to print electronics and micro-electromechanical systems using nanoparticles. He co-founded Squid Labs <http://www.squid-labs.com>, an innovation and design partnership, and a number of Squid Labs spin-off companies including Potenco <http://www.potenco.com>, producing a human-powered generator for cell phones and laptops; Makani <http://www.makanipower.com>, an energy company seeking to harness high-altitude wind; and Optiopia <http://www.optiopia.com>, developing low-cost portable vision-testing and lens-fabricating devices.

Eric has been recognized as one of the top innovators under 35 years old by Technology Review: [http://www.instructables.com/community/Eric\\_wins\\_TR35\\_Innovation\\_Award/](http://www.instructables.com/community/Eric_wins_TR35_Innovation_Award/), and was awarded the National Inventors Hall of Fame Collegiate Inventors Award for the development of a printing technique used to create patterns in films of nanoparticles or polymers with resolutions reaching into the 10's of nanometers.

Contact him at his Instructables profile by clicking the "Private Message Me" button, or by guessing his email address [@instructables.com](mailto:@instructables.com) (it's easy).

You can also follow his work here by clicking the "subscribe" button, or on Twitter <http://twitter.com/ericwilhelm> or Facebook <http://www.facebook.com/ericwilhelm>

### Intro: Instructables Restaurant Handouts

The instructions for everything found in an [Instructables Restaurant](#) can be found on Instructables itself -- the food, the furniture, the lighting, everything! To make this connection clear and understandable, and to give credit to the authors of any projects used in the restaurant, [Arne Hendricks](#) and [Bas van Abel](#) made these handouts for the Instructables Restaurant that was part of [PICNIC 2010](#). Each handout gives an overview of the Instructable's steps and a snapshot of information about the author.

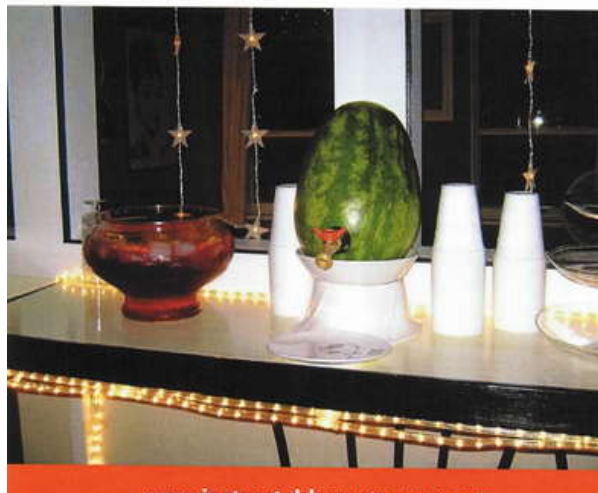
Read more about this [Instructables restaurant here](#).

## instructables restaurant

**Tap a Watermelon!**  
Wow your guests and enjoy a delicious drink in style!

**Location:** Ottawa, ON  
**Interests:** Costumes, crafts and general craziness  
**Views** : 93,313

By: [ModMischief](#)



## instructables restaurant

**Step 1: Ingredients Hardwarestore:**  
Hose Bibb, Quarter Turn (that's the tap), Faucet Lock Nuts, Brass Pipe Nipple 1/2", Coupling 1/2" (what looks like a hex nut).

**Step 2: Ingredients grocery store:** Watermelon, Saran wrap (or similar cling wrap). From your kitchen: paring knife, spoon, bowl, blender, vodka or your poison of choice.

**Step 3:** Cut the top off your melon. Try to keep the hole fairly small, but make sure it's big enough to stick your hand in. Scoop out all of the delicious insides and set them aside.

**Step 4:** Make a hole near the bottom of your melon. Screw your nipple into the coupling. Push the coupling through the melon. Screw on the tap.

**Step 5:** Throw the watermelon guts into a blender and turn it into juice. Pour the juice through a strainer to get the worst of the pulpy bits out. Add a generous helping of vodka and stir.

**Step 6:** Relax and enjoy a cool drink.

<http://www.instructables.com/id/Instructables-Restaurant-Handouts/>

## instructables restaurant

### Big lamps from Ikea lampan lamps

Build large spherical lamps out of Ikea lampan lamps ( \$4.99 each ). The lamps are based on platonic solids.

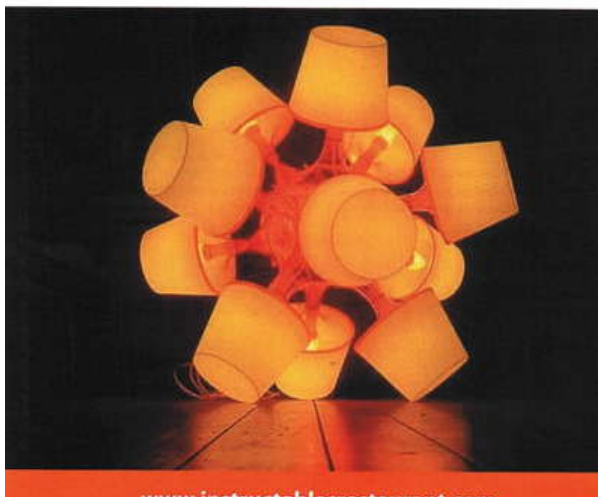
By: Daan



**Location:** Rotterdam Netherlands

**Interests:** Technology

**Views** : 139,642



[www.instructables.com/restaurant/](http://www.instructables.com/restaurant/)

## instructables restaurant



Step 1: You need a couple of tools, a soldering iron, tie-wraps, tools to strip the wires and connect them. You can use a clothes hanger to mount the lamp.



Step 2: In this Instructable I show how to build a cube with six lamps. Unpack the lamps, and cut the wires between the switches and the lamps.



Step 3: Download the building template from the website. Mark the holes with a pen and burn holes with a soldering iron. The tie-wraps should go easily through the holes.



Step 4: Strip the cables. For connecting the wires I use piggy-backs. 3 wires go together in 1 piggy-back.



Step 5: Connect the lamps together with tie-wraps. Make sure that they can be fastened from the outside. Don't forget to insert a hanger to mount the lamp on the ceiling.



Step 6: Done! The dodecahedron (with 12) is the nicest one and quite straightforward to build, but the icosahedron with 32 lamps is a challenge...

[www.instructables.com/restaurant/](http://www.instructables.com/restaurant/)

## instructables restaurant

### Cute Little Crate Stool

I like easy and quick materials like styrofoam & tape. This stool is great if you have a party and don't know where to put the soda and beer.

By: Missy Makela



**Location:** Brooklyn, NYC

**Interests:** Basketball, Music, Black music, DIY

**Views** : 438



## instructables restaurant

### Make a Lego table out of PVC pipe

We looked all over the place for a Lego table. We finally gave up and decided to make our own.

By: casey868



**Location:** Unknown

**Interests:** Lego

**Views** : 19,027





## instructables restaurant



Step 1: Tools & Materials: saw, hammer, drill, screw driver. For this project we used 1 1/2 inch diameter PVC pipe, wood, corner pieces, T's PVC glue, contact cement, finishing nails, paint.



Step 3: Attach the bottom to the top piece. Drill 4 holes on each side and 2 on each end. Make a large 1/2" hole on the underside of the pipe and a small hole on the inside of the pipe and board.



Step 5: We put trim on the edges and cut two small pieces to frame in the Lego sorting area before painting. The Legos had to be hollowed out in the middle before gluing.



Step 2: Cut the pieces to length and assemble bottom frame. Get a game plan when gluing because it dries almost instantly.



Step 4: Use 1 1/2" bolts and nuts and attach top to frame. Add the trim before attaching it to the frame. We used Legos to hide the screw heads.



Step 6: Lego.

[www.instructables.com](http://www.instructables.com)

## instructables restaurant

### Recycled 55 Gallon Barrel Chair

I have a small business where we use a lot of all-natural vanilla extract. It comes to us shipped in food grade 55-gallon plastic drums.

By: Monkeybrad



**Location:** Monkey Manor in Middle Tennessee

**Interests:** Geocaching, diy, art, environment, recycling, repurposing, reuse, travel.

**Views** : 54,595



## instructables restaurant



Step 1: Materials: 55 Gallon Barrel, 1" Machine Screws, 1" Drywall Screws, Jigsaw, Drill, Heat Gun, Welding Gloves, C-Clamps, Ruler, Screwdriver, Vacuum Cleaner.



Step 2: The entire success of this project hangs on getting your cuts right, so take your time and do the old "measure twice, cut once" thing.



Step 3: A careful study of Monty Python reveals that all "comfy" chairs have one thing in common, arms. So let's get to arming our supporters.



Step 4: By now you have been working on the top half of the chair long enough to be bored so this is an excellent time to refocus your attention by working on the base.



Step 5: This is it, what we have been waiting for, at this point we actually make this chair usable by making it truly comfortable, we are about to add lumbar support.



Step 6: Now all you have to do is make sure all your connections are tight and that your top and bottom are lined up and fitted.

## instructables restaurant

### Drunken Drawing Robot !

Inspired by the pocket drunken robot, I wanted to give the robot a job to do. So I decided to let the drunken robot make some drawings

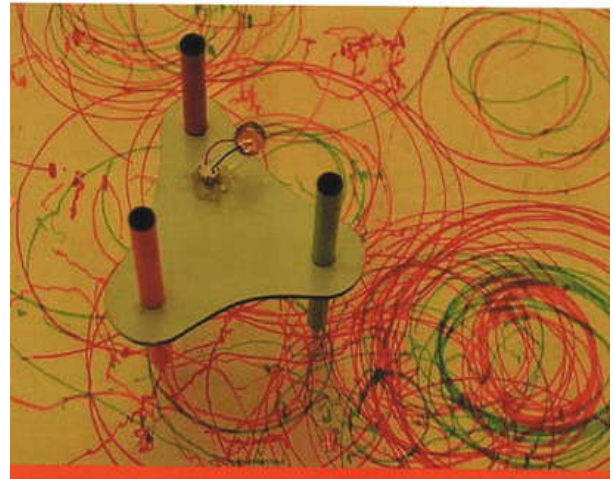
By: Skullbee



**Location:** Amsterdam

**Interests:** Theater, robots, people.

**Views** : 6,833



## instructables restaurant



Step 1: Materials: 3 felt-tipped markers, button cell battery, adhesive copper foil, vibrating motor from a cellphone, a laser cutter, some plexiglass or wood.



Step 2: Once you have your materials ready you'll need to make a couple quick measurements. Find out the diameter of your pens and your vibrating motor.



Step 3: Fire up your favorite vector graphics program and design your plate. I used a triangular shape which is nice and stable, the middle hole is for the motor.



Step 4: Slide your pens into the holes in the plate.



Step 5: Attach the leads of the motor to the sides of the battery with the adhesive foil. Your robot should start buzzing now!



Step 6: Let your drunken robot go nuts! Make some friends for him to bump into and make even cooler drawings.

[www.instructable.com/instructables-restaurant/](http://www.instructable.com/instructables-restaurant/)

## instructables restaurant

### Make an Instructables Restaurant

Let's turn the information on [instructables.com](http://instructables.com) into a real restaurant. There's a wide variety of food and furniture and you can use their website to comment on everything and help make it better.

**Location:** Amsterdam, the Netherlands

**Interests:** Making and inventing, food, nudibranchs.

**Views** : 19,870

By: Arne Hendriks  
and Bas van Abel



[www.instructable.com/instructables-restaurant/](http://www.instructable.com/instructables-restaurant/)



## instructables restaurant



Step 1: Involve people who like to make things, love food, are critical in a positive way and have a well equipped tool shed at their disposal (actually that is the most important thing).



Step 3: Organize a dinner party and use your guest as guinea pigs. Provide a computer with internet so they can feed their comments back into instructables.com.



Step 5: Get all the ingredients and tools you need for the furniture etc. together and organize a production party. Make it fun so people don't run away.



Step 2: For selecting great food involve a chef or great amateur cook who reads recipes like a musician reads music. Have them select meals from a pre-selected list of recipes you made.



Step 4: A restaurant is not just food. Do your research on furniture, lamps, decoration and create something you love. You're welcome to use the graphic design we did.



Step 6: For a more complete description of the process go to <http://www.instructables.com/id/How-to-make-an-Instructables-Restaurant/> And open up!

[www.instructablesrestaurant.com](http://www.instructablesrestaurant.com)

## instructables restaurant

### Homemade Pizza Margherita

Not only Italy's most traditional pizza dish, but also a fabulous way to celebrate the season's harvest of juicy tomatoes.

By: *skyisblu*



**Location:** Montreal, Quebec

**Interests:** Cooking, baking, sewing, Japanese manga

**Views** : 1,644



## instructables restaurant



Step 1: For the pizza dough: hot water(not boiling or you will kill the yeast), dry active yeast, olive oil, salt, sugar, all-purpose flour.



Step 2: For the Margherita topping: olive oil, garlic, ripe tomatoes or cherry tomatoes, grated mozzarella, grated parmesan, 15 large fresh basil leaves.



Step 3: Sprinkle the yeast in the hot water. Let it "bloom" for 5 minutes. Add the oil, sugar and salt and stir. Measure the flour into a large bowl. Make a ball. Leave in a warm place for one hour.



Step 4: Slice the tomatoes as thinly as possible. Mix the mozzarella and parmesan together. Thinly slice the garlic cloves and set them aside. Get your basil out. Now you are ready to garnish.



Step 5: Flour the counter and rolling pin. Brush or spray the top of the rolled-out dough with olive oil and add toppings. Bake 12 to 15 minutes. I highly recommend using a pizza stone.



Step 6: Immediately place the fresh basil leaves on top of the pizza. The heat from the melted cheese will wilt the basil and release all the flavorful oils into the air and into the pizza. Yum.

[www.instructables.com/restaurant/](http://www.instructables.com/restaurant/)

## instructables restaurant

### Flammkuchen

Tarte flambée is an Alsatian dish composed of thin bread dough, which is covered with crème fraîche, onions, and lardons.

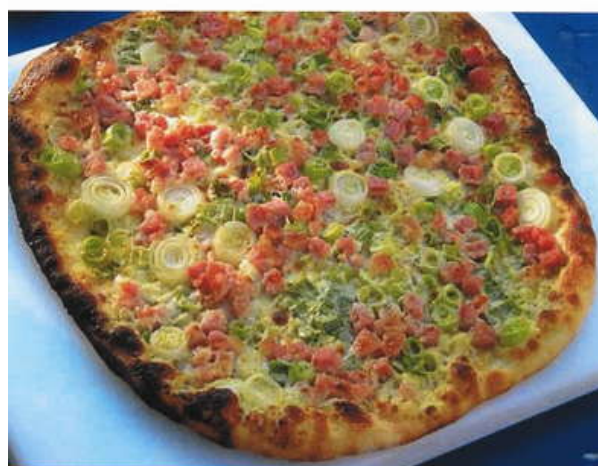
By: t.rohner



**Location:** Altstaetten, Switzerland

**Interests:** brewing, baking, electronics, making stuff

**Views** : 10,651



## instructables restaurant



Step 1: Dough: flour, water, salt, active dry yeast, olive oil. Topping: creme fraiche, quark, smoked, salted bacon cubes, spring onions, salt and pepper, fresh thyme.



Step 3: I chop the spring onions to fine rings. I mix the creme fraiche and quark in a bowl and pepper and salt it to taste. Don't oversalt the mix, since the bacon adds some more salt.



Step 5: In my wood fired oven, I heat the oven, so the oven floor is 350 C / 660 F hot. In the electric oven, it is important to use a pizza stone. My electric oven goes up to 300 C / 570 F.



Step 2: Put all the ingredients in the breadmaker at least 6 hours before use. Start the pizza program on your breadmaker and after a few minutes add a little olive oil.



Step 4: After 6 hrs stretch dough into it's form. The crust is thin. Spread the mix on the dough. Add onion rings and bacon cubes. Pat it down to cover onions and bacon with cream-mix.



Step 6: Lift it after 5 to 10 minutes to see if it done. You should see brown spots on the underside of the crust.

[www.instructables.com](http://www.instructables.com)

## instructables restaurant

### Rose Garden Pizza

Pizza can be art. If it looks good, it should taste great. Please don't use store bought dough or inferior sauce.

By: supersoftdrink



**Location:** Unknown

**Interests:** We make things when we have a few spare minutes because a creative outlet keeps us sane.

**Views** : 1,589





## instructables restaurant



Step 1: Dough: bread flour, salt, honey, dry yeast, black pepper, olive oil, cold water. Grind in the pepper. Drizzle on some olive oil, and roll it to coat it with oil. Place in the fridge overnight.



Step 3: Slice salami, roll cones & secure with toothpick, make lots of them. Cook them separately (for less grease and perfection) or on the pizza. Pull out the toothpicks before serving.



Step 5: Sprinkle flour on your work surface, spread dough into pizza shape, put on the sauce (not too much), add the cheese. Sprinkle on the cheese and add the roses. Put it in the oven.



Step 2: Tomato puree & sauce, honey, salt, garlic, oregano, basil, olive oil, red pepper flakes. Slightly brown the garlic, add tomato puree and herbs, salt and honey, add the crushed pepper.



Step 4: Using more than one type of cheese deepens the flavor. I used mozzarella, provolone, and parmesan. Shred the mozzarella and provolone.



Step 6: Stack a few fresh basil leaves together. Roll them tightly and slice. Save a few smaller basil leaves without shredding and place around the roses. Make sure about the toothpicks!

[www.instructablesrestaurant.com](http://www.instructablesrestaurant.com)

## instructables restaurant

### IKEA TABLESCAPE

This one is for IKEA Hackers with big families who love coming around for birthdays, weddings, funerals & reunions.

By: Arne Hendriks

**Location:** Amsterdam, the Netherlands

**Interests:** Repairing stuff, restaurants & food with a difference, art, hacking IKEA.

**Views** : 8,312



[www.instructablesrestaurant.com](http://www.instructablesrestaurant.com)

## instructables restaurant



Step 1: Ingredients: A lot of IKEA Lack tables, Gaffer Tape, Some cool friends who like to make stuff. Put beer and pizza on the ingredients list, Hack-a-Lacks (look it up on the web).



Step 3: If you did manage to get the cool friends together you did most of the work. Follow the Ikea instructions for assembly or use the hack-a-lacks.



Step 5: When your production party is coming to an end take some distance, then turn around and take it all in. Enjoy the see-throughs, spontaneous pathways and differences of height.



Step 2: Twisting the legs into the Lacks gets painful after about 3 tables. That's where the Hack-a-Lack comes in. It's completely painless and fast! Make one, you won't regret it!



Step 4: The finished Lack tables are good building blocks. Use gaffer tape to make it stronger. Just let everybody come up with ideas. Built a village.



Step 6: On the day of your event rebuild the whole thing, or do whatever you like! You have lots of tables to play around with. What more could you want? Eh... chairs?

## instructables restaurant

### Tom Kha Gai - Thai Coconut Soup

A traditional and tasty Thai soup, this is my favorite comparison point between Thai restaurants and an excellent twist on chicken soup for cold winter days. I'm a huge fan of coconut and chicken soup, so it's a winner for me.

By: Canida

Location: Oakland, CA

Interests: All things brightly colored and shiny, demolition, blinky lights, dancing, costumes, and good food.

Web Site: <http://www.instructables.com/about>



### Related Instructables



**Backpacking Food Packets** by 3leftturns



**Make an Instructables Restaurant** by arne hendriks



**Suitcase Picnic Table and Speaker System** by Carley



**Bar-B-Que Teriyaki Picnic Ham** by Mhbabn



**Additional feet for Picnic tables** by Gareth0123



**Calculating the Percent Sweetener in Chewing Gum (Photos)** by CitizenScientist

### Comments

1 comments [Add Comment](#)



**coppeis** says:

Where can I download these hand outs?

Nov 3, 2010. 4:42 PM [REPLY](#)

<http://www.instructables.com/id/Instructables-Restaurant-Handouts/>

# Open Knit



## OpenKnit

오픈니트는 사용자에게 디지털 파일로 맞춤형을 만드는 기회를 제공하는 오픈소스, 낮은 비용의 디지털 제작 도구이다. 원료인 뜨개실에서부터 스웨터와 같은 최종용도를 만들어내기까지 약 한 시간이 소요된다. 이제 디지털로 옷을 디자인하고 제작하는 것 그리고 같은 장소에서 바로 입는 것이 가능하며, 이는 사용자에게 창의성과 책임감에 기댄 결정을 하게 함으로써 보람을 느끼게 한다.

니틱Knitic이라는 소프트웨어를 통해 단지 몇 번의 클릭만으로 사용자의 커스텀 옷을 쉽게 디자인하고 프린터에 전송하는데, 이 새로운 도구에 대한 접근성을 높이기 위해 과정 중 단계적인 조립 매뉴얼이 제시된다.

'두 니트 유어셀프DKIY'는 가상의 옷장으로, 사용자에게 가까이 있는 사람들과 뿐만 아니라 옷을 공유할 수 있게 하는 오픈소스 의류 플랫폼 역할을 한다. 렵 프로젝트로부터 깊은 영향을 받은 오픈 니트는 공동체를 위해 그리고 함께 유기적으로 커가기 위한 현재진행형 프로젝트다. 개발 가능성으로 가득한 길고 흥미로운 길이 있으며, 그중 많은 것들을 생각할 수 있지만, 행복하게도 아직 밝혀내야 할 것들이 남아있다.

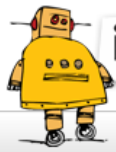


## OpenKnit

OpenKnit it's an open-source, low cost (under 550€), digital fabrication tool that affords the user the opportunity to create his own bespoke clothing from digital files. Starting from the raw material, the yarn, and straight to its end use, a sweater for example, in about an hour. Designing and producing clothes digitally and wearing them can now happen in the very same place, rewarding the user with the ability to make decisions regarding creativity and responsibility.

In order to increase accessibility to this new tool, a step by step assembly manual is published while the software Knitic allows you to design your customized clothes easily and feed them into the printer, just a few clicks away.

Do Knit Yourself, acts as an open-source clothing platform, a virtual wardrobe that allows users to share clothes, not only with those near you. Deeply inspired by the RepRap project, OpenKnit is an ongoing project that waits to evolve organically with/for the community. There's a long and exciting way full of possibilities to be developed, I can think about many of them, but happily some are still unknown.



## Building the Open Knit machine

by **FabSchool** on November 25, 2014

### Table of Contents

|   |    |
|---|----|
| Building the Open Knit machine                                    | 1  |
| Intro: Building the Open Knit machine                             | 3  |
| Step 1: About building this machine                               | 3  |
| Step 2: Shopping list   | 4  |
| Step 3: List of tools   | 5  |
| Step 4: Threading the aluminum profiles                           | 6  |
| Step 5: Prepare the aluminum strips and T-bars                    | 7  |
| Step 6: Assemble the structural bars                              | 7  |
| Step 7: Bend the paperclips                                       | 8  |
| Step 8: Prepare the wooden strips                                 | 9  |
| Step 9: Assemble the comb   | 10 |
| Step 10: Preparing the acrylic parts                              | 11 |
| Step 11: Prepare layer (A)2                                       | 12 |
| Step 12: Assembling the layers                                    | 12 |
| Step 13: Assembling the layers - 2                                | 13 |
| Step 14: Attach the T-shaped bar                                  | 14 |
| Step 15: Align '2020nuts' with holes in acrylic                   | 14 |
| Step 16: Fix the acrylic on top of the structural bar             | 15 |
| Step 17: Placing the 'encoder rack'                               | 15 |
| Step 18: assemble "top_plate_bearings" part                       | 16 |
| Step 19: Prepare the top of the carriage part                     | 17 |
| Step 20: Place the rotary encoder                                 | 18 |
| Step 21: Assemble "top_plate_bearings" part with "top_plate" part | 19 |
| Step 22: Add the gear   | 20 |
| Step 23: Prepare a servomotor                                     | 21 |
| Step 24: Place the servo on the top plate                         | 22 |
| Step 25: Prepare the main carriage                                | 23 |
| Step 26: Attach the N-mount part                                  | 24 |
| Step 27: Add another  | 24 |
| Step 28: Place "servo_mount_carriage" parts                       | 25 |
| Step 29: Prepare the servo motor                                  | 25 |
| Step 30: Make the 'servo beam mount'                              | 25 |
| Step 31: Attach the motor to the carriage                         | 27 |

<http://www.instructables.com/id/Building-the-Open-Knit-machine/>







|  |    |
|--|----|
| Step 32: Assemble the slider part .....          | 27 |
| Step 33: Prepare the SLED mechanism .....        | 28 |
| Step 34: Attach the motor .....                  | 29 |
| Step 35: Add arms .....                          | 29 |
| Step 36: Almost done with the carriage....       | 30 |
| Step 37: Make the 'legs' of the machine .....    | 30 |
| Step 38: Place the 3030 profiles .....           | 31 |
| Step 39: Place the short aluminum profiles ..... | 32 |
| Step 40: Placing the vertical short bars .....   | 33 |
| Step 41: Prepare the yarn carrier .....          | 33 |
| Step 42: .....                                   | 34 |
| Step 43: .....                                   | 34 |
| Related Instructables .....                      | 34 |
| Advertisements .....                             | 35 |
| Comments .....                                   | 35 |





Author: FabSchool FabSchool

In hands-on workshops at the Fablab, a hightech workspace, we give youngsters the tools they need for tomorrow's society: art, creativity, entrepreneurship and critical reflection. We want to find out how creative design processes and working spaces can play a role in education. FabSchool is a joint project of Waag Society (Amsterdam) and Rotslab (Utrecht).

## Intro: Building the Open Knit machine

The Open Knit machine is an open-source, low cost, digital fabrication tool developed by Gerard Rubio. The machine affords the user the opportunity to create his own clothing from digital files. Designing, producing and wearing clothiers can now happen in the very same place, allowing the user to make decisions regarding creativity and responsibility.

This instructable shows you how to build the Open Knit machine step by step. The instructable has been developed for the Open Knit Machine workshop organized by Gerard Rubio, Waag Society and TU/E within the CRISP Smart Textile Services project.

The machine is work-in-progress: anyone is allowed and encouraged to reproduce it and help improve it. So comments and suggestions on both the design and the instructable are very welcome!

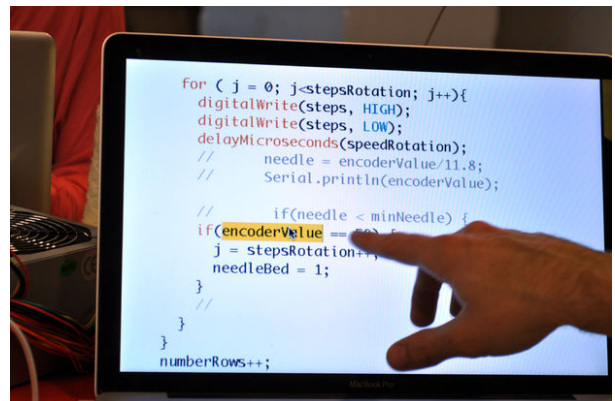
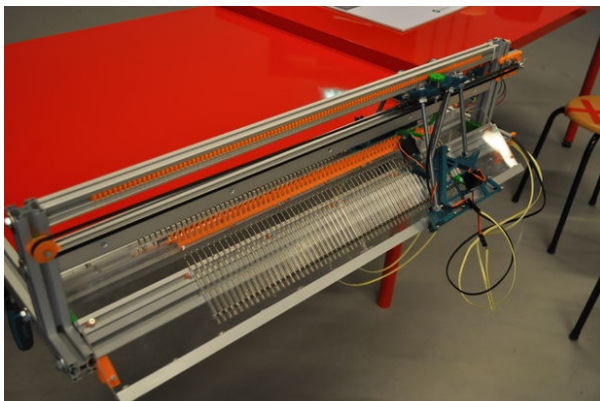


## Step 1: About building this machine

The process from start to scarf can be divided in three steps:

- building the machine
- connecting the machine
- using the machine

This instructable shows you all the steps to build the structural part of the machine.



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



## Step 2: Shopping list

updates available at: <https://github.com/g3rard/OpenKnit/tree/master/Wa...>

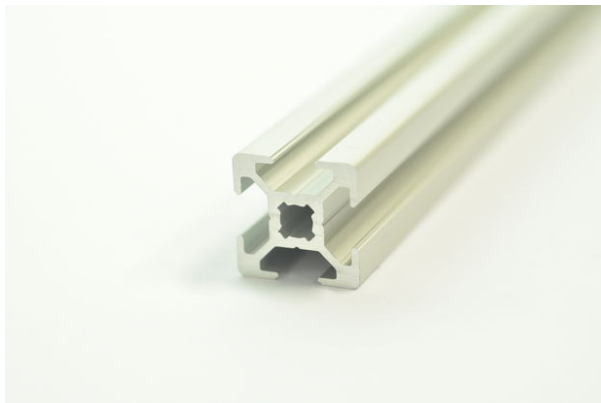
- 805x604 mm acrylic sheet: <https://github.com/g3rard/OpenKnit/tree/master/Wa...>
- 3D printed parts: <https://github.com/g3rard/OpenKnit/tree/master/Wa...>
- 2 800 x 3 mm aluminum strips
- 2 800x2 mm aluminum strips
- 2 30x30x162 aluminum bars
- 2 30x30x300 aluminum bars
- 2 20x20x800 aluminum bars
- 2 30x30x800 aluminum bars
- 2 15x15x800 aluminum T-profile
- Arduino Leonardo
- 1 microinterruptor
- rotary encoder
- axial bearing
- stepper motor
- timing pulley
- 6 threaded rods, sizes: 2x16 2x17 and 2x22
- 120 needles
- 4 servo motors
- 4 servo motor driver
- timing belt
- 16 v-groove bearings
- block of paraffine
- molex c-grid plastic holders: 4-pin, 3-pin and 2-pin
- molex c-grid female pins
- phone cable
- paperclips 32 mm type N.2
- piano hinge 510 mm
- 2 wooden strips: flat on one side, a hole every 60 mm
- brass rod 1.5 mm
- pin headers, male and female
- terminal block
- switching power supply
- cross shaped bead

<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



### Bolts and nuts, in generous amounts

- M3 tapered 7 mm
- M3 tapered 10 mm
- M3 tapered 12 mm
- M3 tapered 16 mm
- M3 tapered 20 mm
- M3 tapered 30 mm
- M3 flat head 8 mm
- M3 flat head 10 mm
- M3 flat head 12 mm
- M3 flat head 16 mm
- M3 flat head 20 mm
- M3 flat head 30 mm
- M3 regular nuts
- M3 nylock
- M3 washers
- M8 nuts and bolts (only a few)
- M8 washers (only a few)



### Step 3: List of tools

- flat screwdriver medium size
- phillips screwdriver medium size
- allen key M3
- pliers
- tweezers
- wrench M6 and M8
- small flat file
- small circular file
- hammer
- small zip ties
- grease lubricant
- spray or liquid lubricant

<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



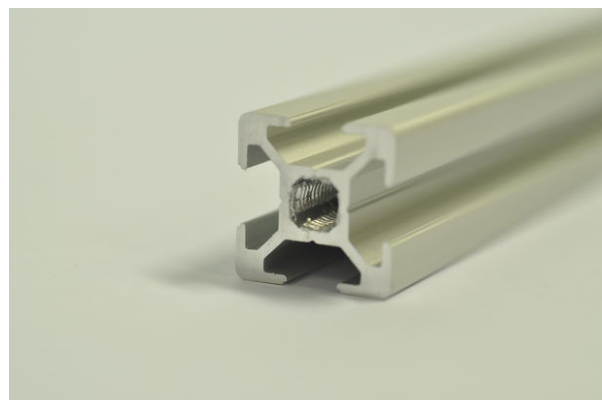
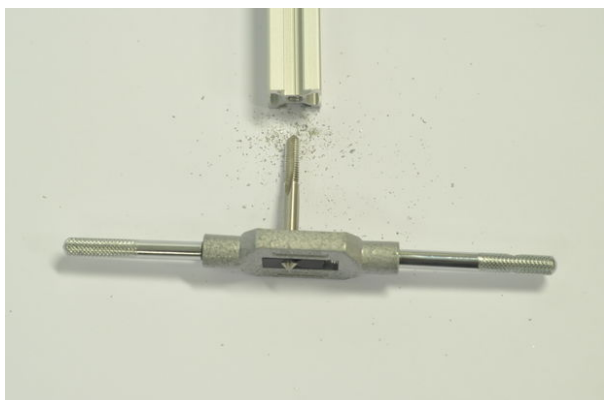
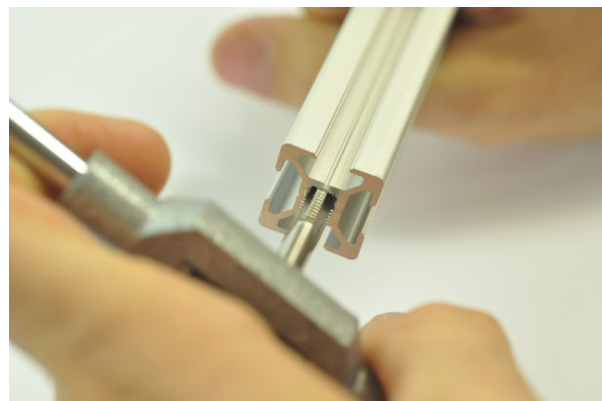
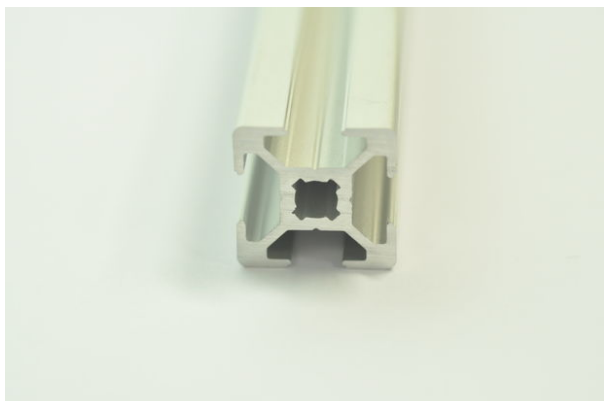
#### Step 4: Threading the aluminum profiles

You'll need to thread:

Two 20x20x800mm bars: 6 mm tool on both sides

Two 30x30x800mm: 8 mm tool on both sides

Two 30x30x162mm: 8 mm tool on ONE side, plus one 8 mm hole on the top (see image)



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



### Step 5: Prepare the aluminum strips and T-bars

Make holes, and sink them with a countersink tool so the bolts will not stick out.

#### Flat strips

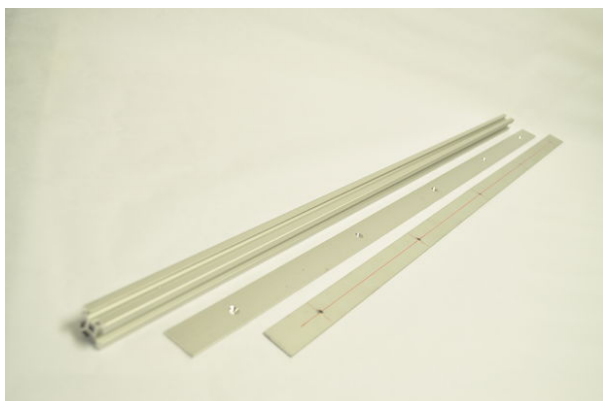
Make a hole at 50, 225, 400, 575, 750mm

(this doesn't have to be very precise)

#### T-shaped bar:

Make holes at 14, 142, 271, 392, 410, 529, 657, 787 mm

Place profile next to the acrylic to mark the exact place where the holes are going to be, this MUST be precise.



### Step 6: Assemble the structural bars

#### You need

20 x 20 profiles

20 mm aluminum strips

3D printed squares (8x8 mm) : '2020 nuts'

threaded nuts

M3 x 7 bolts

#### Prepare the 2020 nuts:

You need the 3D printed squares (8x8 mm) and threaded nuts, five per strip. Place the nuts into the 3D printed parts.

#### Slide the nuts into the profile bar

See picture. Align the nuts with the holes in the aluminum strip.

#### Close the top of the bar

Using the M3 bolts

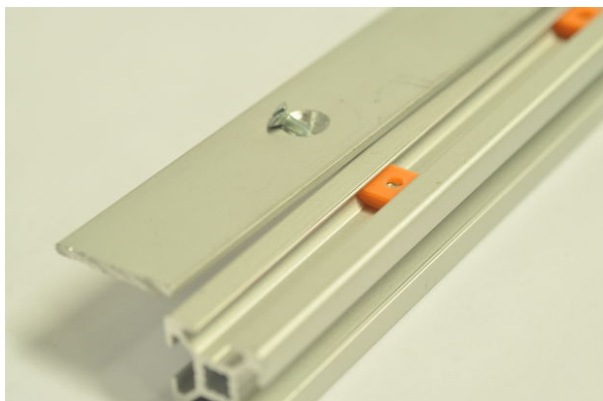
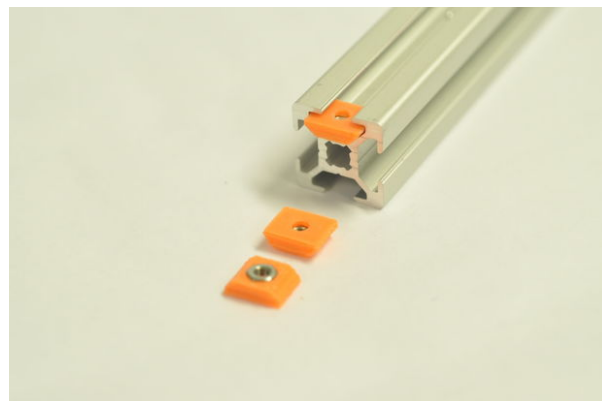
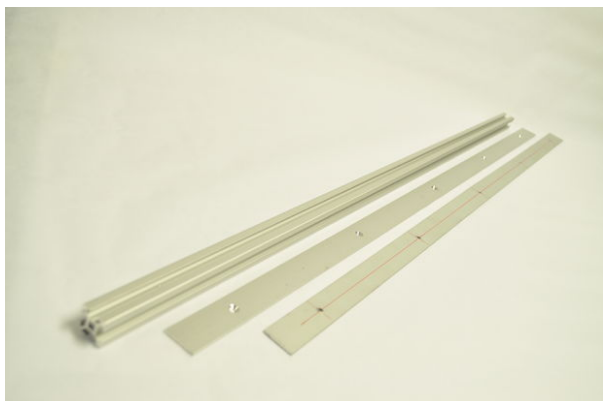
#### Repeat on the bottom

<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



Slide in five 2020 nuts, close the assembly with an aluminum strip.

Repeat this procedure with the other 2020 profile bar



### Step 7: Bend the paperclips

Bend the paperclips as indicated in the image. The 'hook' on the right is the end result. You'll need 60 of them, have fun bending!



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



### Step 8: Prepare the wooden strips

The wooden strips will be part of the comb. For this part you need:

2 Half rounded wooden strips, a hole every 60 mm and lines every 15 mm

60 paperclips

Long flat hinge

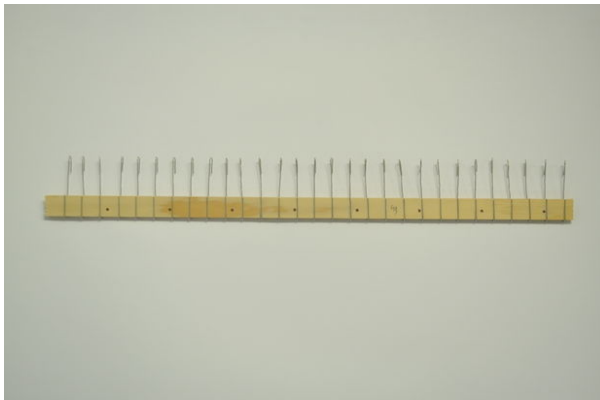
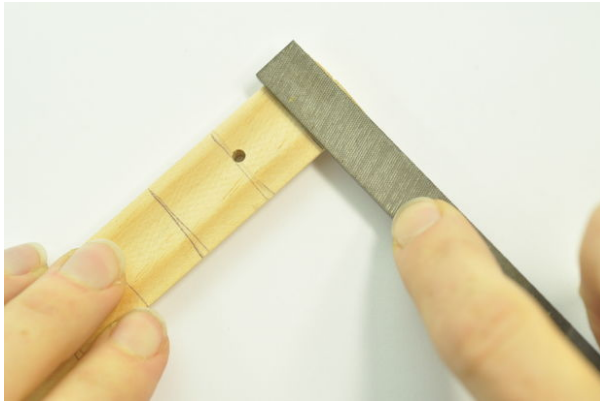
M3 bolts and nuts, 12 mm

#### Preparation

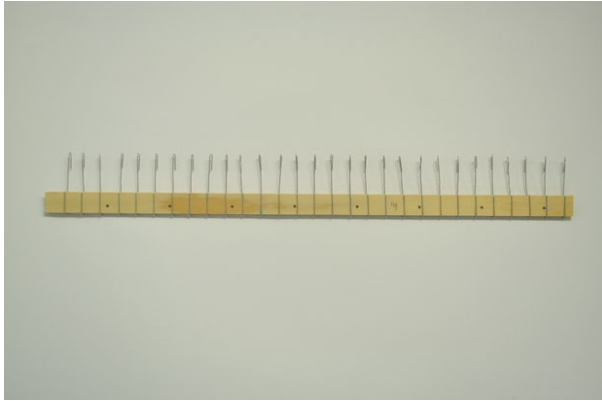
File small slide at the indicated lines

Place the clips inside the slits. 30 per bar

Take a look at the pictures how to position the 'hooks'

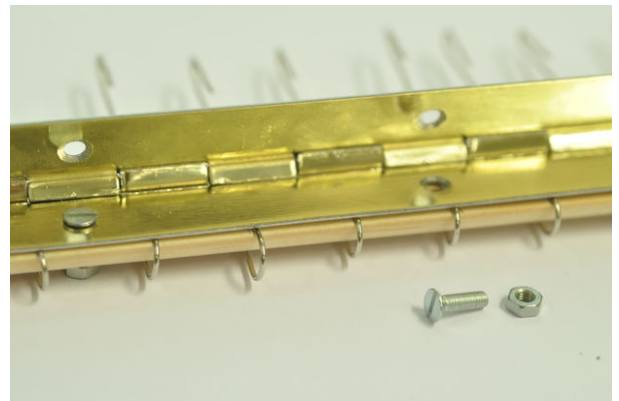


<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



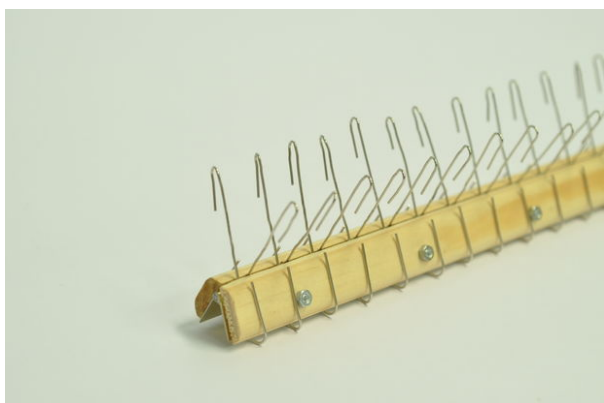
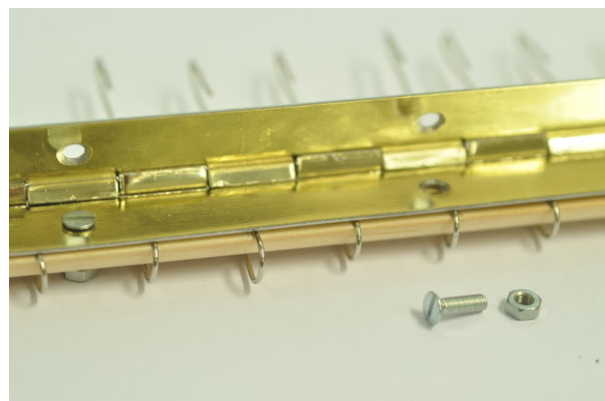
### Step 9: Assemble the comb

Attach the hinge to the flat sides of the wooden pieces as indicated in the images. When the hinge opens, the hooks cross each other.



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>

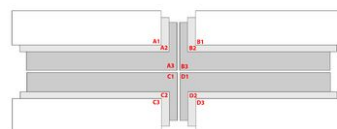




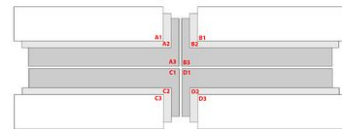
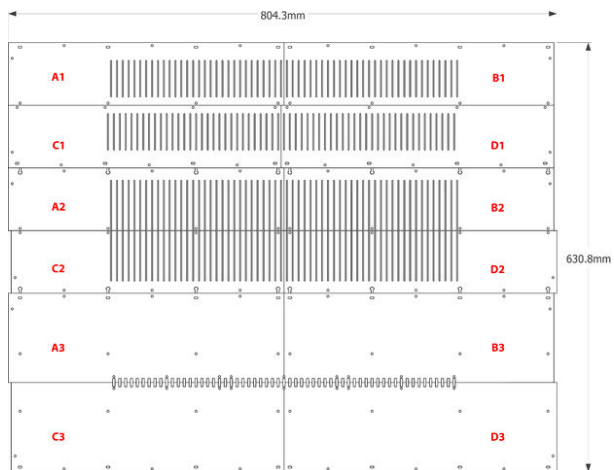
### Step 10: Preparing the acrylic parts

Place the acrylic parts in front of you on a table as indicated.

Make four piles of three layers each:



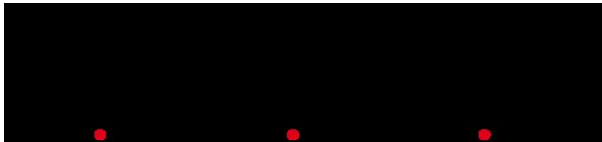
<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



### Step 11: Prepare layer (A)2

Start with pile A. Take layer A1 off

In layer A2, sink three holes, indicated in RED. Then later, the bolts will not stick out.

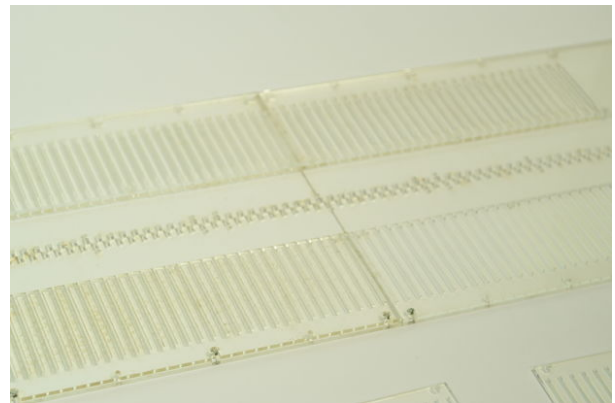
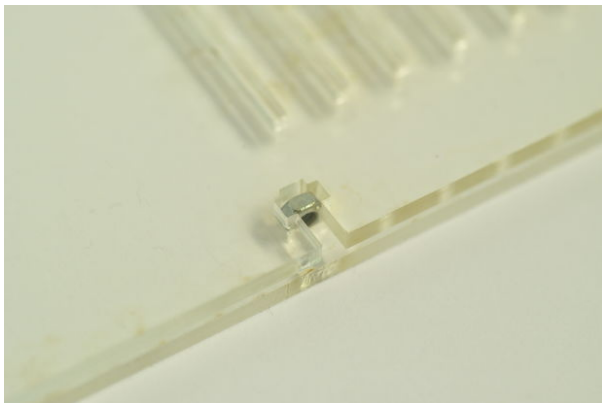


### Step 12: Assembling the layers

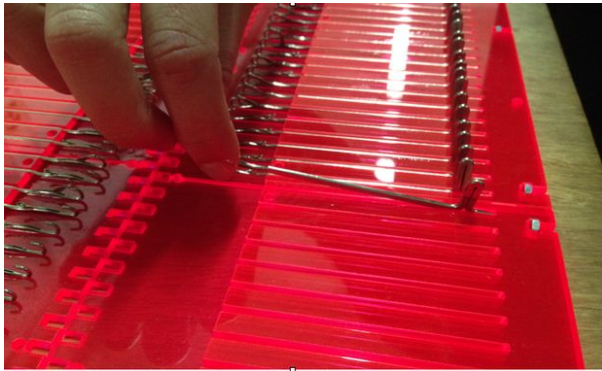
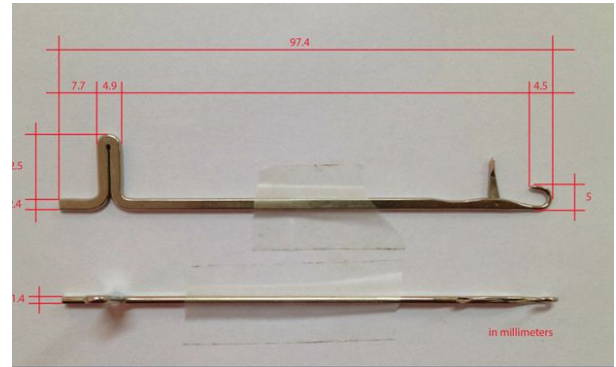
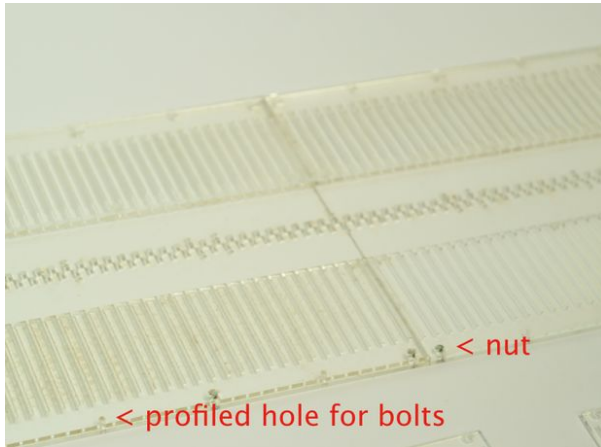
Place nuts into the 4 pockets in A2

Place 120 needles in the openings

Repeat for pile B, C and D



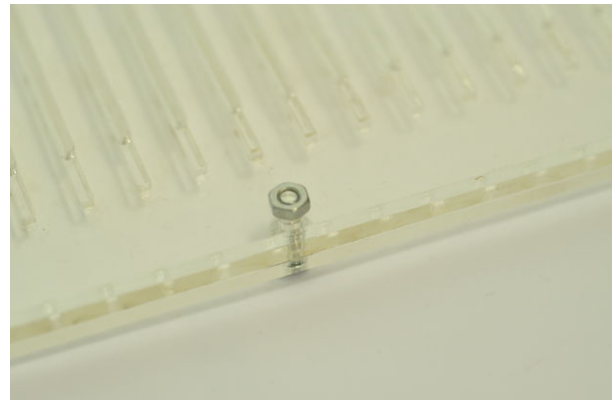
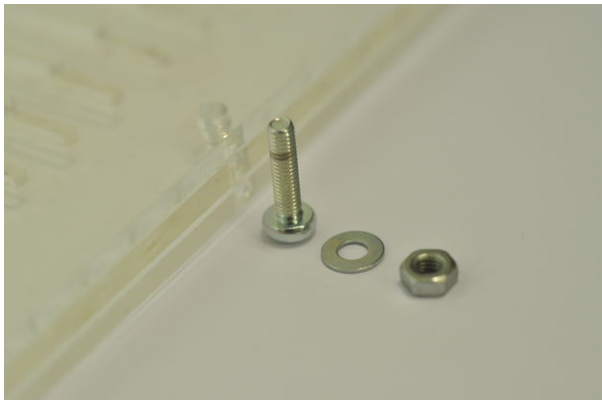
<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



### Step 13: Assembling the layers - 2

Place layers (A, B, C, D) 1 back on top, get 8 rounded bolts M3 x 12

Fix the layers.



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>





#### Step 14: Attach the T-shaped bar

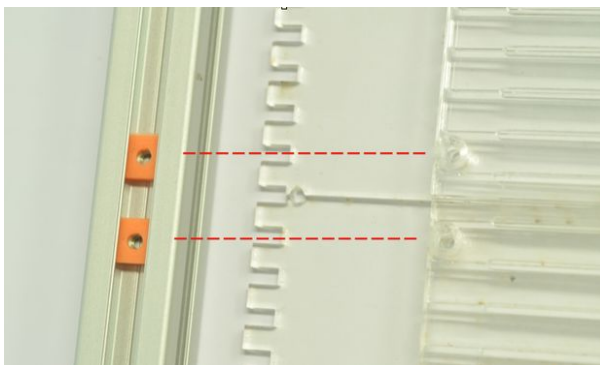
Attach the T-shape profile to the bottoms of A 1-3 and B1-3

First loosely, if it al fits thighten all bolts



#### Step 15: Align '2020nuts' with holes in acrylic

(in the NON threaded 2020 profiles)



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>

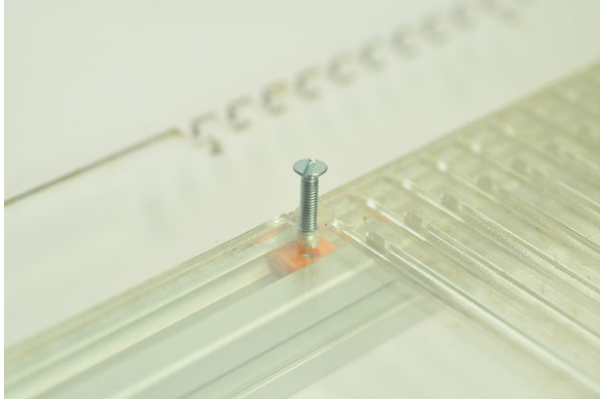


### Step 16: Fix the acrylic on top of the structural bar

Sink holes, and place bolts & nuts through acrylic into the nuts

Use 8 x M3x14 countersink bolts

Also fix piles B, C and D to the T shape and structural bar.

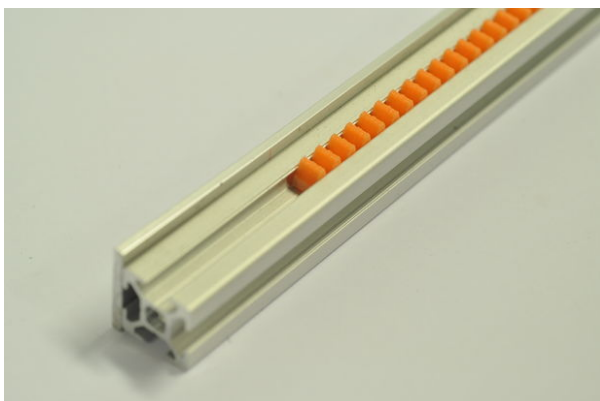
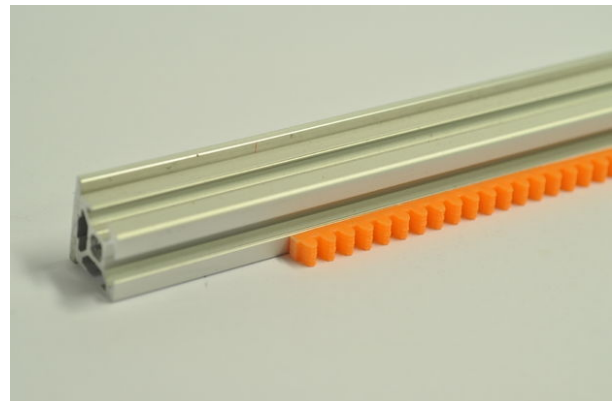
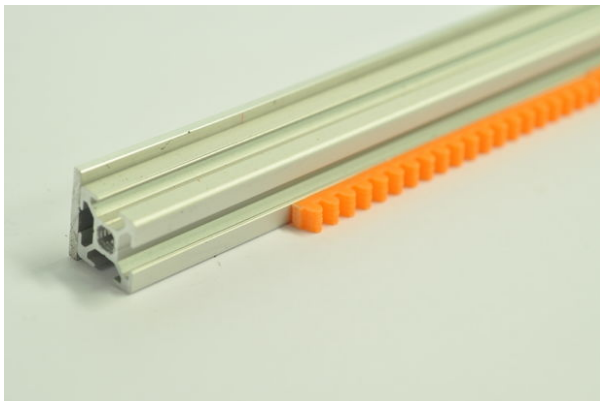


### Step 17: Placing the 'encoder rack'

First place 'encoder\_rack' pieces along the bar

Leave 50 mm on each side

Press the piece into the bar

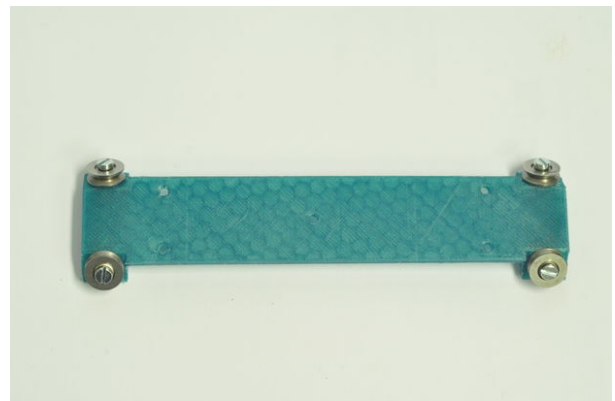
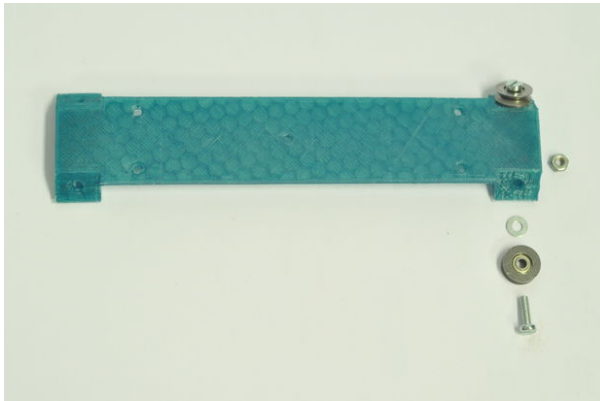


<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



**Step 18: assemble “top\_plate\_bearings” part**

Take the “top\_plate\_bearings” part + 4 bearings and attach them as indicated



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



### Step 19: Prepare the top of the carriage part

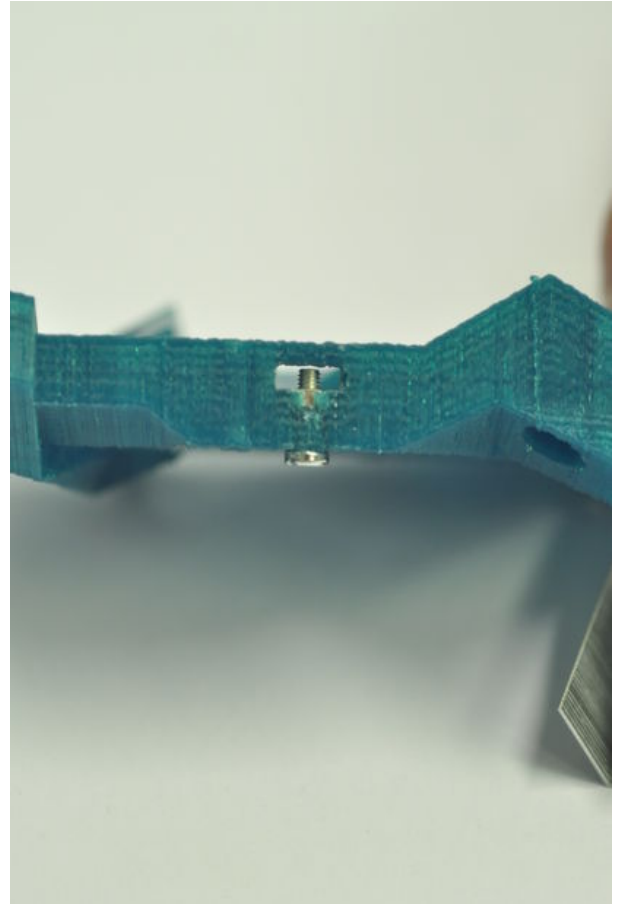
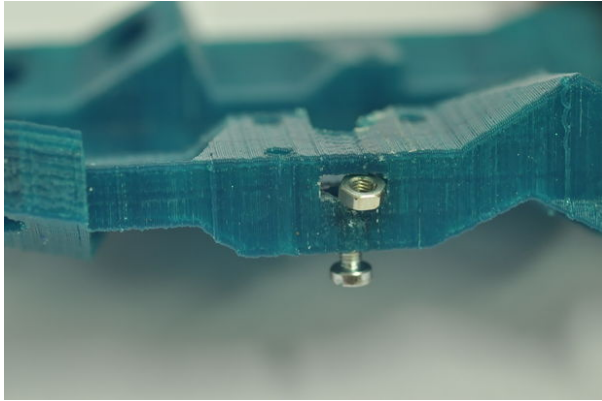
Take the "top\_plate" part

Place a nut into the hole

Catch the nut with the screw

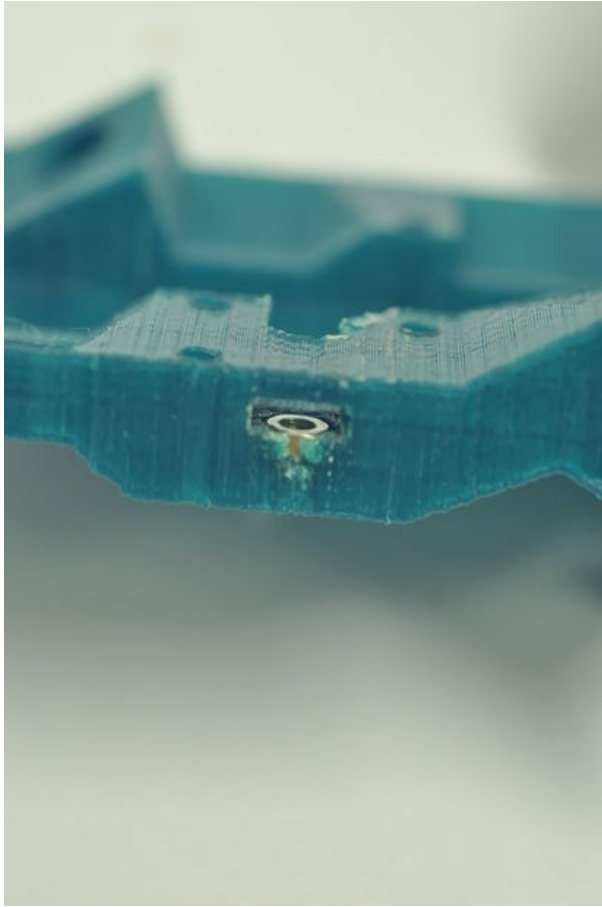
Pull the nut down, take screw out.

Now the nut is 'seeded'



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>

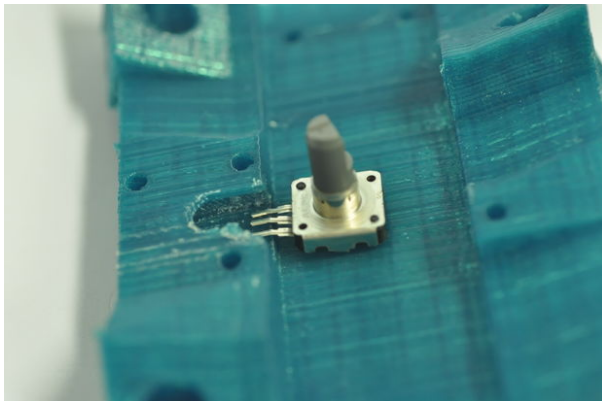




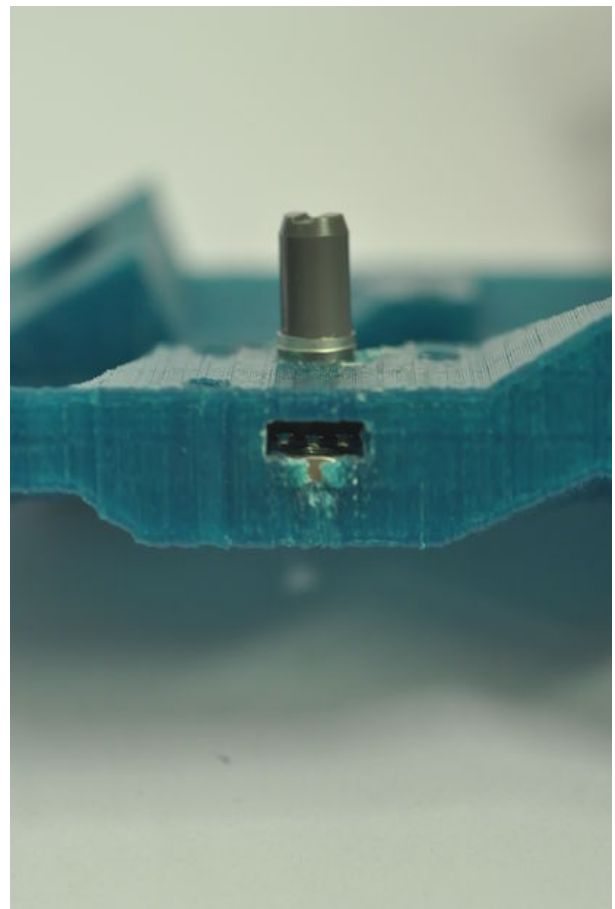
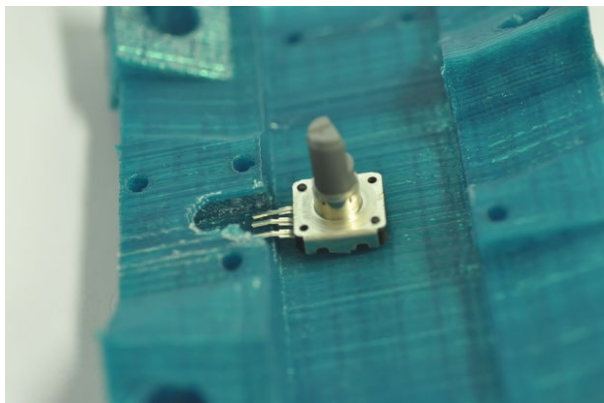
### Step 20: Place the rotary encoder

Place the rotary encoder with the pins straight, cut the legs

Slide it in, careful with the pins



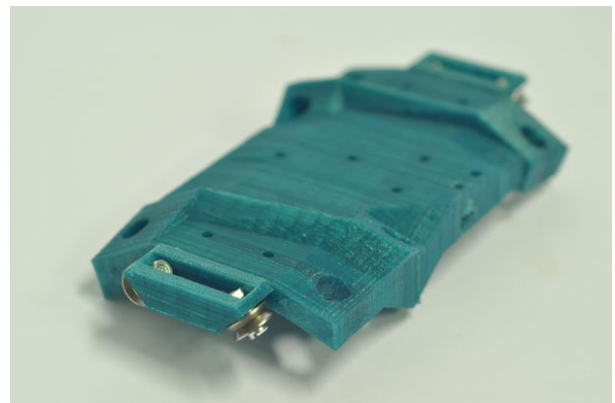
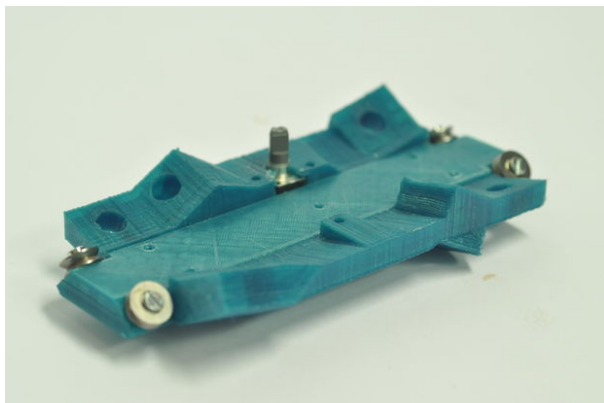
<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



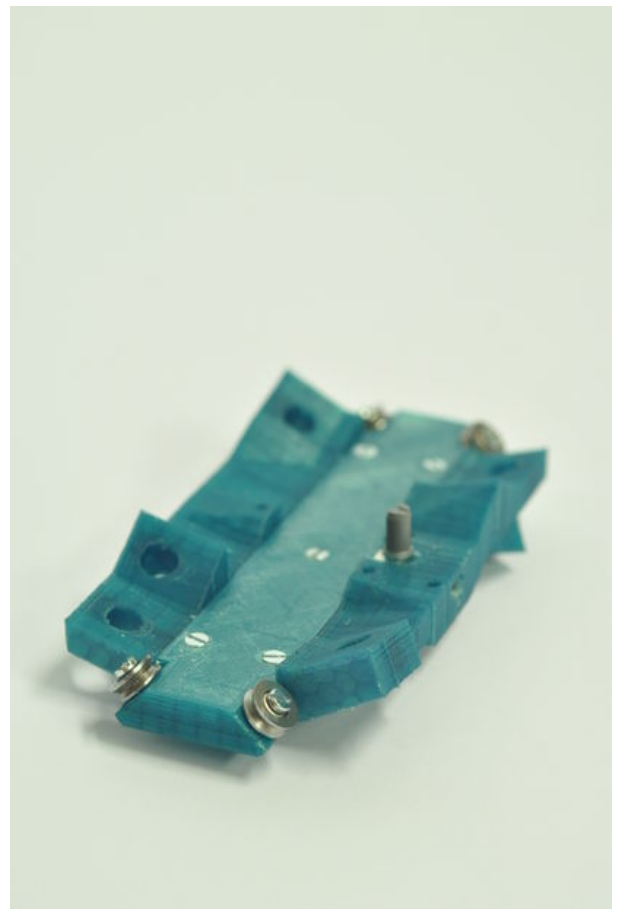
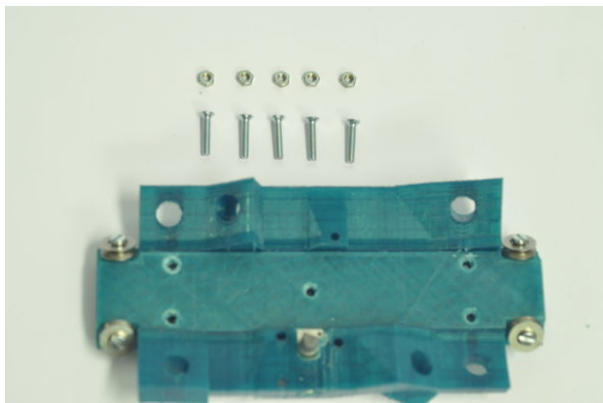
**Step 21: Assemble “top\_plate\_bearings” part with “top\_plate” part**

Take five long M3x12 countersink bolts

Attach the two parts firmly

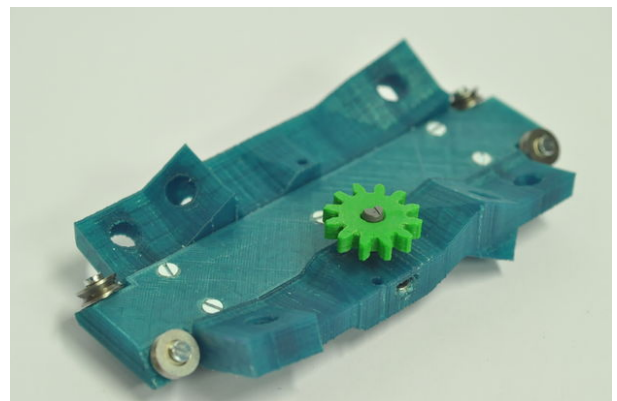


<http://www.instructables.com/id/Building-the-Open-Knit-machine/>

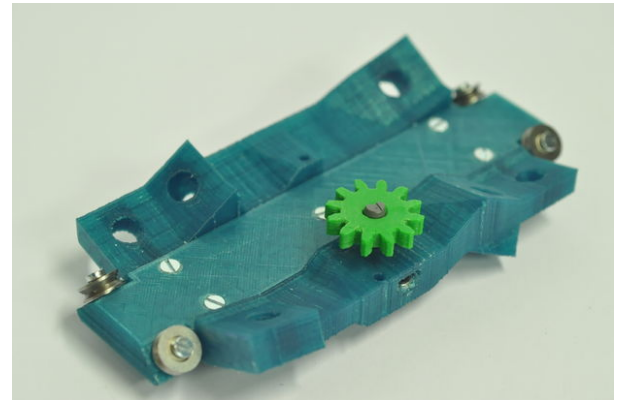
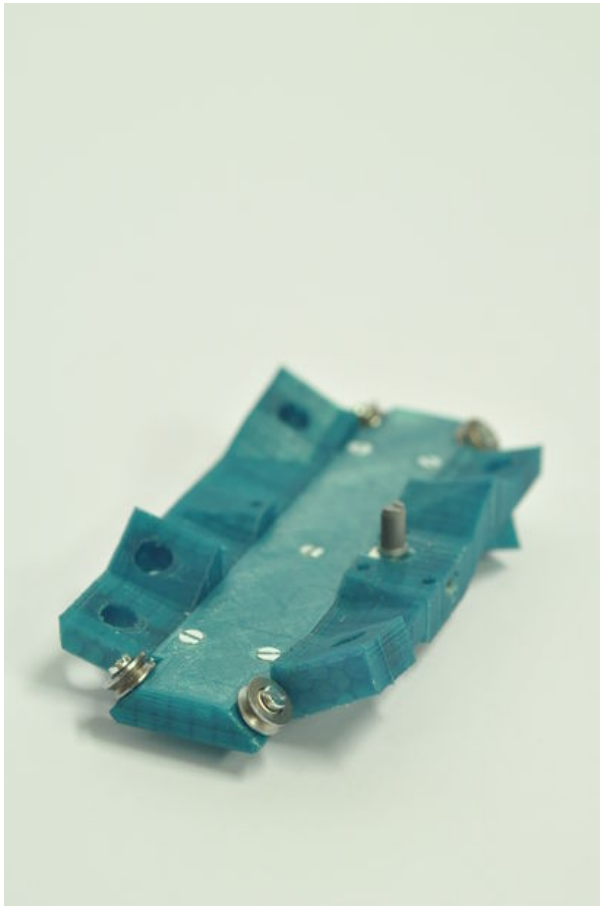


### Step 22: Add the gear

Once the screws are all attached, place the "encoder\_pinion" on the rotary encoder.



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



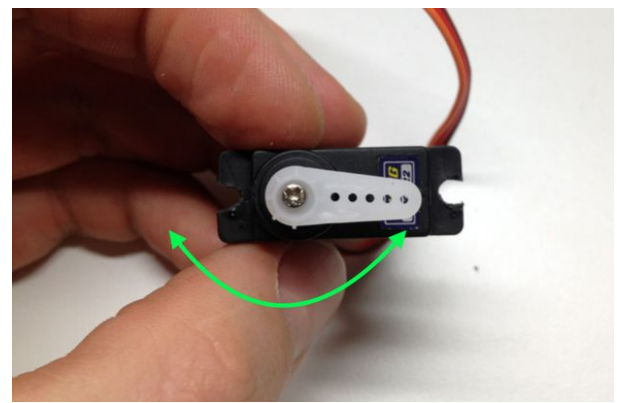
### Step 23: Prepare a servomotor

Use the "top\_plate\_servo\_mount", place the servo in - be careful not to loose the tiny servo bolt that comes with the motor

Make sure the arm does the movement indicated in green

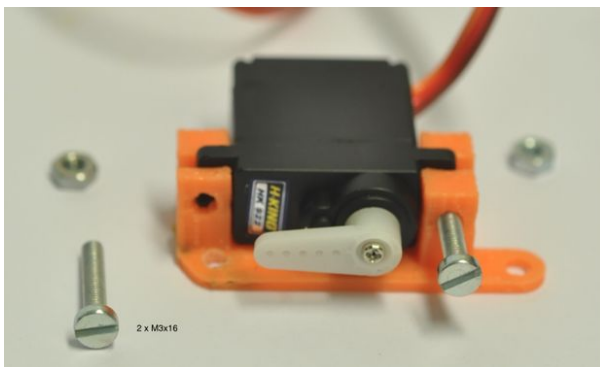
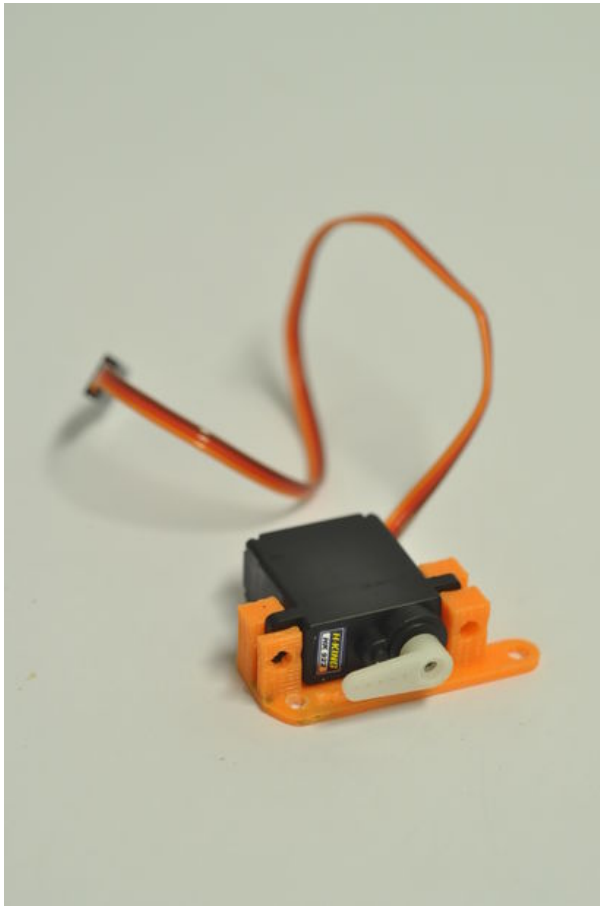
Attach the tiny screw

Put M3 x 16 bolts through holder and motor to fixate them



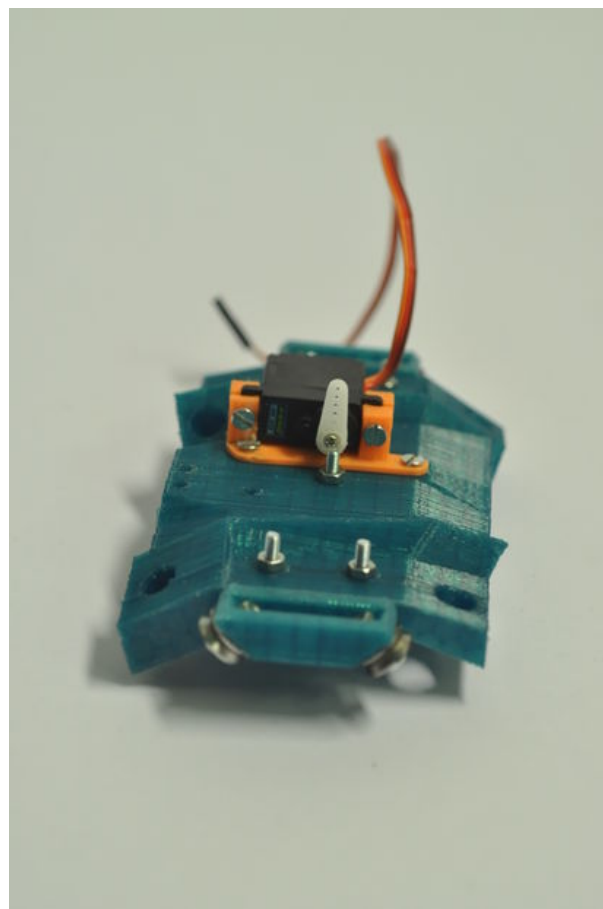
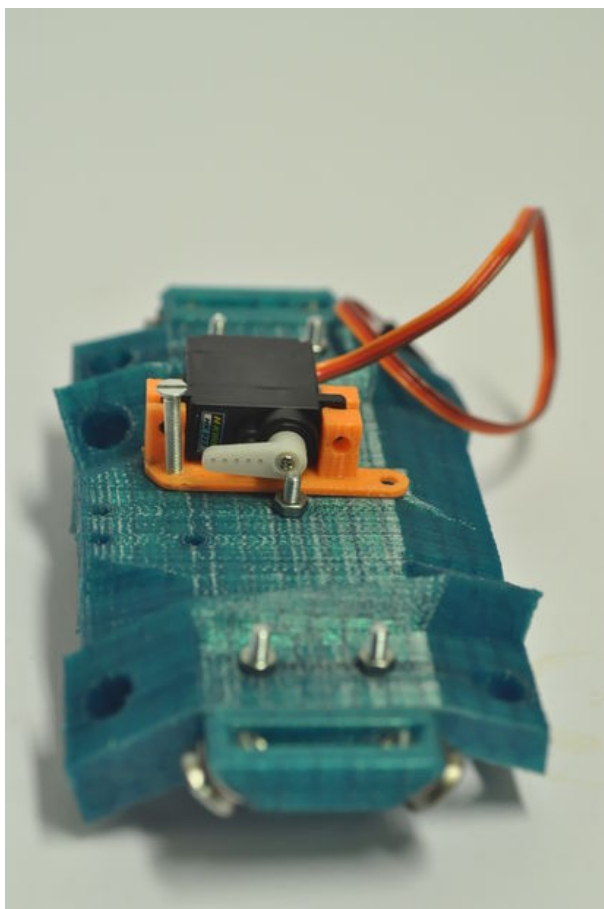
<http://www.instructables.com/id/Building-the-Open-Knit-machine/>





**Step 24: Place the servo on the top plate**  
 Attach the servo on top with 3 bolts

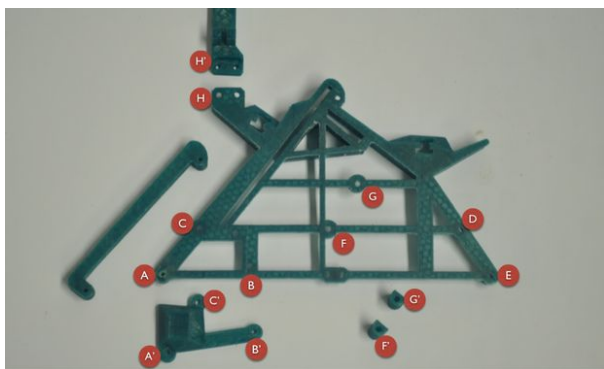
<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



### Step 25: Prepare the main carriage

These are the parts you need.

Each hole corresponds to a letter



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>

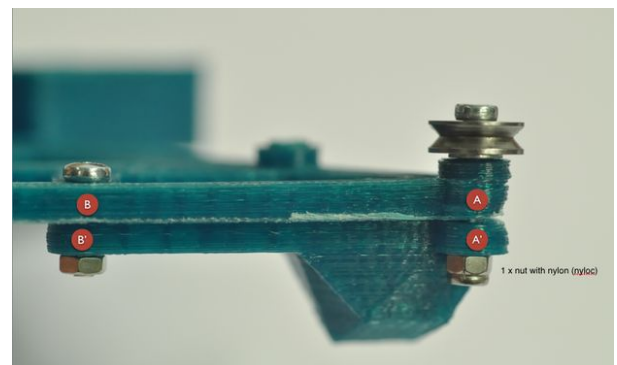
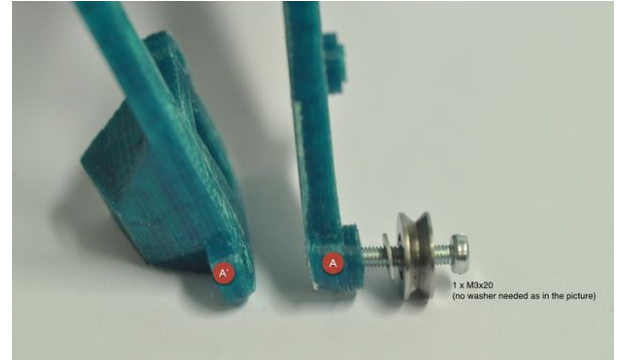
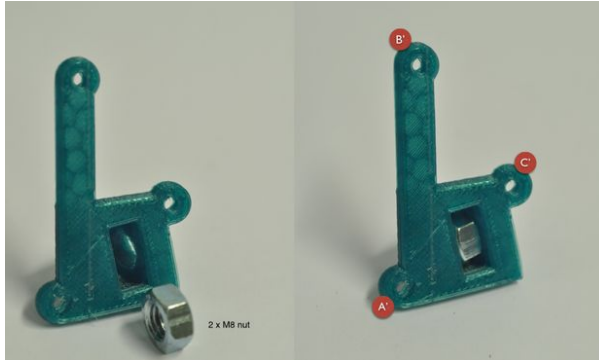


### Step 26: Attach the N-mount part

Place M8 nut into the "N\_mount"

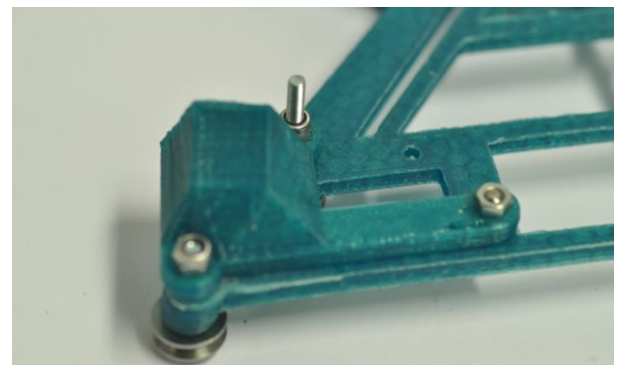
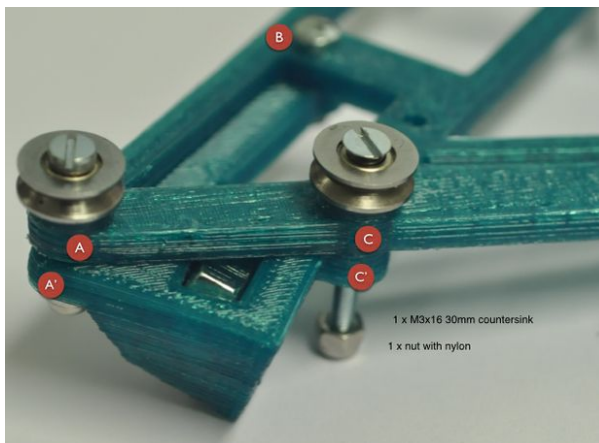
Position it with the "carriage" part and a bearing

Attach the long end with a bolt

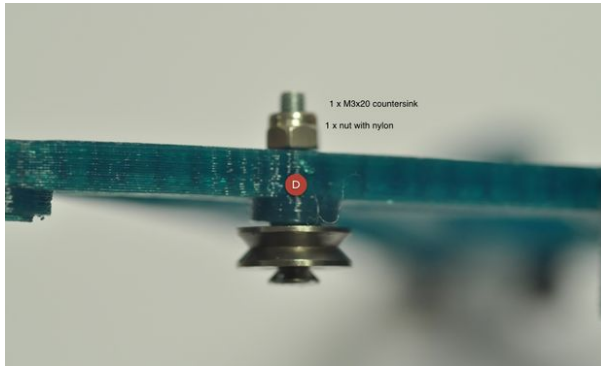


### Step 27: Add another

Use M3x16 30mm countersink bolt and nylock nut to attach the bearing.

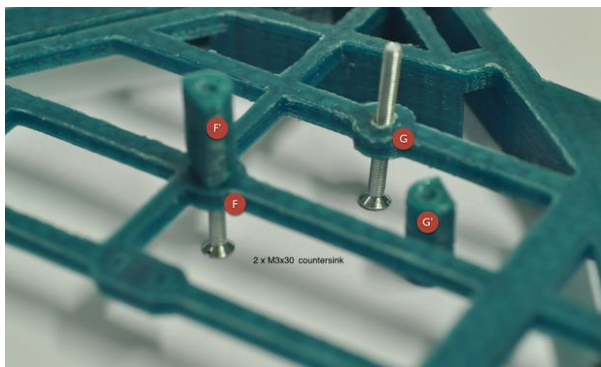


<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



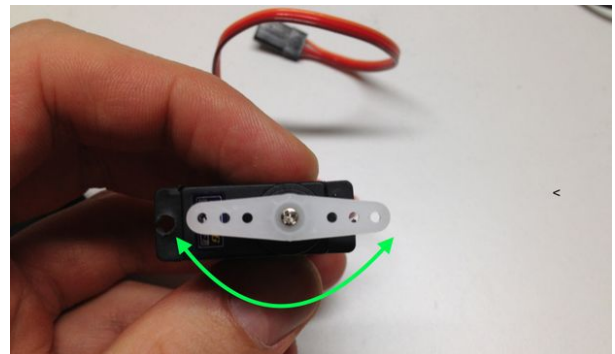
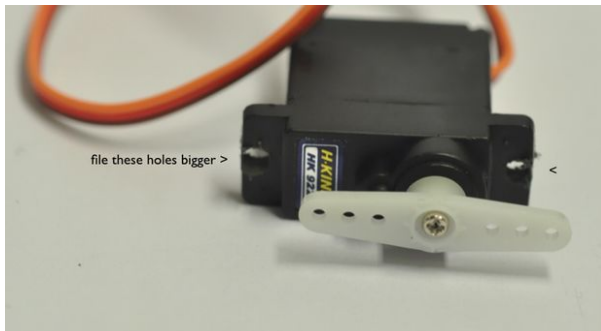
### Step 28: Place “servo\_mount\_carriage” parts

You'll need 2 x M3x30 countersink bolts to place the servo mount carriage parts.



### Step 29: Prepare the servo motor

Position the 'wings' of the servo motor like this and fix with the tiny screw from the package. File its holes on both sides of the black plastic, they need to be a bit wider. Make sure the arm moves as indicated in green.



### Step 30: Make the 'servo beam mount'

Take the 3D printed 'servo beam mount' part.

Bend the pin

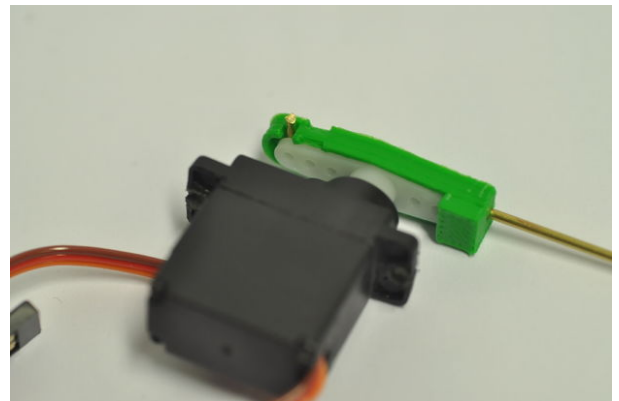
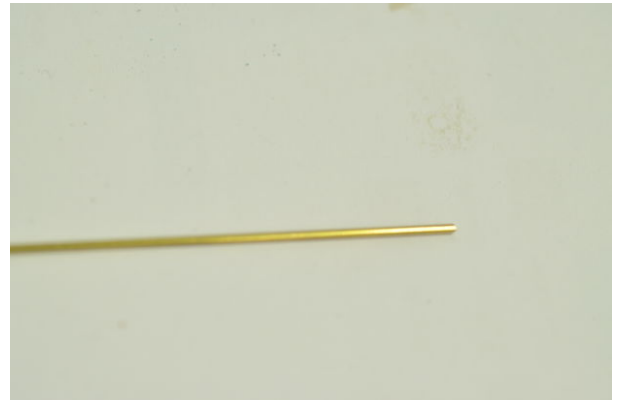
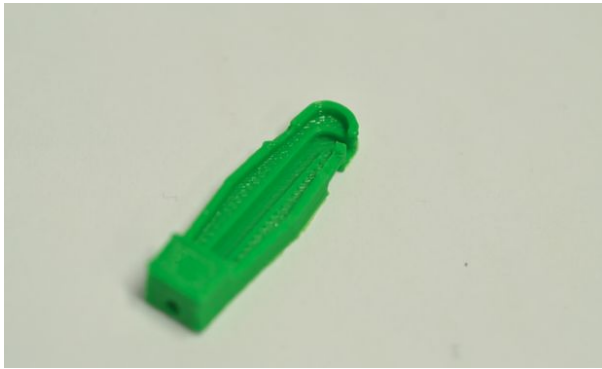
Slide the pin into the part

Position it over the servo motor wings

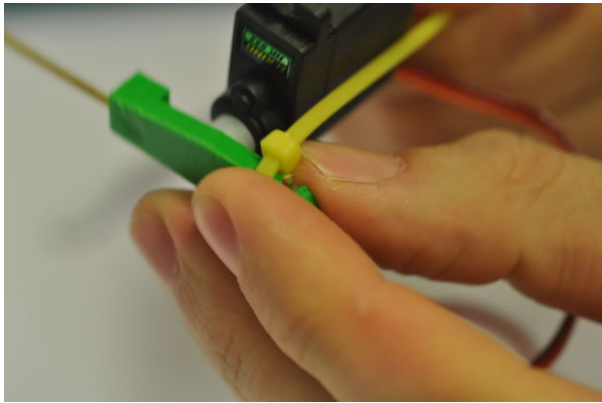
Tie the pieces together

<http://www.instructables.com/id/Building-the-Open-Knit-machine/>

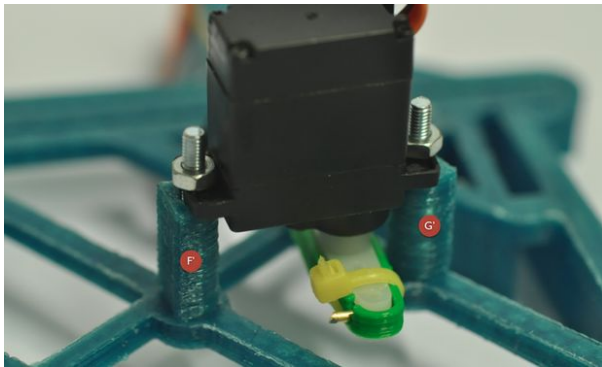




<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



**Step 31: Attach the motor to the carriage**  
Using long M3 bolts and nuts



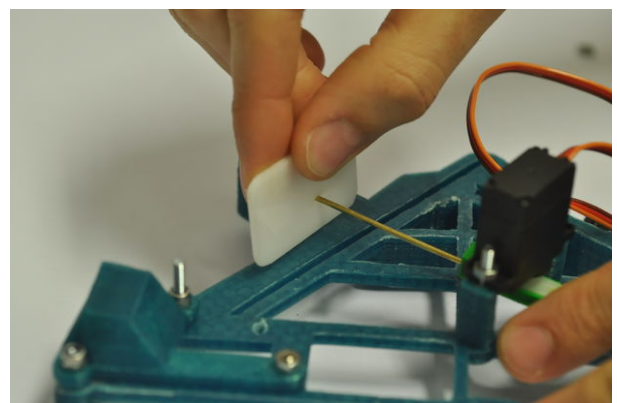
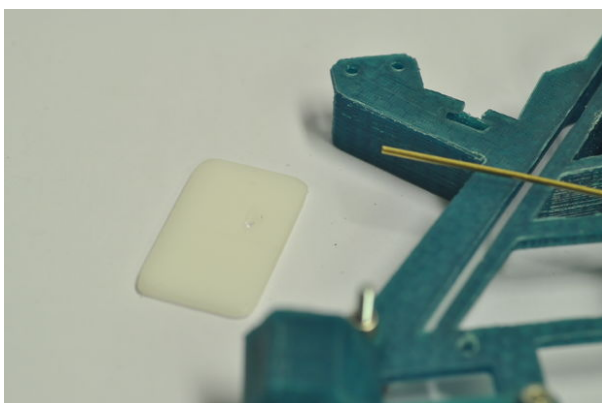
**Step 32: Assemble the slider part**

Take the white acrylic 'slider' square

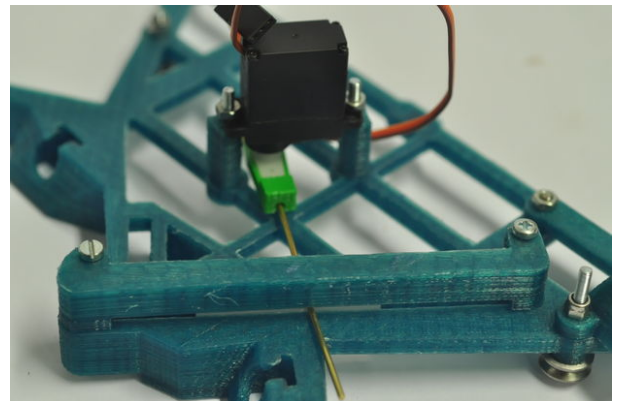
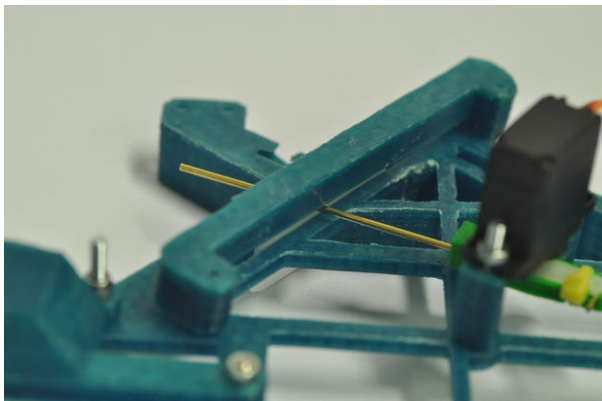
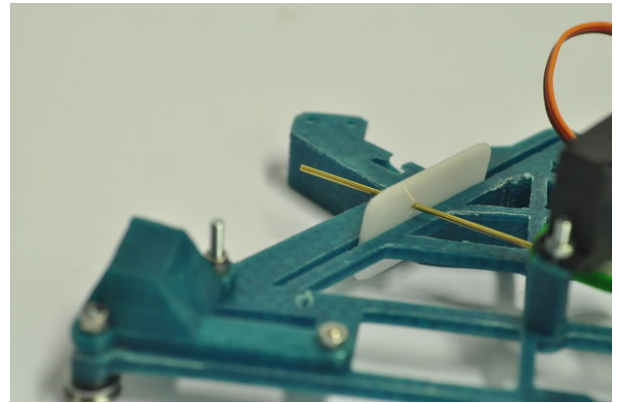
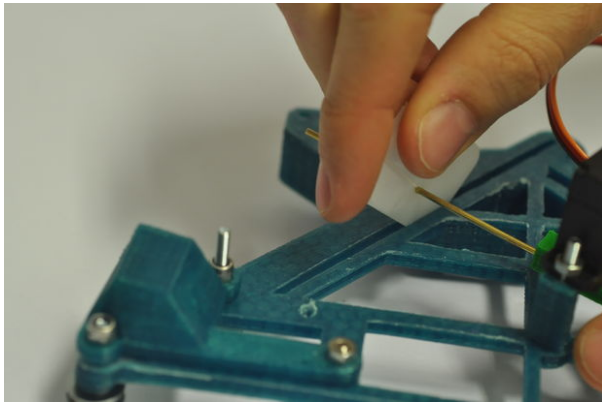
Position it on the pin

Place it in the slid as indicated in the image. Now it should be able to slide.

Attach the 3D printed 'slider guide' on top with M3 cross bolts



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



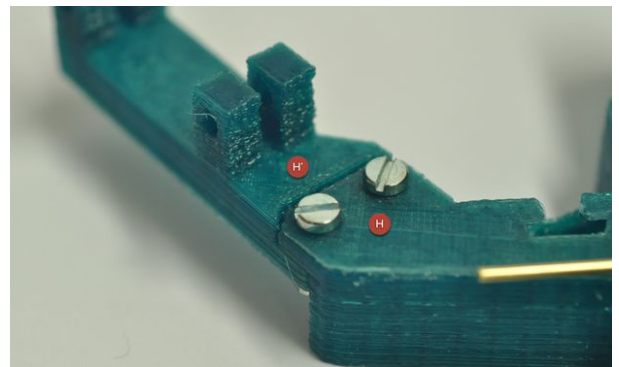
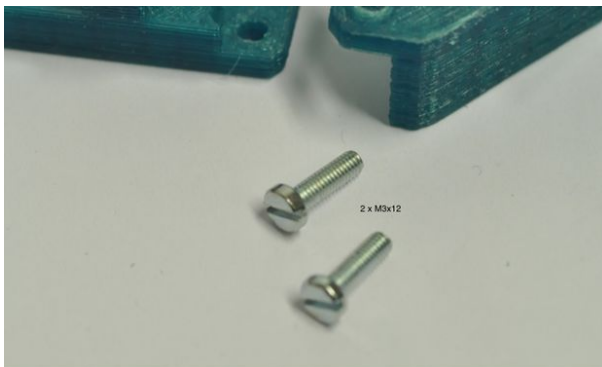
### Step 33: Prepare the SLED mechanism

Use two M3 x 12 bolts

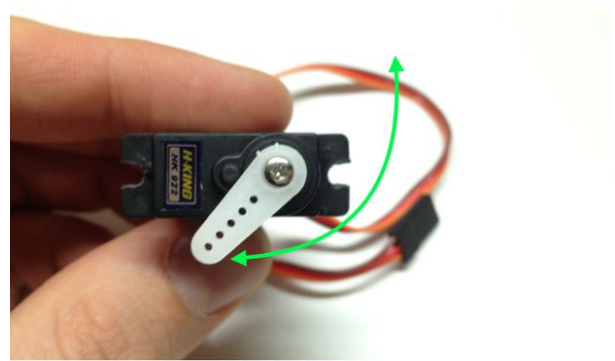
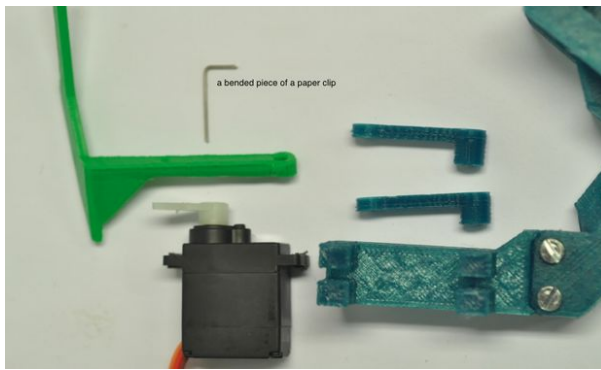
To place the 'sled mount' on the carriage

Take 'sled', 'sled arms' and a servo motor, plus a bended paperclip

Make sure the arm of the servo can move as indicated with the green arrow in the picture



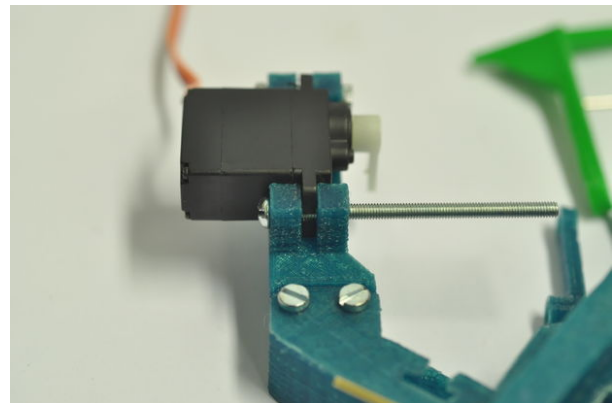
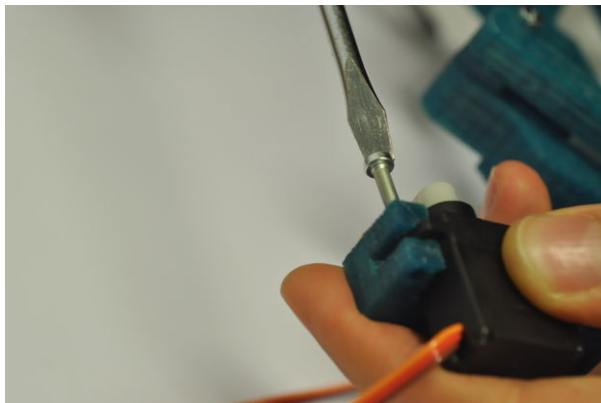
<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



### Step 34: Attach the motor

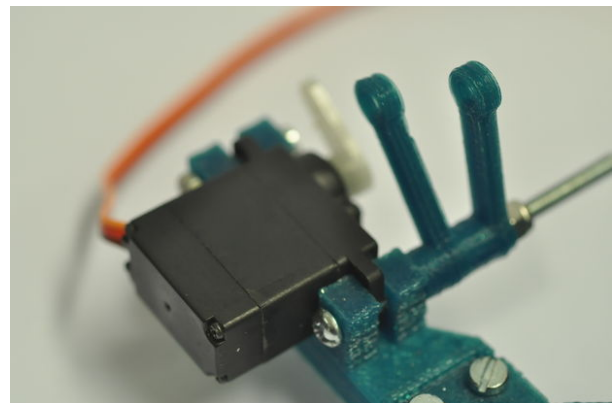
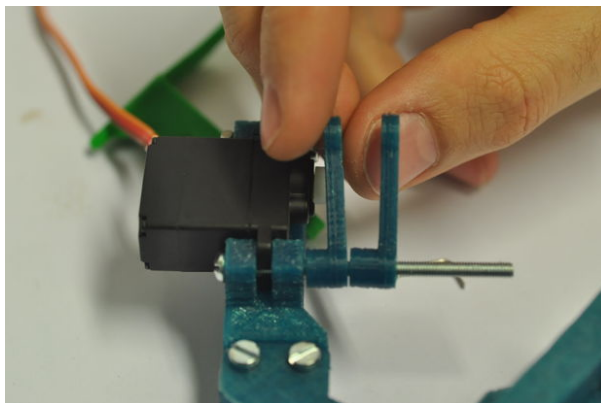
Screw the motor to the sled mechanism using an M3 x 16 bolt

Slide the long M3x35 bolt through the hole



### Step 35: Add arms

Now slide two of the arms over the 35mm bolt towards the motor. Finish it with a nut with nylon, allowing the arms to turn freely



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>

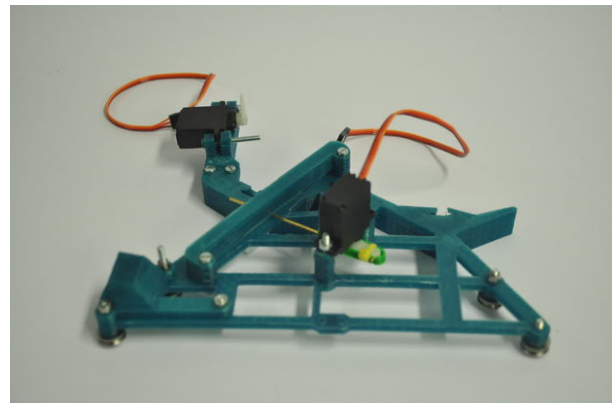
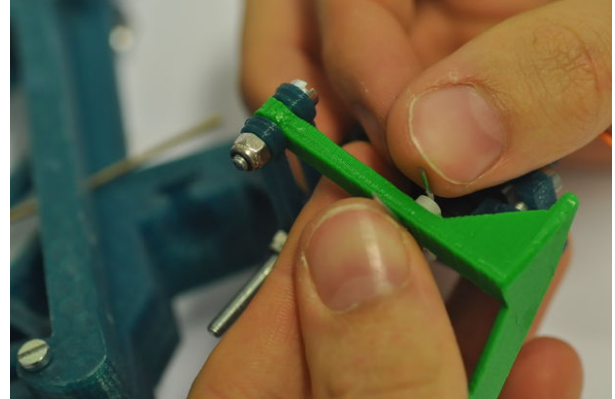
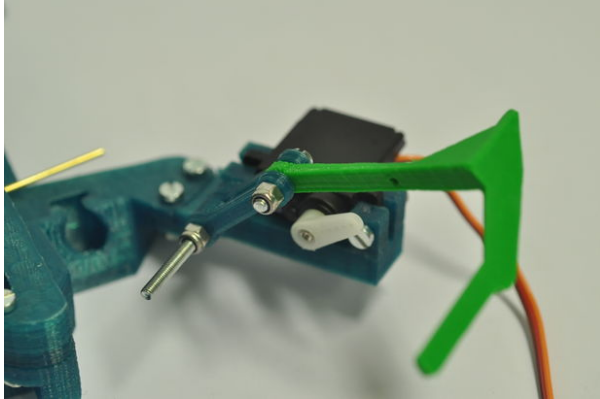


### Step 36: Almost done with the carriage...

At the top side of the arms, attach the bright green part, using a nut with nylon again. The sled should move freely.

Pull the paper clip though the wing of the motor and the bright green part and bend it to fix it, as shown in the picture

Now you have finished your first carriage piece! There is two of them, so one more to go...

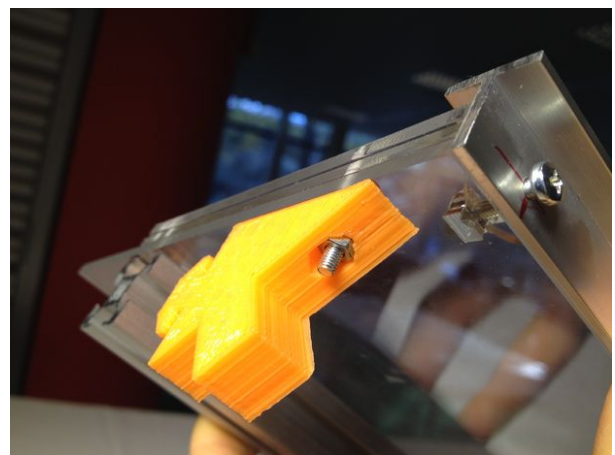
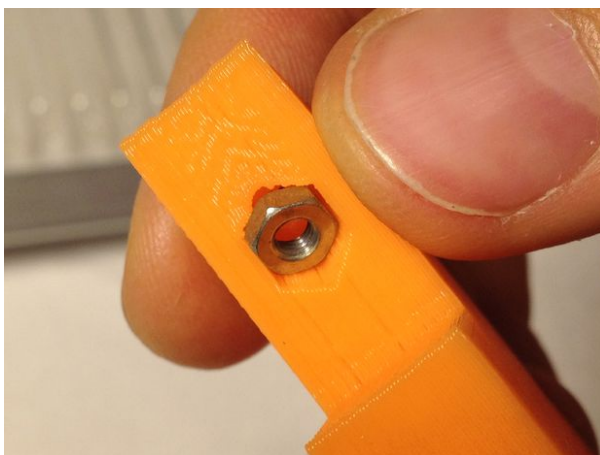


### Step 37: Make the 'legs' of the machine

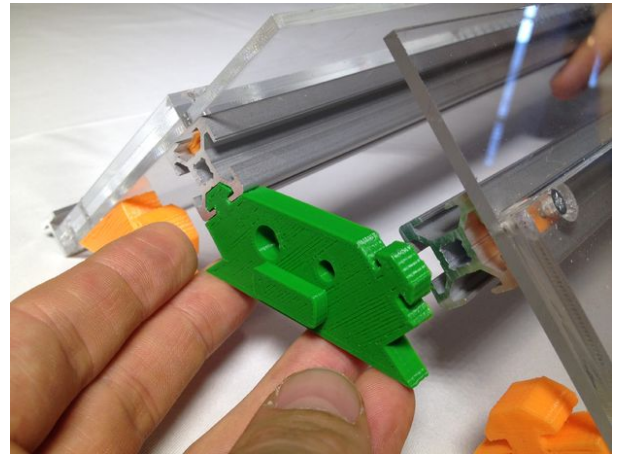
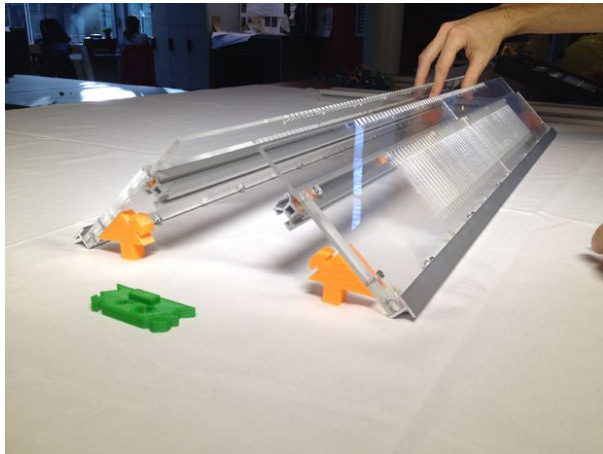
Take the four leg parts, place the nut with the help of the bolt.

Place them underneath the acrylic assembly

Slide in the 'space invader'



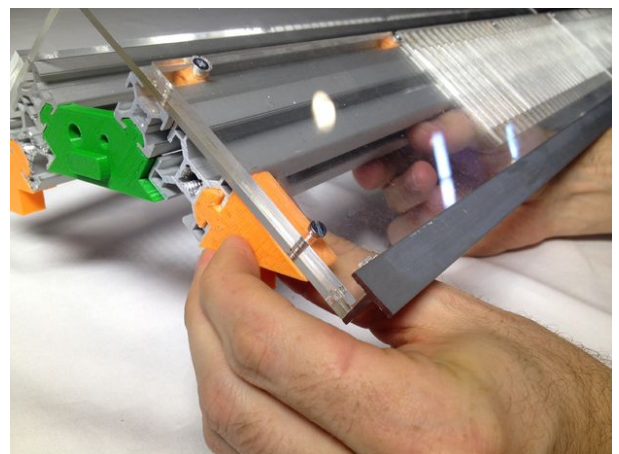
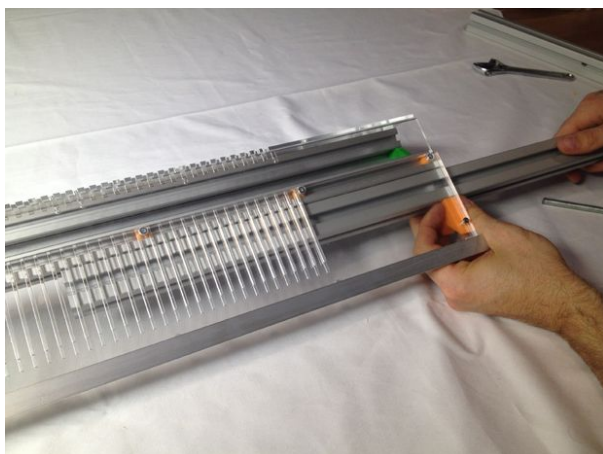
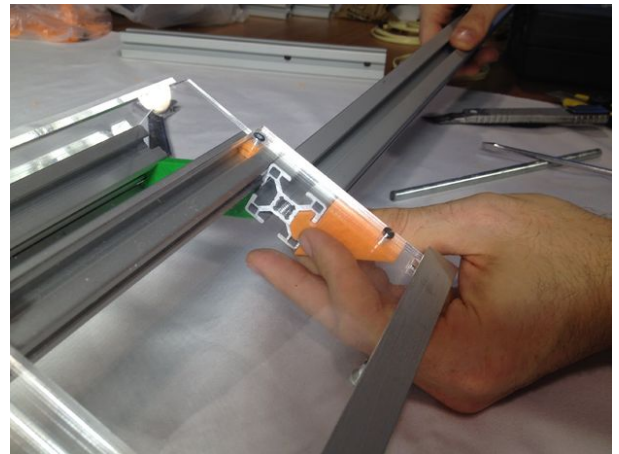
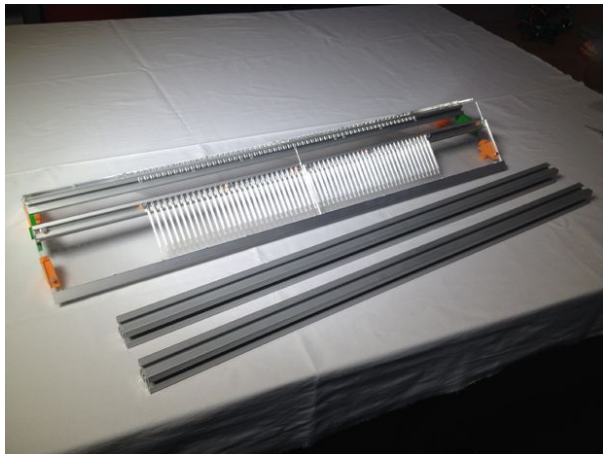
<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



### Step 38: Place the 3030 profiles

Take the 30 x 30 x 800 mm aluminum bars. Carefully slide the '3030' in, holding the 'leg' parts straight.

Do it really slowly slowly while holding the other 'leg' parts straight.



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



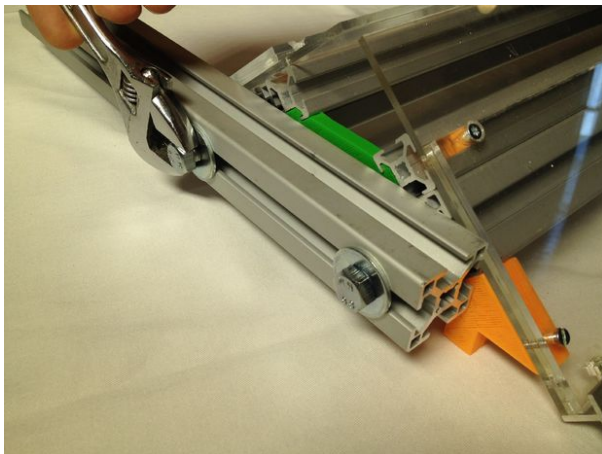
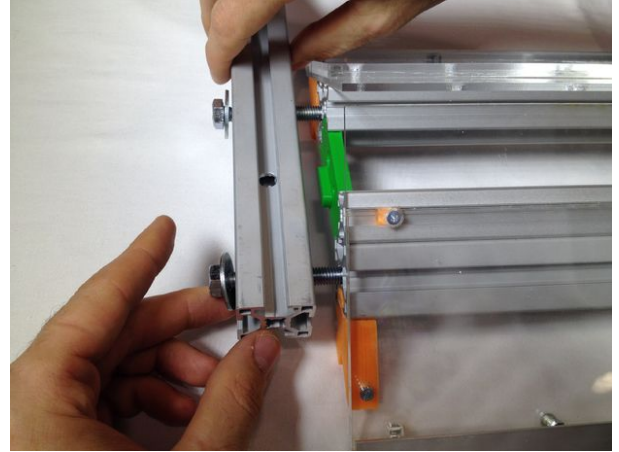


### Step 39: Place the short aluminum profiles

You need the 320 mm long profiles, 4 M8 washers and M8 x 50 bolts

Place the profiles carefully on the side of the machine, don't tighten them all the way.

Then get the clamps. It is recommended to have 2 people for this task: clamping the machine on the table.



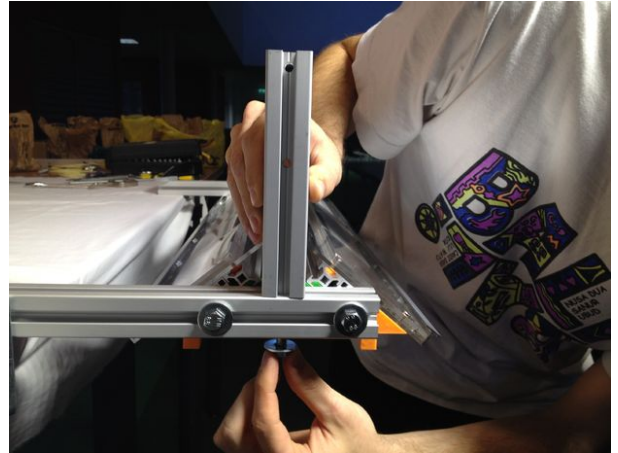
<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



#### Step 40: Placing the vertical short bars

You'll need the 164 mm short aluminum bars, 2 M8 x 50 bolts and M8 washers

Place the bar as indicated in the picture. Put it so the holes on the side are at the top on the outside.



#### Step 41: Prepare the yarn carrier

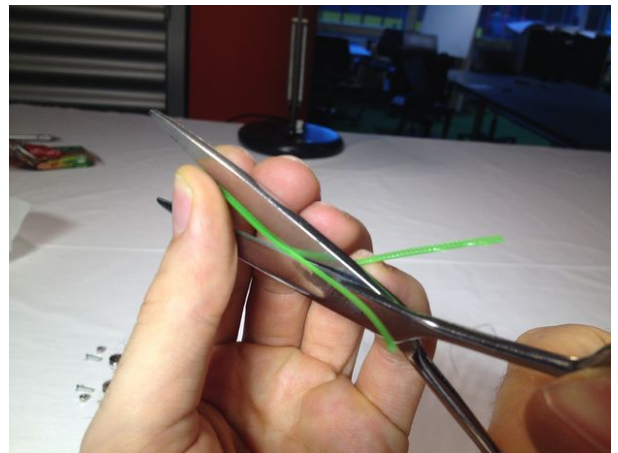
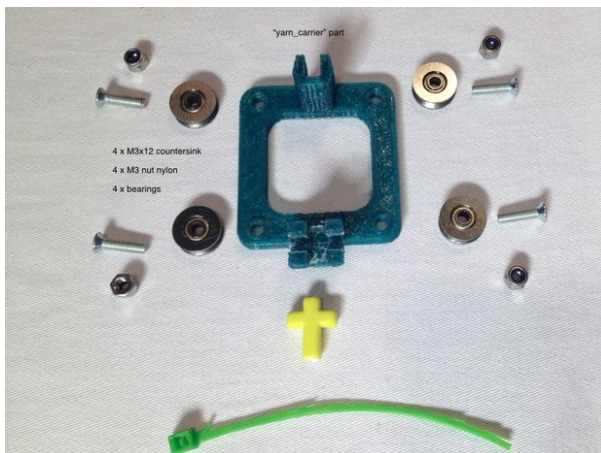
You need the yarn carrier part, 4 M3 nylon nuts, 4 M3x12 countersink bolts and 4 bearings, a cross shaped bead and a tie wrap.

Narrow the tie if yours is too thick.

Tighten the nut without blocking the bearing

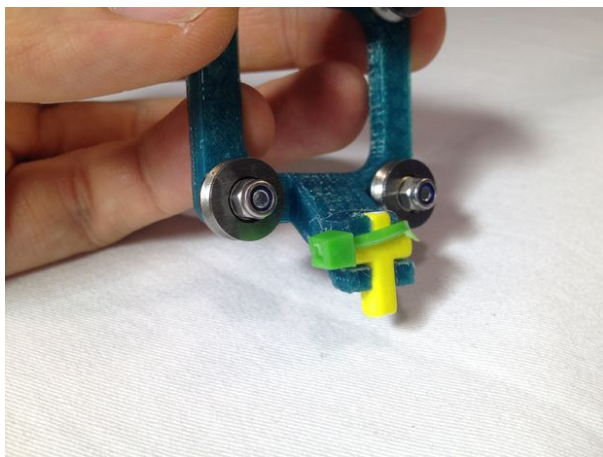
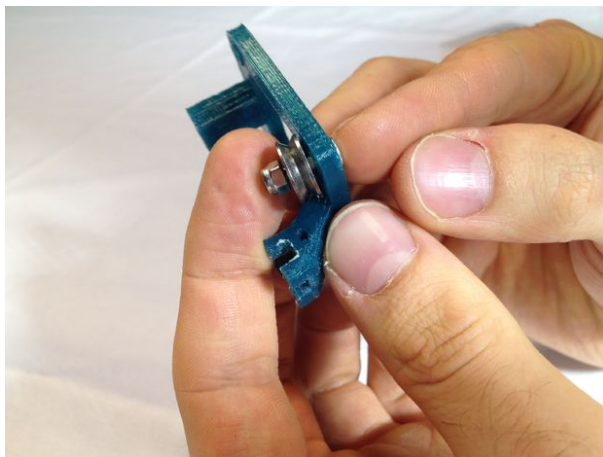
Smooth the cross shaped beads so the thread can move through easily

Snap the cross in, and use the zip tie carefully



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>

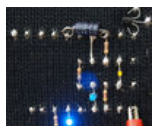




**Step 42:**

**Step 43:**

#### Related Instructables



**Knit a Working Circuit Board** by jseay



**Circular Knit Stretch Sensor** by Plusea



**Knit Touchpad** by Plusea



**The Mooshroom Hat** by Teisha



**Faux Tie Die Knit Lunch Bag** by loangb



**Text on fabric with Inkjet for KAY labels** by beth.barlow.777

<http://www.instructables.com/id/Building-the-Open-Knit-machine/>



## Comments

1 comments

[Add Comment](#)



**seamster** says:

This is really impressive! I enjoyed reading though and seeing the process of making this.

Nov 26, 2014. 11:11 AM [REPLY](#)

Do you have a video showing the machine in action, or additional info detailing how it is used? That would be great to include.



<http://www.instructables.com/id/Building-the-Open-Knit-machine/>


**Thomas Vailly**



## Thomas Vailly

Thomas Vailly's design practise is focused on processes and systems in product design. His mechanical engineer diploma at University of Technology of Compiègne triggered a fascination for processes and transformation of matter. This concern was combined to a reflexion on system of production and consumption whilst following the Masters programme at the Design Academy Eindhoven. His work explores themes of industrial production, mass consumption and production, commodification and transformation of substances.

Thomas Vailly is the co-curator of C-Fabriek (DDW12, Eindhoven), a design exhibition focused on new design processes and low tech production technic. In 2013, together with Ohaly and Fiebig, he won the Frame Moooi. Interior design award.



Puzzling and dazzling, 101,86 ? offers a new way to experience light. Treated with contemporary methods, the material possesses crystalline qualities that one normally only finds under a polarized microscop. The result is a product of wonder with multi-layered colors and a dynamic effect on light.

Almost like an up-scaled laboratory petri dish, this time object shows the research of a natural phenomenon, from mineral to minimal. Each product is composed numerous optical layers composing a unique color patterns. Therefore every piece has a unique pattern and color palette.

Technical data

220V or 110V

12V LED lighting

AA powered Seiko mechanism



















design without Design

Report

# design without Design

## 1. 개요

- 일정: 2016. 5. 3. ~ 6.30
- 장소: 토탈미술관
- 큐레이터: 신보슬
- 협업큐레이터: 이중한, 허대찬
- 코디네이터: 김은아, 우혜진, 정효섭, 전 마띠아스
- 인턴/도슨트: 이윤하
- 참여작가 및 디자이너(25):  
에우제니아 모르푸르고 Eugenia Morpurgo & 소피아 구겐베르거 Sophia Guggenberger,  
릴리쿰(박지은, 선윤아, 정혜린), 반 보 르-멘젤(Van Bo Le-Mentzel), 임도현,  
제로랩(김도현, 김동훈, 장태훈), 팽랩 서울(김동현, 윤미래, 정현구, 에두아르도 차모로 마틴 Eduardo Chamorro Martin), 샤롯데 페레 Charlotte Therre, 오픈 스트럭처 Open Structures(토마스 롬미 Thomas Lommée), 제라드 루비오 Gerard Rubio, 상명대(김현지, 랑성희, 신수민, 이다형, 이유림, 이한나, 장예지, 전희진, 최수빈)
- 협력: 릴리쿰, 상명대학교 생활예술학과(지도교수 곽철안), 아터테인, 팽랩서울
- 후원: 서울시

## 2. 진행일정

| 날짜        | 내용                                | 확인/담당 | 비고  |
|-----------|-----------------------------------|-------|-----|
| 2월 4일     | 디자이너 리스트 공유                       | 신보슬   | 이중한 |
| 2월 24일    | 디자이너 추가리스트 공유                     | 신보슬   | 이중한 |
| 3월 15일(화) | Thomas/Eumo_전시초청 메일 발송            | 신보슬   |     |
| 3월 17일(목) | Eumo_전시초청 승낙 메일 수령                |       |     |
| 3월 23일(수) | <b>기획팀 미팅 (1차)</b>                |       |     |
| 3월 28일(월) | 디자인 전시 리서치자료 수령                   | 신보슬   | 허대찬 |
| 3월 29일(화) | Thomas_전시초청 승낙 메일 수령              | 신보슬   |     |
|           | 디자인 전시 자료 추가 공유                   | 신보슬   | 이중한 |
| 4월 4일(월)  | Thomas_전시관련 추가 설명 메일 발송           | 신보슬   |     |
| 4월 5일(화)  | 제로랩/권아주_전시관련 설명 메일 발송             | 신보슬   |     |
| 4월 6일(수)  | Eumo_전시관련 추가 설명 메일 발송             | 신보슬   |     |
|           | Eumo&Sophia: AnOtherShoe_자료 수령    | 신보슬   |     |
| 4월 7일(목)  | <b>기획팀 미팅 (2차)</b>                |       |     |
|           | Thomas_전시 관련 문의 메일 수신             | 신보슬   |     |
| 4월 8일(금)  | 권아주, 제로랩 미팅                       | 신보슬   |     |
|           | Eumo_메일 발송                        | 이중한   |     |
| 4월 12일(화) | 추가 리서치자료 수신                       | 우혜진   | 이중한 |
|           | <b>기획팀 미팅 (3차)</b>                |       |     |
| 4월 13일(수) | Thomas_메일 회신                      | 신보슬   |     |
|           | Fab Lab Seoul 기획관련내용 메일발신         | 이중한   |     |
| 4월 14일(목) | <b>기획팀 미팅(4차) + 릴리쿰(선윤아), 임도원</b> |       |     |



|           |   |     |               |
|-----------|---|-----|---------------|
| 4월 18일(월) | 제로랩/권아주_전시장도면 및 1SQM도면 발송                                   | 우혜진 |               |
|           | How-to-make-an-Instructables-Restaurant.pdf 파일 수령           | 신보슬 | 제로랩(장태훈)      |
|           | 오픈스트럭처_전시관련 요청메일 발송   | 신보슬 |               |
| 4월 19일(화) | 꿈의가구 뉴스레터 및 회의자료 업로드  | 우혜진 |               |
|           | <b>기획팀 미팅 (5차)</b>  |     |               |
| 4월 20일(수) | 허대찬_꿈의가구 텍스트 수령   | 신보슬 | 허대찬           |
|           | 오픈스트럭처_답장 수령  | 신보슬 |               |
| 4월 21일(목) | <b>11:00 팹랩 미팅</b>  |     |               |
|           | <b>16:00 제로랩 미팅</b>   |     |               |
| 4월 22일(금) | 현수막용 정보 및 스케줄 일정 발송   | 신보슬 |               |
|           | 꿈의가구 벡터파일 수령  | 우혜진 | 이중한           |
|           | 현수막용 정보 및 스케줄 일정_1차 수정본 및 꿈의가구 벡터파일 발송                      | 우혜진 |               |
| 4월 23일(토) | 현수막용 정보 및 스케줄 일정_3차수정본 재발송                                  | 우혜진 |               |
|           | 꿈의가구 워크숍용 뉴스레터 텍스트 발송                                       | 신보슬 | 권아주           |
|           | 오픈스트럭처_문의 및 전시관련내용 발송                                       | 신보슬 | 오픈스트럭처        |
|           | ‘꿈의가구’워크숍_시뮬레이션   | 신보슬 |               |
| 4월 25일(월) | <b>17:00 심플프로젝트 미팅</b>                                      |     |               |
|           | 꿈의가구 부품 3D파일 수령   | 우혜진 | 이중한           |
|           | 꿈의가구 데이터 및 부품 3D파일 발송                                       | 우혜진 | 장태훈(제로랩)      |
|           | 자료공유 요청 및 승인  | 신보슬 | Design&People |
|           | 오픈스트럭처>관련 내용 회신 수령  | 신보슬 | 오픈스트럭처        |
| 4월 26일(화) | <b>11:00 기획팀 미팅 (5차)</b>                                    |     |               |
| 4월 27일(수) | <b>11:00 상명대 미팅</b>   |     |               |
|           | 디자인_크레딧 추가 및 로고관련안내   | 우혜진 | 권아주           |
|           | 디자인_시트지 파일 수령 및 견적요청  | 우혜진 | 권아주           |
|           | 디자인_배너 및 웹 이미지 수령   | 우혜진 | 권아주           |
|           | Euge>메일 수령 및 워크샵 관련 문의                                      | 신보슬 | 이중한           |
| 4월 28일(목) | Open Structures_자료 수령                                       | 신보슬 |               |
|           | 1. Euge&Sophia 여권사본 및 항공스케줄 정보 요청<br>2. Euge&Sophia>항공정보 수령 | 우혜진 | 이중한           |
|           | 레이디탑_항공권 요청   | 우혜진 | 레이디탑<br>(김숙정) |
|           | 오픈스트럭처>관련 내용 회신 수령  | 신보슬 | 오픈스트럭처        |
| 4월 29일(금) | <b>10:00 상명대 미팅</b>   |     |               |
|           | Thomas_Open Structures전시 관련 메일발송                            | 신보슬 | 이중한           |
|           | 1-SQM-House_자재 번역자료 수령                                      | 우혜진 | 이중한           |
|           | 릴리쿰>크레딧 수정 요청   | 우혜진 |               |

|           |   |     |                |
|-----------|---|-----|----------------|
|           | 오픈스트럭처 구성물 자료 업데이트                                    | 허대찬 |                |
|           | 디자인<br>1. 꿈의가구 뉴스레터 수령<br>2. 크레딧 수정_배너 및 포스터 수령       | 우혜진 | 권아주            |
|           | 심플프로젝트_제안서 수령   | 신보슬 | 심플프로젝트         |
| 4월 30일(토) | 오픈레서피 뉴스레터 텍스트 발송                                     | 신보슬 | 권아주            |
| 5월 2일(월)  | <b>10:00 팸랩서울 미팅</b>                                  |     |                |
|           | <b>17:00 심플프로젝트 미팅</b>                                |     |                |
|           | 오픈레서피 뉴스레터 파일 수령                                      | 우혜진 | 권아주            |
|           | 디자이너_신분증 및 통장사본 수령                                    | 우혜진 | 권아주            |
|           | 정효섭>전시장 도면(지하) 수정본 수령 및<br>서울팸랩(Eduardo Charmorro) 전달 | 우혜진 |                |
|           | <디자인없는디자인> 전체 홍보 메일링                                  | 우혜진 |                |
|           | 1-SQM-House 뉴스레터 파일 수령                                | 우혜진 | 권아주            |
|           | 오픈스트럭처>관련 내용 회신 수령                                    | 신보슬 |                |
| 5월 3일(화)  | 디자인 매핑 공유   | 허대찬 |                |
|           | 1-SQM-House 견적서 요청 및 수령<br>_목리, 폴인우드                  | 우혜진 |                |
|           | #1 꿈의 가구 워크샵_전체 메일링 발송                                | 우혜진 |                |
|           | 아터테인 견적서 요청 및 수령                                      | 우혜진 | 황희승            |
| 5월 4일(수)  | 10:00 심플프로젝트 미팅                                       |     |                |
|           | 1-SQM-House 뉴스레터 수정파일 수령                              | 우혜진 | 권아주            |
|           | Euge&Sophia항공권 발권                                     | 우혜진 |                |
|           | 이중한&샬럿떼에 프로젝트_디자인 파일 수령                               | 우혜진 | 이중한            |
| 5월 5일(목)  | <b>#1 꿈의가구 워크샵 진행(1)</b>                              |     |                |
|           | 이중한&샬럿떼에 statement 텍스트 수령                             | 우혜진 | 이중한            |
|           | 1-SQM-House_자재 관련 견적 요청                               | 신보슬 | 제로랩            |
|           | Thomas_프로젝트 관련 문의 및 회신                                | 신보슬 | 이중한            |
| 5월 6일(금)  | <b>#1 꿈의가구 워크샵 진행(2)</b>                              |     |                |
|           | 1-SQM-House 견적관련요청 회신                                 | 신보슬 | 제로랩            |
| 5월 7일(토)  | <b>#1 꿈의가구 워크샵 진행(3)</b>                              |     |                |
|           | 릴리쿰_전시동의서 수령 및 회람                                     | 허대찬 |                |
| 5월 8일(일)  | #1 꿈의가구 워크샵 진행(4)                                     |     |                |
|           | 심플프로젝트컴퍼니>회의내용 및 진행관련 협의부분 공유                         | 신보슬 | 심플 프로젝트<br>컴퍼니 |
|           | Euge&Sophia 숙박_신신호텔 명동 예약                             | 신보슬 |                |
|           | 1-SQM-House 추가 뉴스레터 수령                                | 우혜진 | 권아주            |
| 5월 9일(월)  | 릴리쿰_프로젝트 정리 문서 공유                                     | 허대찬 | 릴리쿰            |
|           | 팸랩서울_재료비 관련 견적서 수령                                    | 우혜진 | 황유선<br>(팸랩서울)  |
|           | #2 모바일키친_전체 메일링 발송                                    | 우혜진 |                |
|           | 오픈레서피_문타다스 레서피 전달                                     | 우혜진 | 이현진(심플)        |

|           |   |     |                                |
|-----------|---|-----|--------------------------------|
| 5월 10일(화) | 팍팍서울<br>1. 제작계획, 크레딧, 팸플렛 수령<br>2. 공간 및 프로그램 관련 문의_메일발송<br>3. 오픈니트 프린팅 시작 | 신보슬 | 황유선<br>(팍팍서울)<br>김동현<br>(팍팍서울) |
|           | 오픈스트럭처_PDF파일 및 동영상 링크 정보 수령   | 신보슬 | 오픈스트럭처                         |
|           | 1-SQM-House   | 우혜진 |                                |
|           | 1.폴인우드 자재 발주요청  |     |                                |
|           | 2.사업자등록증 및 통장사본 수령  | 우혜진 |                                |
|           | 3.견적서 수정요청 및 수령   |     |                                |
|           | #3 1-SQM-House_전체 메일링 발송  | 우혜진 |                                |
|           | 릴리쿰 설치_필요 구조물 및 배치안,<br>프로그램 진행안 업데이트 회람                                  | 허대찬 | 릴리쿰                            |
|           | 더미디엄(앨리스온) 사업자정보 및 통장사본 수령  | 허대찬 |                                |
| 5월 11일(수) | 1차 보도자료 발송(오미환 기자)  | 신보슬 | 오미환 기자                         |
|           | 전시장 1층 프린터 설치   |     |                                |
|           | 팍팍서울_레이저 커터 사양 관련 문의  | 우혜진 | 황유선                            |
|           | 1-SQM-House_플라스틱 보양지 주문   | 우혜진 |                                |
|           | 1-SQM-House_폴인우드 세금계산서 요청   | 우혜진 |                                |
|           | 오픈레서피_신제현 작가 레서피 수령   | 신보슬 |                                |
| 5월 12일(목) | Euge&Sophia_일정조율 및 필요물품 확인 메일 요청 및<br>회신수령                                | 이중한 |                                |
|           | USB dead drops, openknit 자료 수령  | 신보슬 | 장태훈                            |
| 5월 13일(금) | 이중한&샬럿_3D프린팅 파일 전달  | 이중한 | 팍팍서울                           |
|           | 1-SQM-House 집만들기 자재 도착  | 우혜진 |                                |
|           | 제로랩 설치  | -   |                                |
| 5월 14일(토) | 이중한&샬럿 설치   | -   |                                |
|           | #2 모바일키친 오픈레서피-오픈(문타다스)   | 우혜진 |                                |
| 5월 15일(일) | #3 1-SQM-House 집만들기 워크샵(1)  |     |                                |
|           | #3 1-SQM-House 집만들기 워크샵(2)  | 우혜진 |                                |
| 5월 17일(화) | 오픈레서피_신제현 레서피 스토리 수령  | 신보슬 |                                |
|           | Euge&Sophia_사진파일 설치관련 문의 및 숙박정보 안내<br>메일 발송                               | 우혜진 |                                |
|           | Euge&Sophia_디스플레이 자료수령  | 우혜진 |                                |
|           | AnOtherShoe뉴스레터 텍스트 자료 발송   | 우혜진 | 권아주                            |
| 5월 18일(수) | #2 모바일키친 오픈레서피-오픈(신제현)  |     |                                |
|           | AnOtherShoe뉴스레터 파일 수령   | 우혜진 | 권아주                            |
|           | 1-SQM-House_폴인우드 세금계산서 수령   | 우혜진 |                                |
|           | 릴리쿰_프로그램 일정 및 자료 공유   | 허대찬 |                                |
| 5월 20일(금) | 오픈레서피_김도영 실장님 레서피 수령  | 신보슬 |                                |
|           | Euge_프로그램 진행 일정안내   |     |                                |
|           | 팍팍_설치(1) Open Structures  |     |                                |

|           |  |                   |                    |
|-----------|--|-------------------|--------------------|
| 5월 21일(토) | #MakersMovement상명대x임도원 워크샵(1)  | 우혜진               |                    |
|           | 오픈레서피_에바알머슨 레서피 전달   | 우혜진               | 이현진(심플)            |
| 5월 23일(월) | 팝랩_드론워크샵 일정 공유   | 우혜진               |                    |
|           | 팝랩_설치(2) 101 Modules   |                   |                    |
|           | #5노동은 로봇에게? 워크샵 뉴스레터 텍스트 자료 발송   | 우혜진               | 권아주                |
| 5월 24일(화) | 신제현작가_클로징파티 퍼포먼스 관련 자료 수령  | 신보슬               |                    |
|           | 임도원 작가_3D프린터 푸르사2D벡터파일 수령 및 전달(>권아주)   | 우혜진               | 임도원                |
|           | 팝랩_드론워크샵 뉴스레터 이미지 수령   | 우혜진               |                    |
|           | Euge_이메일 회신 및 배송정보 안내 수령   | 우혜진               |                    |
|           | 오픈레서피_에바알머슨 약력 수령  | 신보슬               |                    |
|           | 팝랩_설치(3) 101 Modules   | 우혜진               | 황유선                |
|           |  |                   |                    |
| 5월 25일(수) | #2 모바일키친 오픈레서피-오픈(에바알머슨)   |                   |                    |
|           | 릴리쿰_자료 업데이트 및 공유   | 허대찬               |                    |
|           | 오픈레서피<br>1. 정승 작가 프로필사진요청 및 수령<br>2. 정승작가 레서피 관련 자료 전달   | 우혜진<br>우혜진        | 이현진(심플)<br>이현진(심플) |
|           | 팝랩_24일 설치사진 수령   | 우혜진               | 황유선/<br>Eduardo    |
| 5월 26일(목) | 팝랩_설치(4) 101 Modules(Acrylic)  | 우혜진               | 황유선                |
|           | #5노동은 로봇에게? 뉴스레터 파일 수령   | 우혜진               | 권아주                |
|           | 릴리쿰#6,#7, 팝랩#8 뉴스레터 텍스트 및 사진(디자인)자료 발송   | 우혜진               | 권아주                |
| 5월 27일(금) | #4 AnOtherShoe_전체 메일링 발송   | 우혜진               |                    |
|           | #5,8 뉴스레터 수정 요청 및 파일 수령  | 우혜진               | 권아주                |
|           | 팝랩_오픈스트럭처 3D프린팅 파일 수령  | 우혜진               | 황유선                |
| 5월 28일(토) | #MakersMovement상명대x임도원 워크샵(2)  | 우혜진               |                    |
|           | dwD_타임라인 정리  | 우혜진               |                    |
| 5월 30일(월) | 릴리쿰 뉴스레터#6 드로잉 수령 및 권아주 디자이너에게 전달  | 우혜진               | 선윤아                |
|           | 오픈레서피_#1 문타다스 트레이 파일 수령  | 우혜진               | 이현진(심플)            |
|           | #6 전자요리 오픈키친 전제 메일링 발송   | 이윤하               |                    |
| 5월 31일(화) | #4 AnOtherShoe<br>1. 영문 텍스트 전달 및 디자인 수령<br>2. 신발 및 Sophia 여권사본(고화질) 수령<br>3. 이메일 회신_영문 뉴스레터 첨부 | 우혜진<br>우혜진<br>우혜진 | 권아주                |
|           | #6 전자요리 오픈키친 워크샵 참가자 리스트 파일 수령   | 우혜진               | 선윤아                |
|           | #7 개인의 생산<br>1. 뉴스레터 수정 텍스트 및 스케치 이미지 파일 전달<br>2. 뉴스레터 수령 및 전달                                 | 우혜진<br>우혜진        | 권아주<br>정혜린         |
|           | 오픈레서피 보도자료 초안 작성   | 우혜진               | 신보슬                |
|           | #8드론만들기워크샵 전체 메일링 발송   | 이윤하               |                    |
|           |  |                   |                    |
|           |  |                   |                    |



|           |   |     |               |
|-----------|---|-----|---------------|
| 6월 1일(수)  | <b>#2 모바일키친 오픈레서피-오픈(정승)</b>              | 우혜진 |               |
|           | 제로랩<br>1. 모바일키친 제작도면 수령 및 공유<br>2. 바이오 요청 | 우혜진 | 제로랩           |
|           | 오픈레서피 보도자료 최종 컨펌                          | 우혜진 | 신보슬           |
|           | 오픈레서피_노세환 고추잡채 드로잉 수령                     | 우혜진 | 신보슬           |
| 6월 2일(목)  | 오픈레서피 보도자료 발송                             | 우혜진 | 정효섭           |
|           | 오픈스트럭처_인보이스 수신                            | 신보슬 | Thomas Lommee |
| 6월 3일(금)  | 오픈레서피 보도자료_심플프로젝트 회람                      | 우혜진 |               |
| 6월 4일(토)  | #MakersMovement상명대x임도원 워크샵(3)             |     |               |
| 6월 5일(일)  | Lunch with Artist_정승                      |     |               |
|           | 오픈레서피_김도균 작가님 자료 전달                       | 우혜진 | 이현진           |
| 6월 7일(화)  | 심플프로젝트 로고 수령 및 '푸드 콘텐츠 기획' 회사로 수정 부탁      |     |               |
|           | 도록 관련 Bio 수령<br>1. 이중한&샐럿<br>2. 팸랩서울      | 우혜진 |               |
|           | 3D프린터_미술관 스태프 인물 파일 수령                    | 우혜진 | 임도원           |
|           | 오픈니트 도면 수령                                | 우혜진 | 황유선           |
|           | 오픈레서피_김도균 작가 레서피 스토리 수령 및 전달              | 우혜진 | 이현진           |
|           |   |     |               |
| 6월 8일(수)  | <b>#2 모바일키친 오픈레서피-오픈(김도균)</b>             |     |               |
|           | 오픈레서피_김도균 작가 디자인자료 수령                     | 우혜진 | 이현진           |
|           | 아트인컬처 보도자료 요청 건 자료발송                      | 우혜진 | 황영희 기자        |
|           | Modules101, Modular Drone 도면 수령           | 우혜진 | 황유선           |
|           | Euge_신발만들기 워크샵 참가인원 안내                    | 우혜진 |               |
| 6월 9일(목)  | 오픈레서피_노세환 레서피 스토리 자료 발송                   | 우혜진 | 이현진           |
| 6월 11일(토) | Lunch with Artist_김도균                     |     |               |
|           | 이스라엘 일러스트레이터 워크샵 뉴스레터 디자인 요청              | 김은아 | 권아주           |
| 6월 14일(화) | 드론제작워크샵 뉴스레터 수정 요청                        | 우혜진 | 권아주           |
|           | Eugenia & Sophia 입국                       | 정효섭 |               |
| 6월 15일(수) | <b>#2 모바일키친 오픈레서피-오픈(노세환)</b>             |     |               |
|           | 노세환 작가 레서피 디자인 파일 수령                      | 우혜진 | 이현진           |
|           | 노세환 작가 포트폴리오 수령                           | 우혜진 | 노세환           |
|           | 라이브페인팅 뉴스레터 텍스트 및 이미지 파일 발송_디자인 요청        | 김은아 | 권아주           |
| 6월 16일(목) | <b>#4 AnOtherShoe 비공개워크샵</b>              | 우혜진 |               |
|           | Euge&Sophia_성수동 방문, 가족 및 술 구입             | 우혜진 |               |
| 6월 17일(금) | <b>#4 AnOtherShoe 워크샵(1)</b>              | 우혜진 |               |
|           | dwD_수정포스터 수령                              | 신보슬 |               |
| 6월 18일(토) | <b>#4 AnOtherShoe 워크샵(2)</b>              | 우혜진 |               |
|           | <b>#10 하노프피벤 워크샵</b>                      | 김은아 |               |

|           |   |            |     |
|-----------|---|------------|-----|
| 6월 19일(일) | Lunch with Artist_노세환                                 | 신보슬        |     |
|           | dwD_클로징파티 이미지 수령                                      | 신보슬        |     |
| 6월 20일(월) | Euge&Sophia<br>1. 팽랩서울 방문<br>2. 보딩패스 요청               | 우혜진<br>우혜진 | 황유선 |
| 6월 21일(화) | Euge&Sophia 출국  |            |     |
| 6월 21일(화) | 오픈레서피_임수미 작가 자료 수령 및 전달                               | 우혜진        |     |
| 6월 22일(수) | #2 모바일키친 오픈레서피-오픈(임수미)                                |            |     |
| 6월 26일(일) | 클로징파티<br>- 신제현 퍼포먼스 5시<br>- 임대식 등갈비 4시<br>- 드론 드로잉 2시 |            |     |
| 6월 28일(화) | 전시장 철수  |            |     |
|           | 정고요나 라이브 페인팅 철수                                       |            |     |
|           | 레이저커터 반송(릴리쿰)   |            |     |
|           | 이중환 꿈의가구 킷 배송   |            |     |
| 7월 3일(일)  | 3D 프린터 워크숍  |            |     |

### 3. 관계자 연락처

| 구분    | 이름 / 직함                           | 이메일                             | 비고                    |
|-------|-----------------------------------|---------------------------------|-----------------------|
| 기획    | 신보슬<br>/책임큐레이터                    | curator@totalmuseum.org         |                       |
| 기획    | 우혜진<br>/코디네이터                     | hyejin.total@gmail.com          |                       |
| 기획    | 허대찬<br>/협업큐레이터                    | daechan.huh@gmail.com           |                       |
| 기획    | 이중환<br>/협업큐레이터                    | joonghanlee@gmail.com           | studio-homunculus.com |
| 교수    | 곽철안 /상명대<br>생활예술학과                | info@chulankwak.com             | www.chulankwak.com/   |
| 코디네이터 | 전마띠아스<br>/ 상명대<br>생활예술학과          | matiasjeon12@naver.com          | 임도원x상명대<br>워크샵 진행보조   |
| 참여작가  | 선윤아 /릴리쿰                          | reliquum2f@gmail.com            | reliquum.co.kr        |
|       | 정혜린 /릴리쿰                          | reliquum2f@gmail.com            | reliquum.co.kr        |
| 참여작가  | 김동현/팽랩서울                          | astronoize@tideinstitute.org    | www.fablab-seoul.org/ |
| 참여작가  | Eduardo<br>Chamorro<br>/ 팽랩서울 리서처 | fabinstructor@tideinstitute.org | www.fablab-seoul.org/ |
| 참여작가  | 황유선 / 팽랩서울                        | yersundanny@tideinstitute.org   | www.fablab-seoul.org/ |

|      |   |  |   |
|------|---|--|---|
| 협력   | 이상재 /<br>심플 프로젝트<br>컴퍼니                   | sangjae.lee@simpleproject.co.kr                        | simpleproject.co.kr   |
| 협력   | 이현진 /<br>심플 프로젝트<br>컴퍼니                   | leejin@simpleproject.co.kr                             | simpleproject.co.kr   |
| 참여작가 | Eugenia<br>Morpurgo                       | eumorpurgo@gmail.com                                   | www.eumo.it   |
| 참여작가 | Sophia<br>Guggenberger                    | hello@sophiaguggenberger.com                           | 1) www.sophiaguggenberger.com/<br>2) Issuu issuu.com/sophiaguggenberger |
| 1차연락 | Thomas Vailly                             | thomas@studiothomasvailly.com                          | www.vailly.com/   |
| 참여작가 | Charlotte<br>Therre                       | therrecharlotte@gmail.com                              | charlottetherre.com/  |
| 참여작가 | Van Bo Le<br>Mentzel                      | prime@web.de   | www.hartzivmoebel.blogspot.nl/p/one-<br>sqm-house.html                  |
| 참여작가 | Open<br>Structures<br>(Thomas<br>Lommée ) | info@openstructures.net<br>(thomas@openstructures.net) | info@openstructures.net   |
| 참여작가 | Open Knit<br>(Gerard Rubio)               | info@openknit.org                                      | openknit.org/   |
| 참여작가 | 임도원                                       | imdoone79@ gmail.com                                   |   |
| 디자이너 | 권아주                                       | ahjukwon@gmail.com                                     | www.ahjukwon.com/   |
| 참여작가 | 장태훈 /제로랩                                  | zero@zero-lab.co.kr                                    | www.zero-lab.co.kr/   |
| 업체   | 이상훈 /<br>대한기업(바퀴)                         |  |   |
| 업체   | 하나볼트 /볼트                                  |  |   |
| 업체   | 이준표 /부국상사                                 | bukuksangsa@hanmail.net                                |   |
| 업체   | 임진택 /부직포백                                 | meill777@naver.com                                     |   |
| 업체   | 강민성 /<br>한성포장비닐상사                         | kyoju2000@naver.com                                    |   |
| 업체   | 김주홍 / (주)세운툴                              | saewoon0989@naver.com                                  |   |
| 업체   | 박종웅 /<br>폴인우드(목재)                         | skypju@naver.com                                       | fallinwood.com/   |
| 업체   | 이용 /<br>예카(신발가죽)                          | garamsankr@yahoo.co.kr                                 | 성수동 성수2가 3동 316-60 예카빌딩   |
| 업체   | 동문상사                                      |  |   |
| 업체   | 대진 DMS 몰드 /<br>아웃솔(창)                     |  | 고무, TR, PU, EVA스폰지, RABALON, 몰드창<br>전문                                  |
| 업체   | 아성상사 /<br>아웃솔(말창)                         |  |   |



# design without Design Closing Party

2016.6.26. Sun 12 – 6pm

design without Design  
클로징 파티 안내

1. 안쓰는 물건 가져오셔서 물물교환/판매 가능합니다.
2. 프로젝트 기간중 제작한 결과물 구매 가능합니다.
3. 음료/다과/주류 반입 환영합니다.
4. 12시부터 <오픈레스피 #7. 임수미의 원팬 뉴욕 떡볶이> 운영합니다.
5. 5시에는 신제현 작가의 <재난 레시피 퍼포먼스 - 낙지 비빔면>이 진행됩니다.

TOTAL MUSEUM  
OF CONTEMPORARY ART