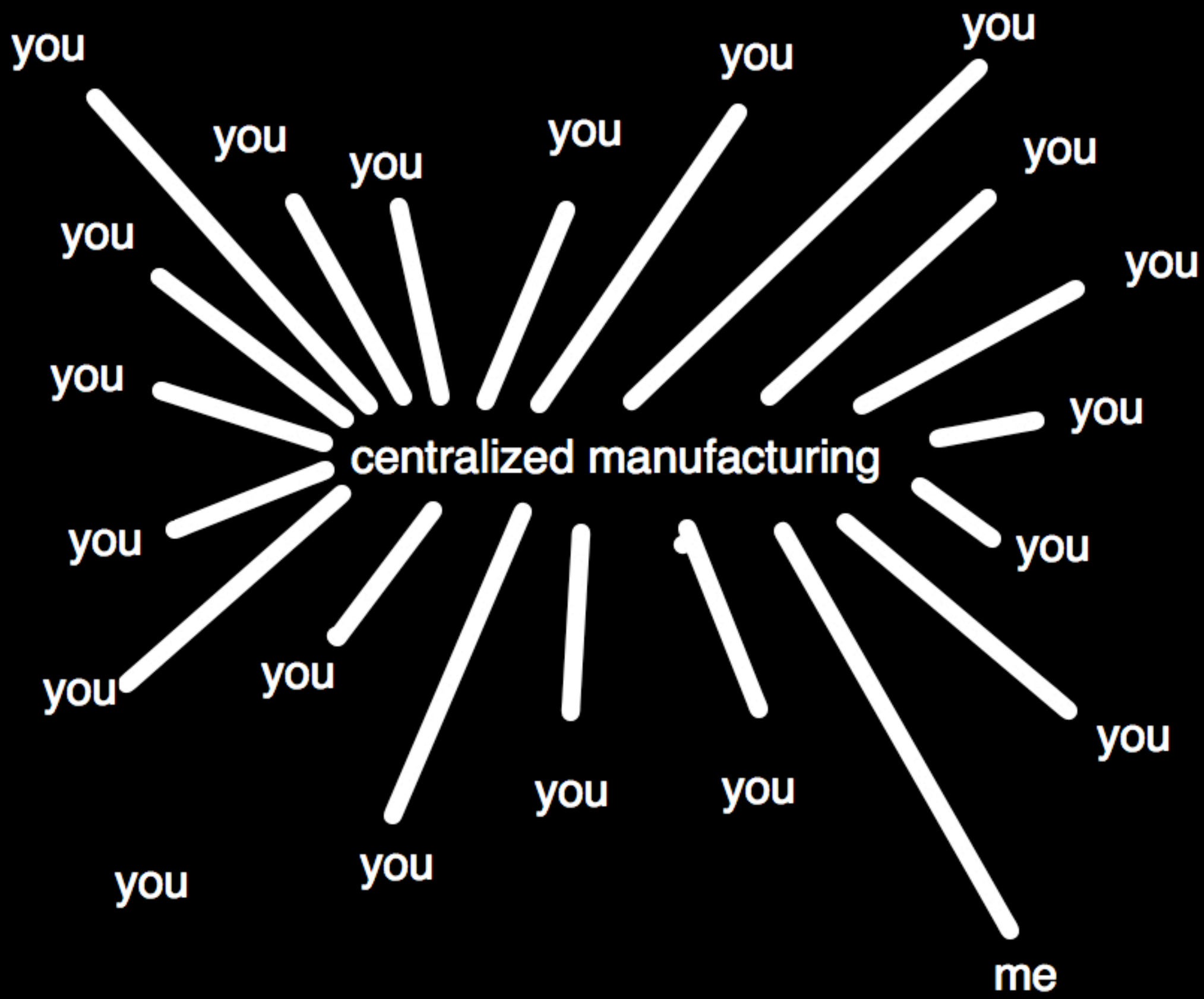
Rapid Prototype Your Life

Bre Pettis

Disclaimer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centralized manufacturing
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Consumer
Fueled Capitalism
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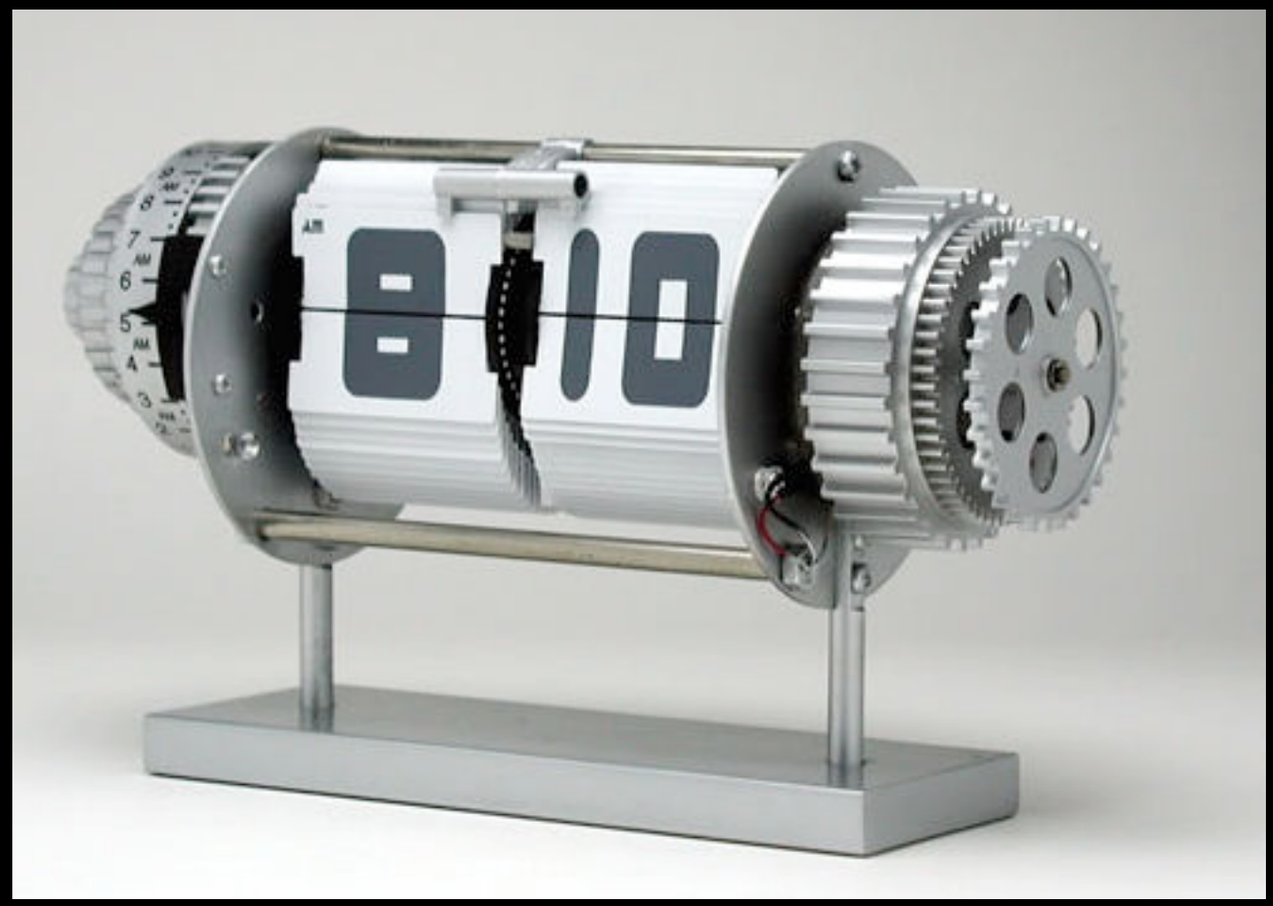
Manufacturing.



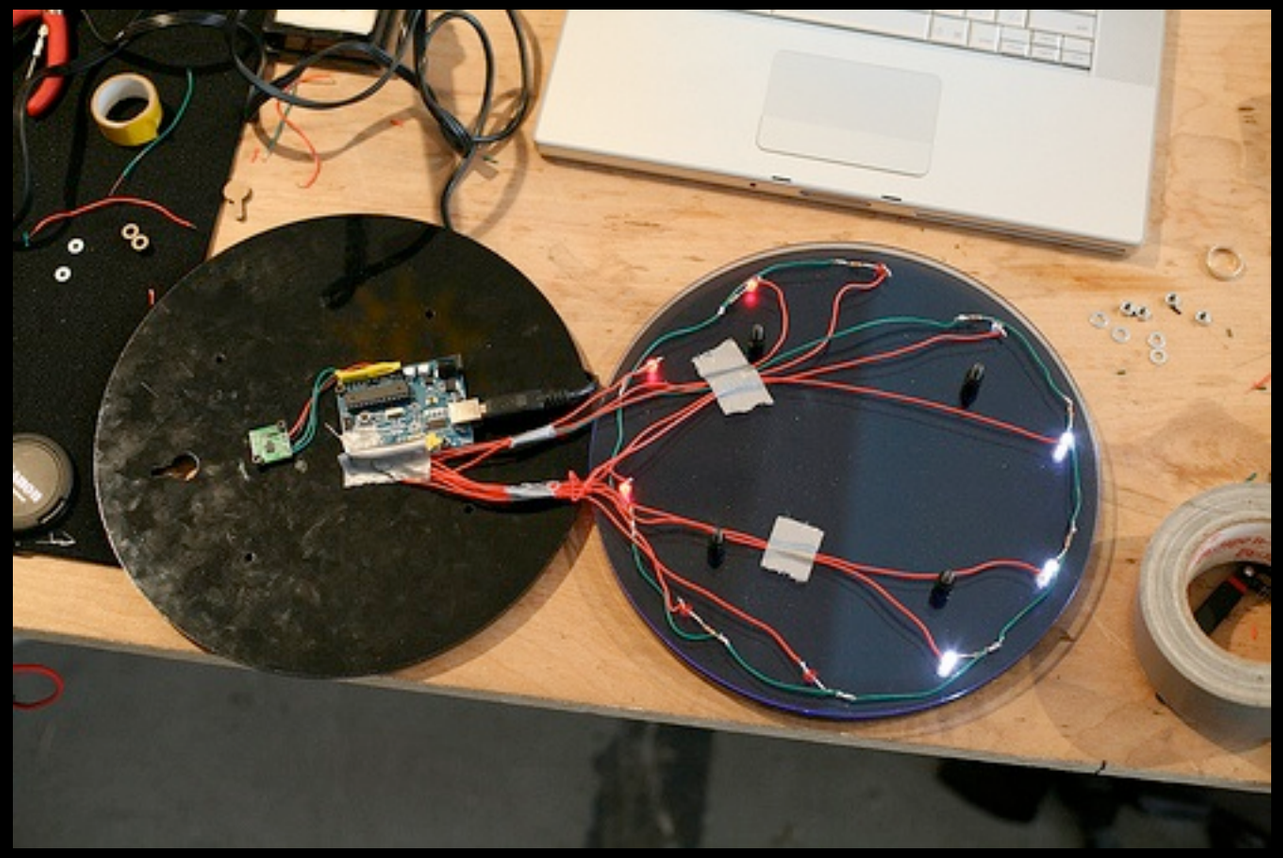
I want a cool clock.

I check my options for clocks made by corporate manufacturers.

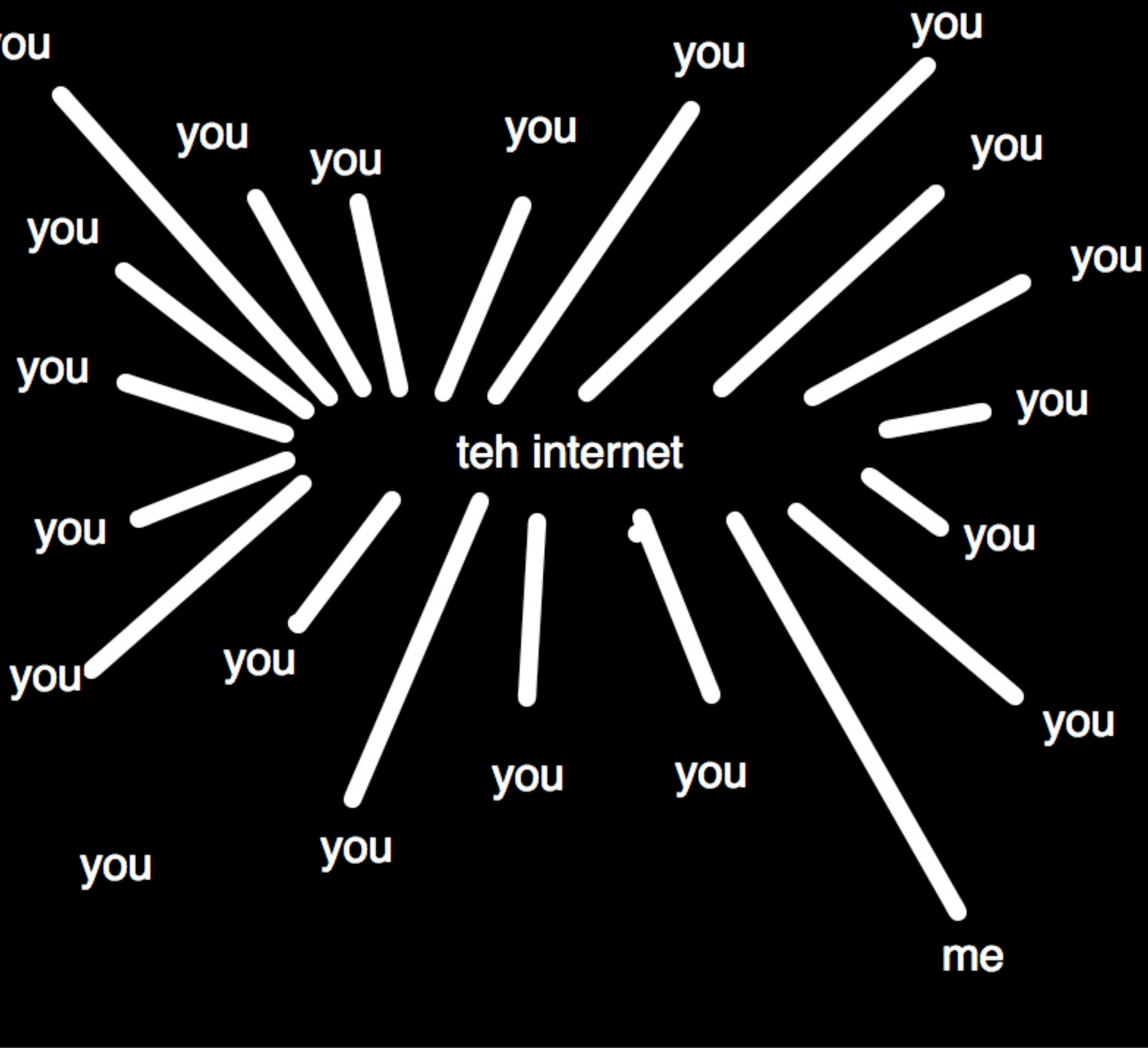
I find the bomba designed by Will Vanen Vos. I buy it.

Alternate Reality

Justin Day's Binary Clock



http://wiki.nycresistor.com/wiki/Time_To_Hack_Binary_Clock


you
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you

What was the last thing I made?

What was the last thing that I bought from someone who made it?

Second hand?

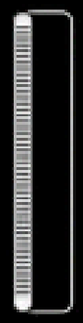
Barter?

Some of us already do this.

craigslist, ebay, etsy, personal online shops, flea markets

What would it be like to be on an island and have to make everything?

On demand custom manufacturing of things.



Eric Michaud's Fork

The idea of rapid prototyping and home based manufacturing is really different from the dominant corporate manufacturing model.

Bonus Points:
(fun, pride, learn,
discover, customize)

More Bonus Points:
You can sell it or give it away and see it made and possibly improved by others

Moving right along...

Digital Design

Design To Object

- Inkscape, Qcad, Illustrator, Rhino, Art of Illusion, Corel Draw.
- Magic wand (make a design to go from your head to a digital file.)
- (note: tell about Jared Tarbell's workflow of flash to corel draw.)

Quick Inkscape Tutorial (let's make something to lasercut)

- Inkscape.org
- page size, default units, grid
- the line tool
- making a shape
- creating a 1”x1” square to make sure that the import scales correctly.

Source Code
(Design Files)
Thingiverse

Look, a monkey!

HTTP://BREPETTIS.COM

MK-1 FLATPACK MONKEY

MEEP!

CHICKEN FOOT NOT INCLUDED

CRAFTED WITH A LAZZZZZZZZOR!

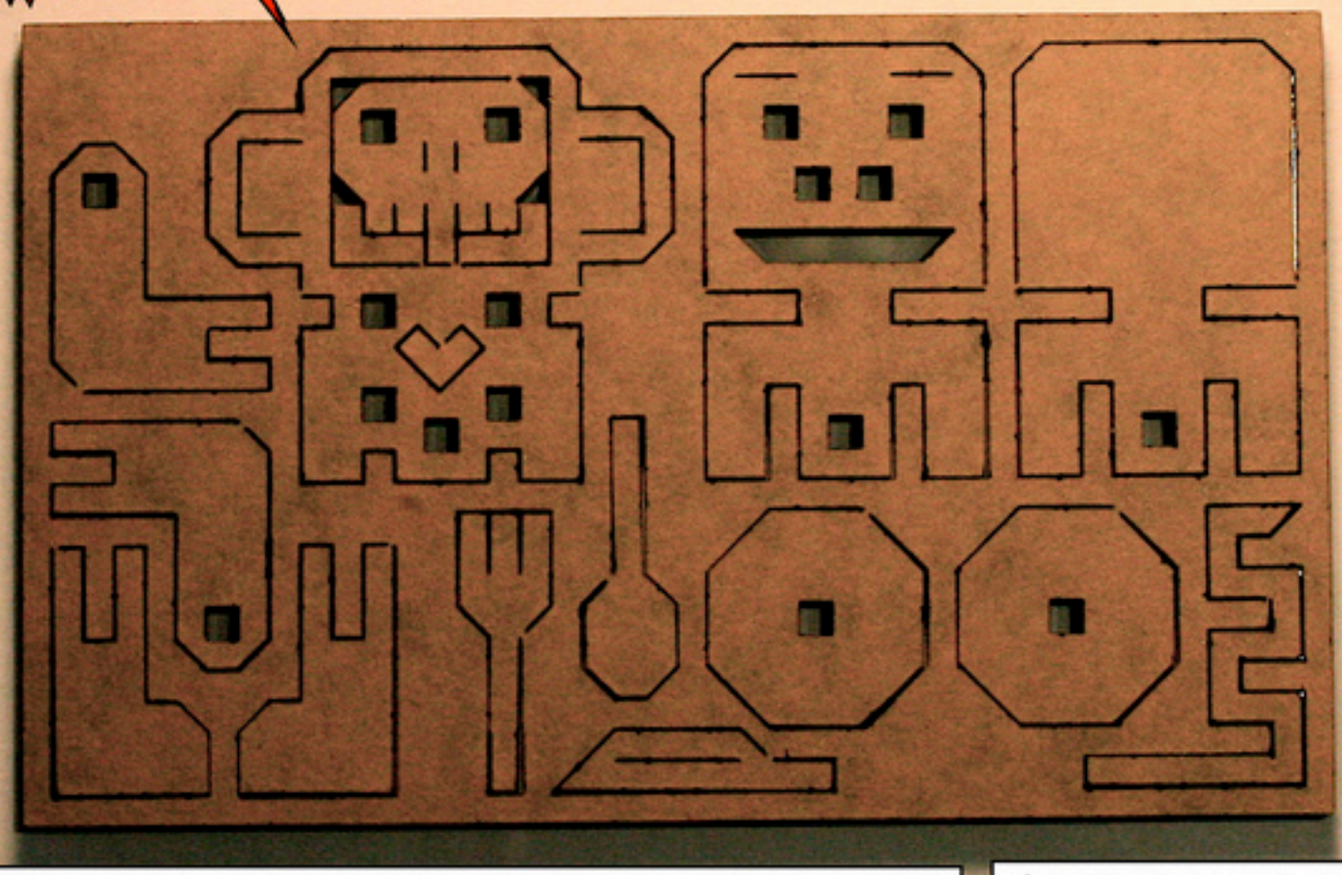
LOOK INTO THE MONKEY'S HEAD TO SEE ITS SKULL!

SMALL PARTS - NOT FOR SMALL CHILDREN!

BRE PETTIS

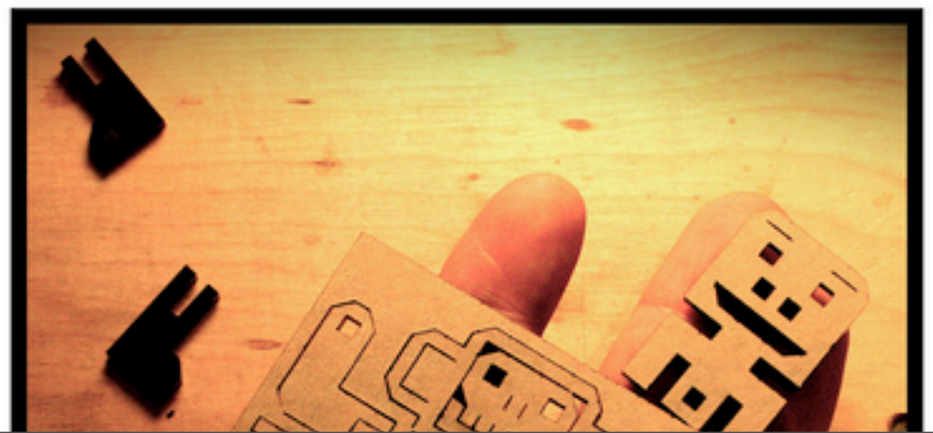
CONGRATULATIONS

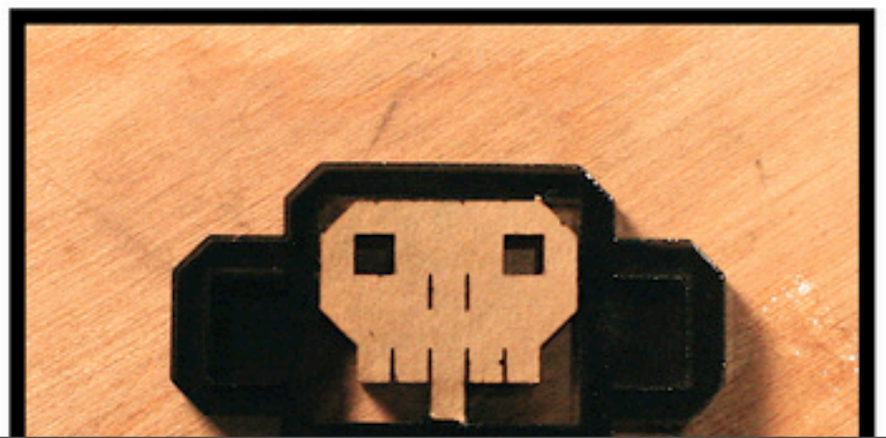
YOU ARE THE PROUD PROTECTOR OF THE BRAVE MK-1 FLATPACK MONKEY

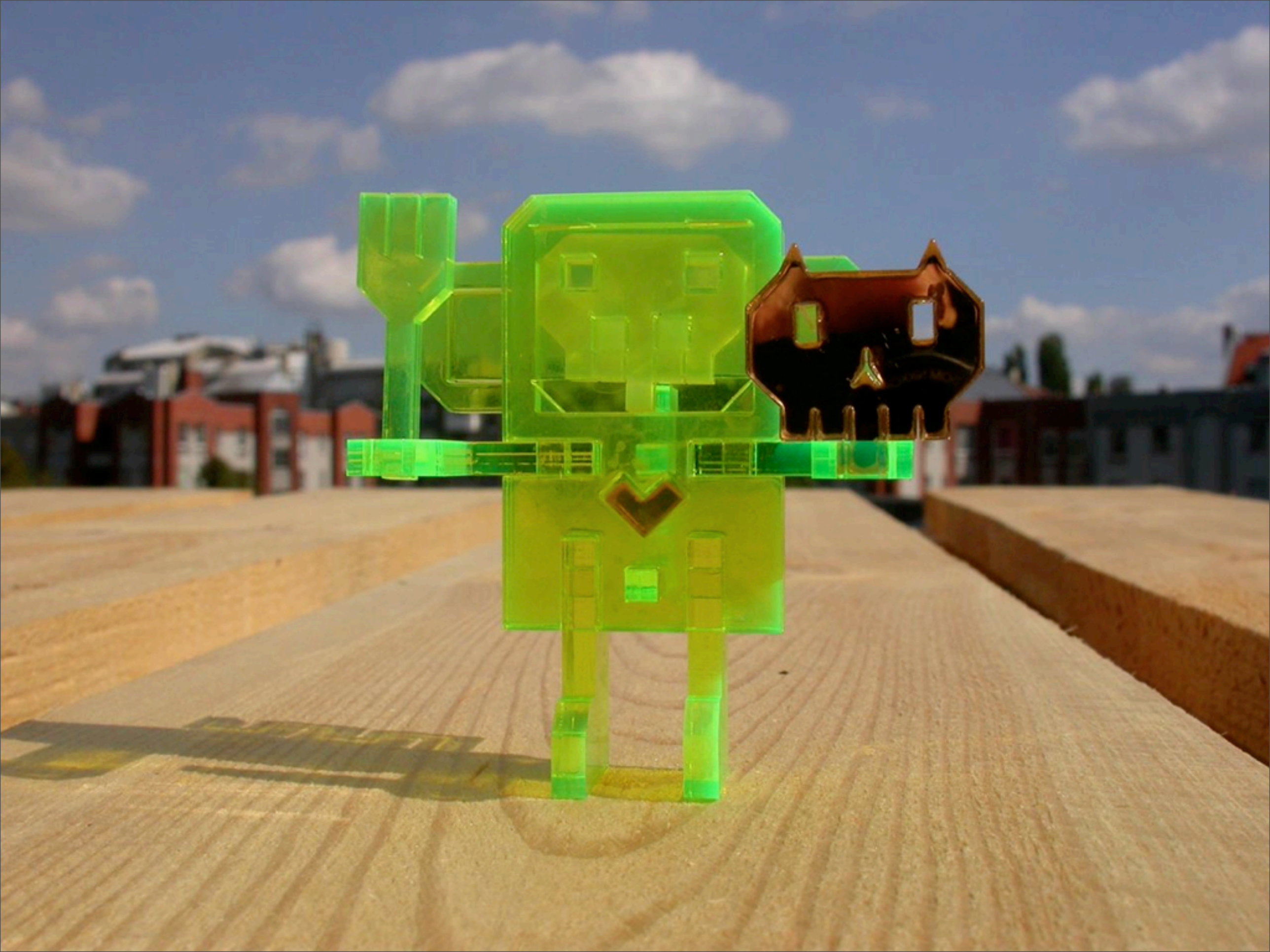


ALL YOU NEED TO PUT IT TOGETHER IS THE MK-1 FLATPACK, YOUR FINGERS AND A LITTLE SUPERGLUE* IF YOU WANT TO MAKE THINGS PERMANENT.

*SUPERGLUE CAN ALSO BE HELPFUL IF YOU BREAK THE FRAGILE BITS.







A little rapid prototype history

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N005G81X48000M51
N006G81Y04000M51
N007G81Y02000M51
N008G81Y00000M51
N009G80X00000Y00000
N010M02
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H001.....HAUPTSATZ

G81.....BOHRZYKLUS

X00000....KOORDINATEN POSITIONEN

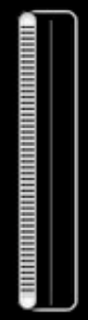
M51.....FUNKTION FÜR SPINDELVORSCHUBBE

MIT EILGANG BIS SICHERHEITSEBENE (NOCKE
SICHERHEITSEBENE BIS BOHRUNGSTIEFE MIT

G80.....BOHRZYKLUS (G81) LÖSCHEN

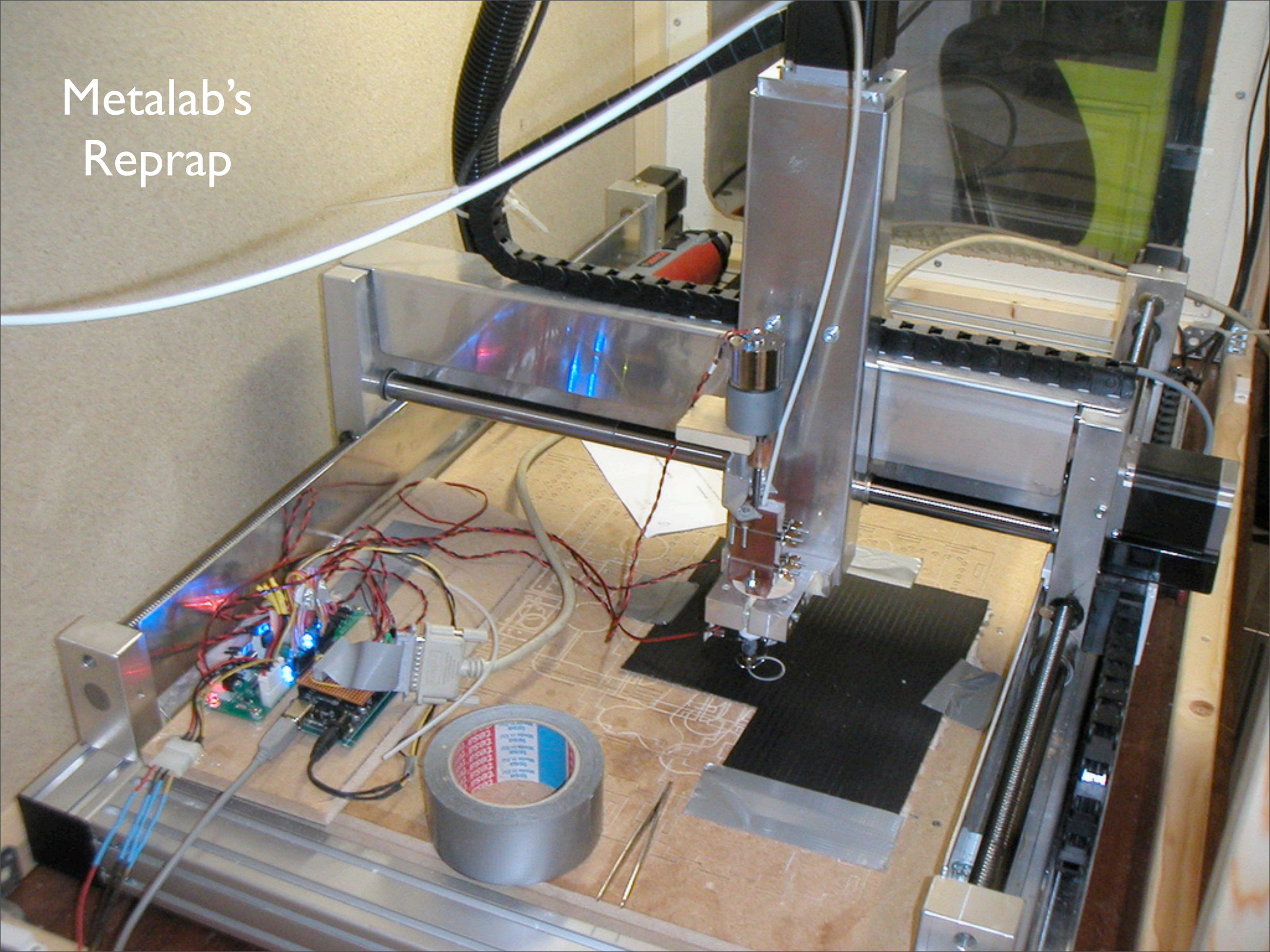
M02.....PROGRAMMENDE

DIY Rapid Prototyping

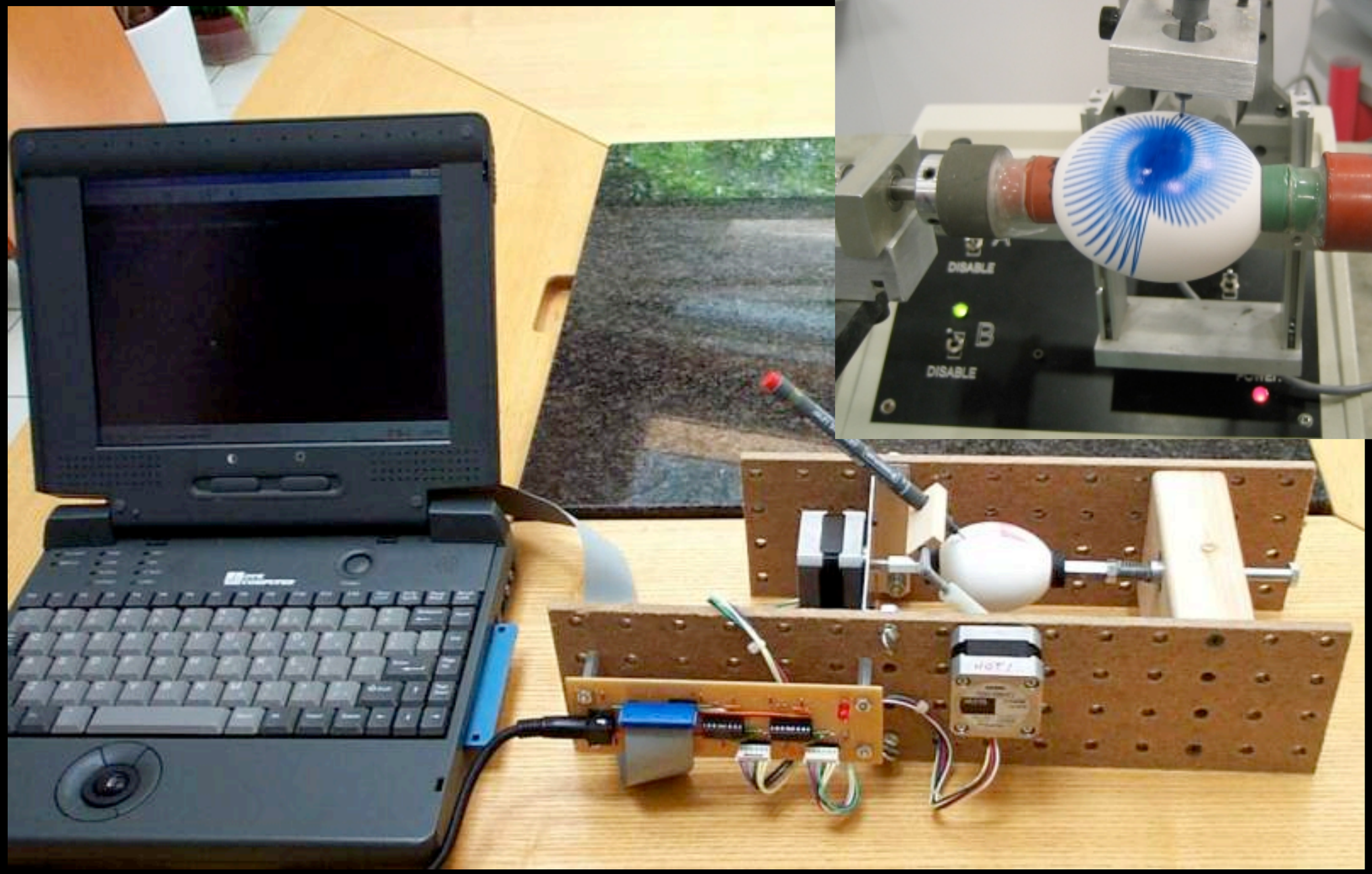


Metalab's Repstap

Metalab's Reprap



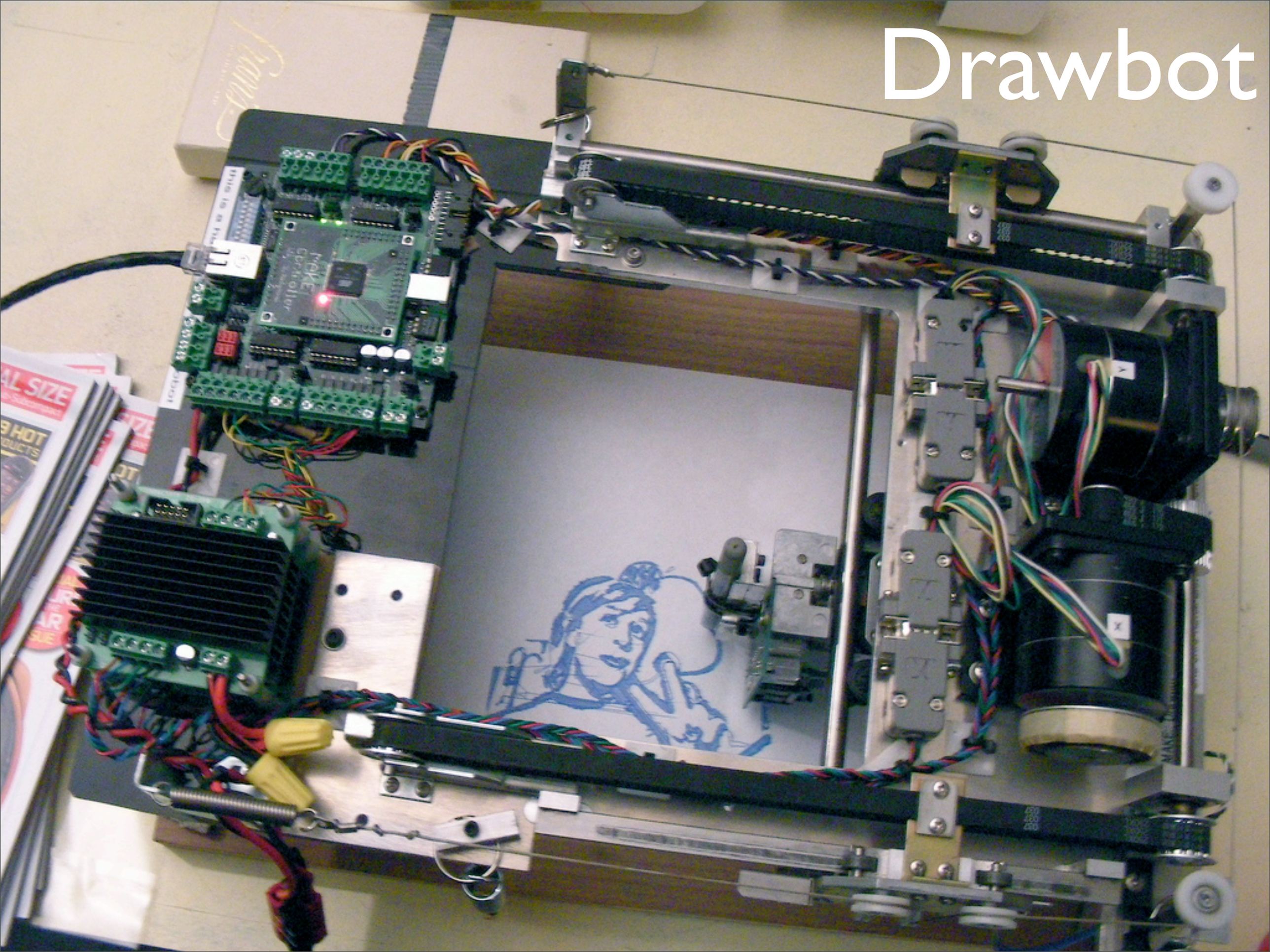
Devon’s CNC

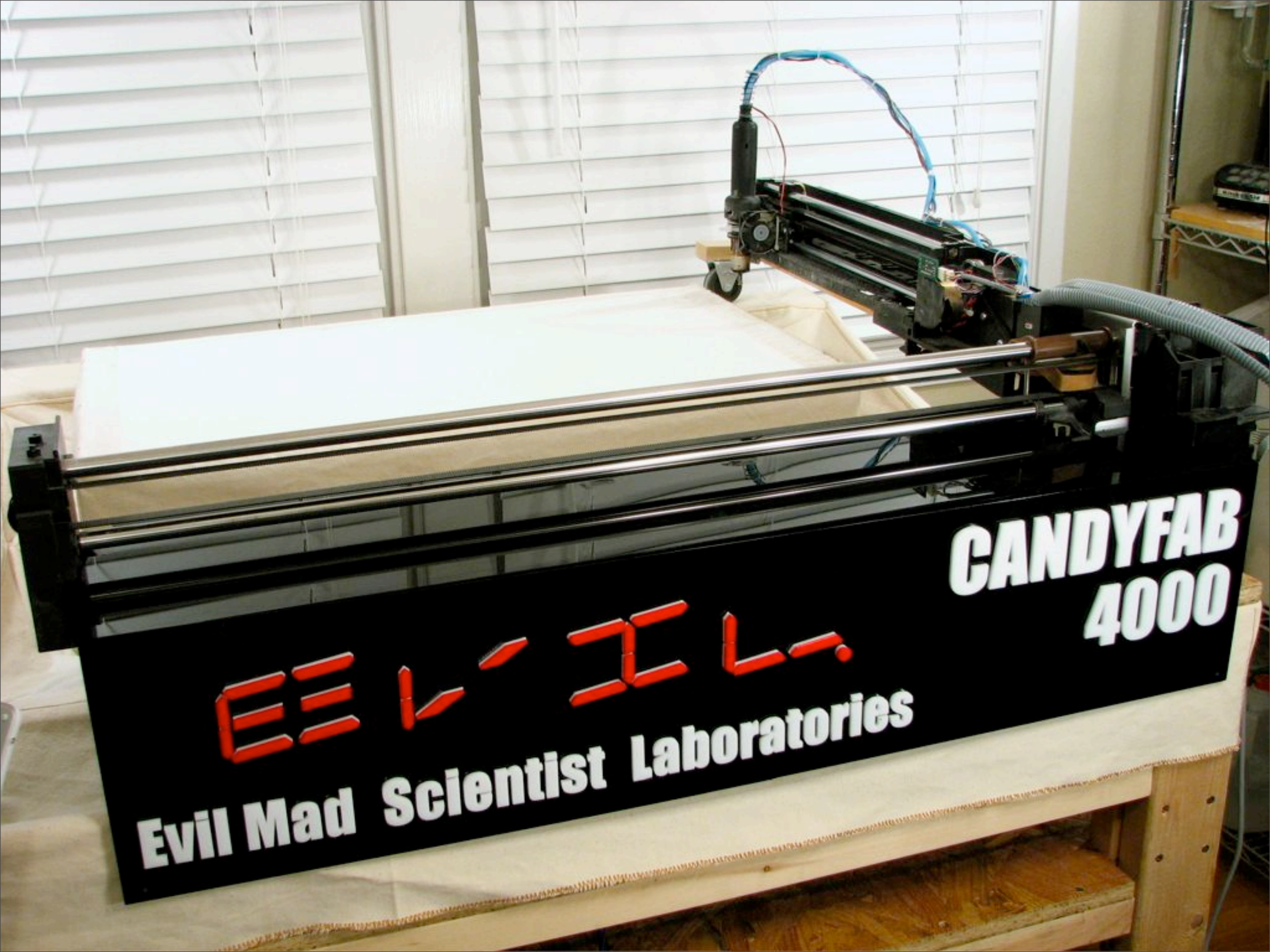


Bruce Shapiro's Eggbot

http://www.taomc.com

Drawbot

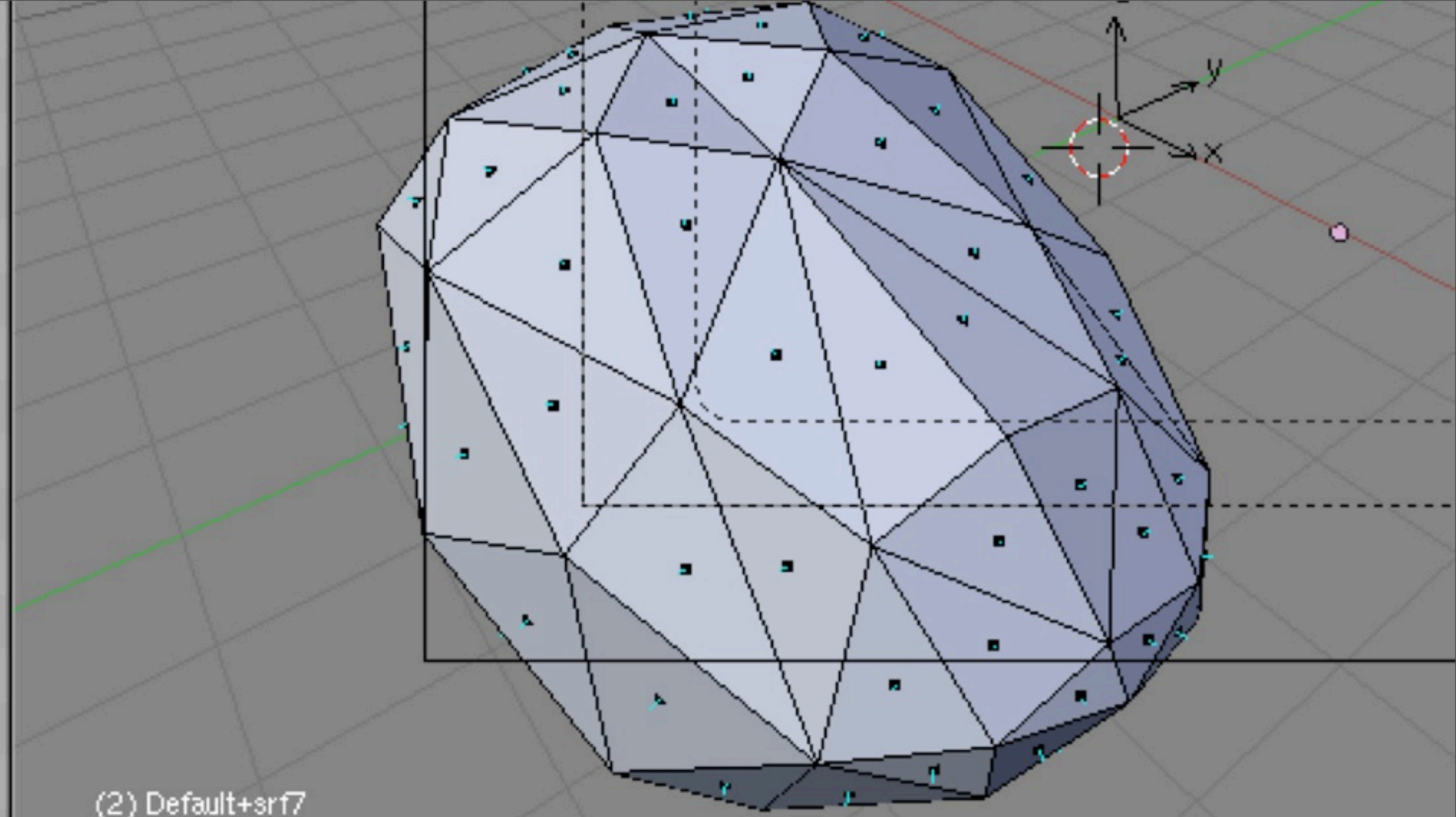



CANDYFAB
4000
Evil Mad Scientist Laboratories

Evil Mad Scientist - Candyfab
(The revolution will be carmelized

Commercial Rapid Prototyping Machines

Printer



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Mesh Tools

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To Sphere	Smooth	Split	

Mesh Tools 1

Centre	Hide
Select Swap	Reveal

>>Japanese page

TAMA SOFTWARE

PePaKuRa Designer

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PePaKuRa Designer

Let's make paper craft models from 3-dimensional data

Make templates for paperwork models from 3D data files

The latest version is 3.0.3.

Get Pepakura Designer 3

Here

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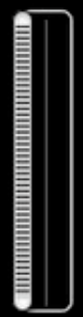
NEW!

op-Up Card Designer PRO

Cutting Plotter

Jeffrey Purdy
Jeffrey Purdy
Jeffrey Purdy



Jeff Rutzky's Papercraft

Knitting Machine

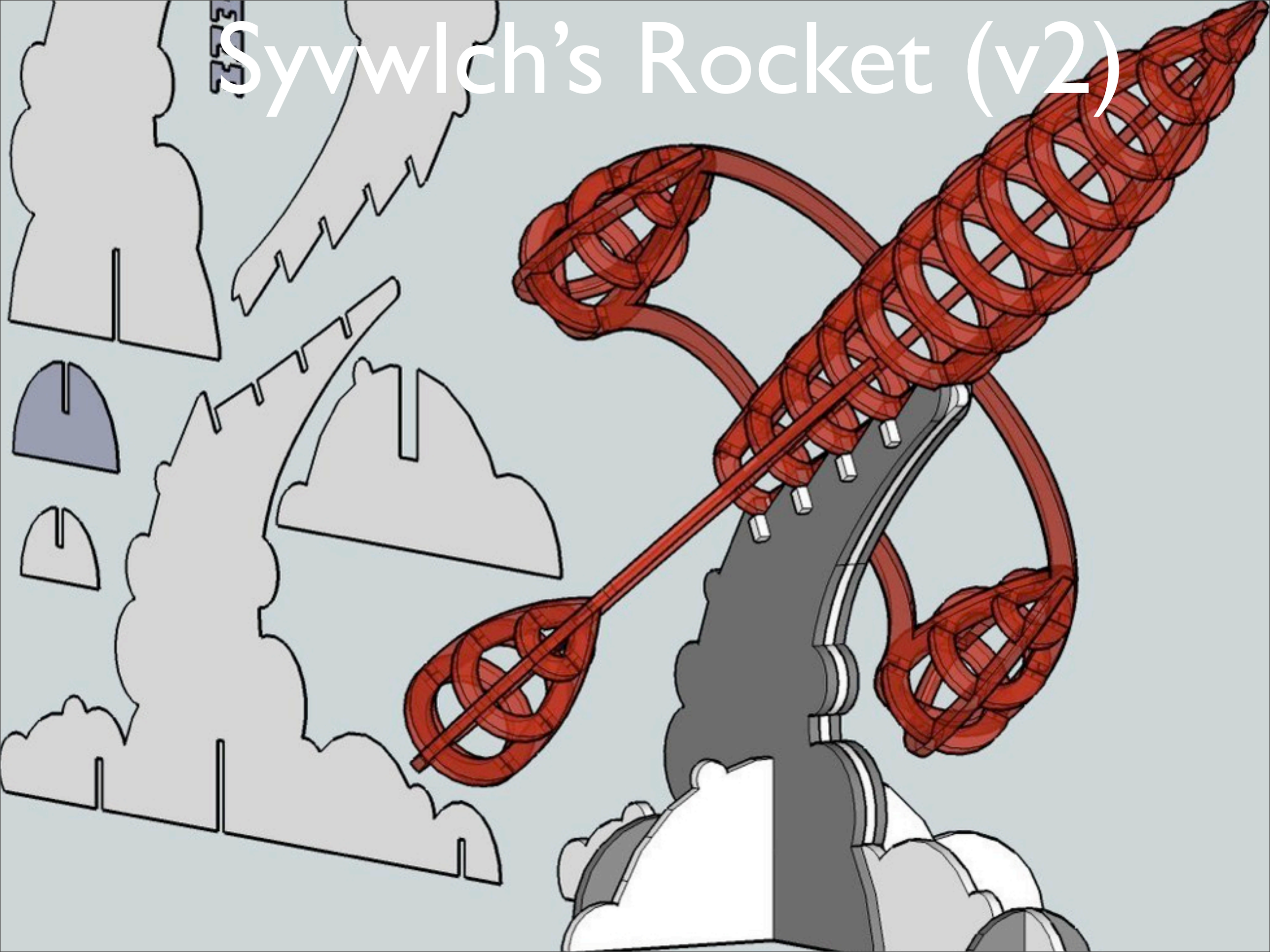
Photo by Rose

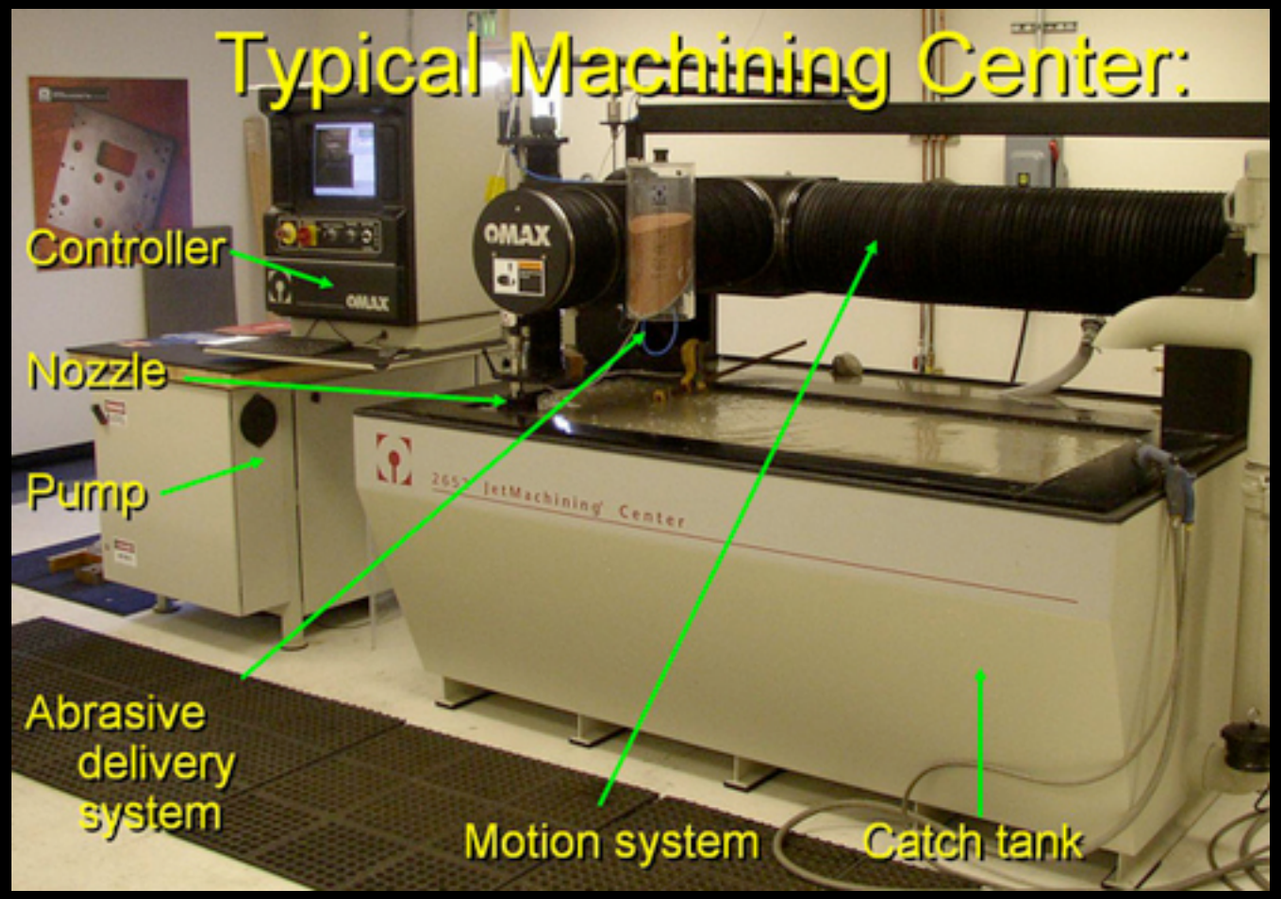
Shop Bot

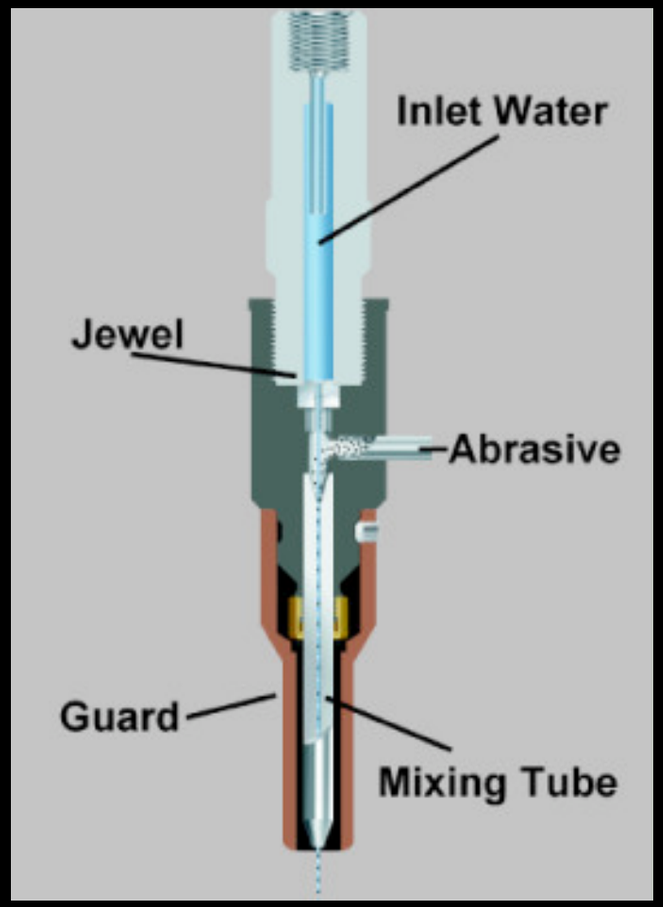
Laser Cutter

Eric’s Laptop Stand

Syvwlch's Rocket (v2)




Typical Machining Center:
Controller
Nozzle
Pump
Abrasive delivery system
Motion system
Catch tank
OMAX
OMAX
JetMachining Center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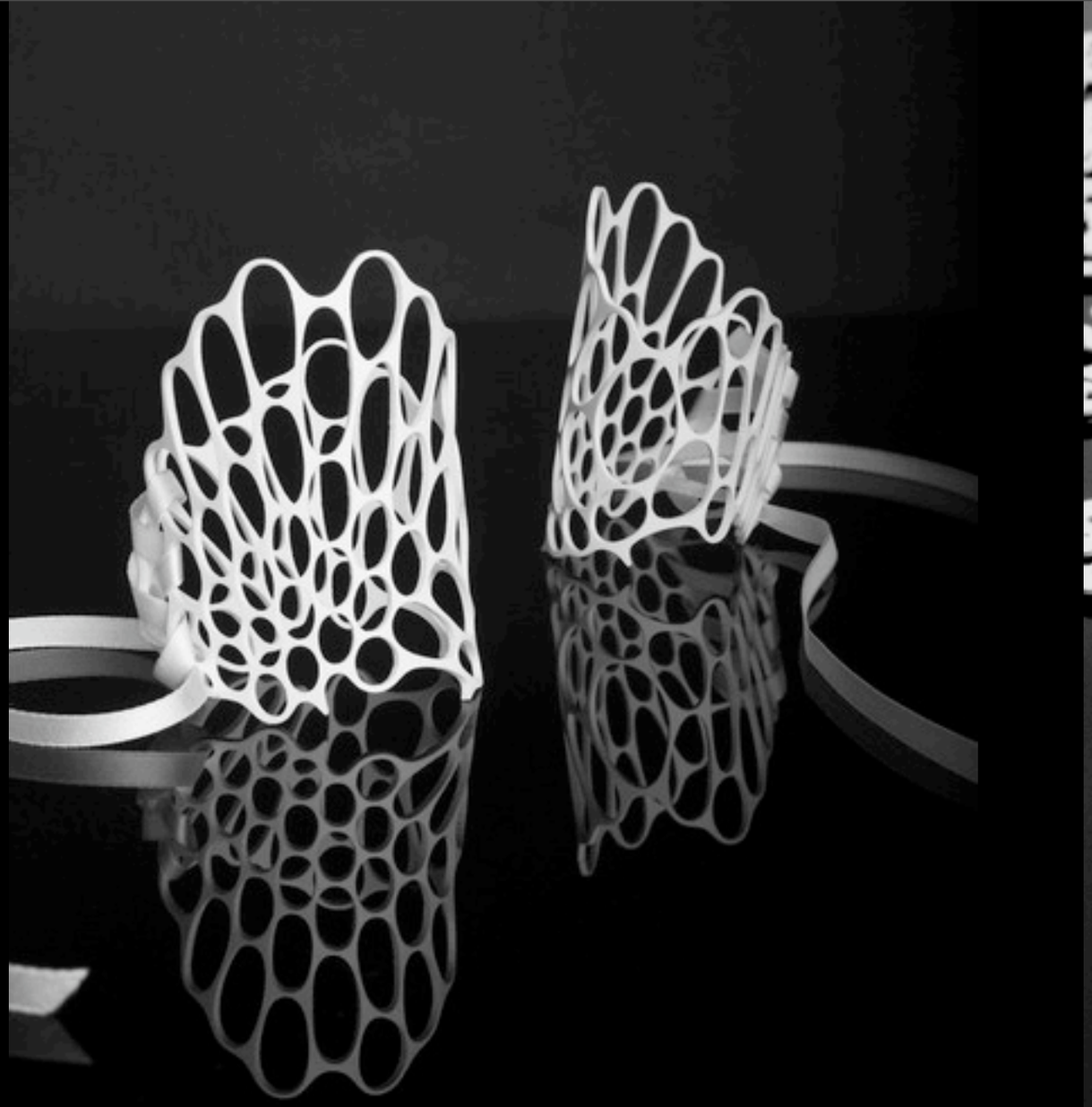
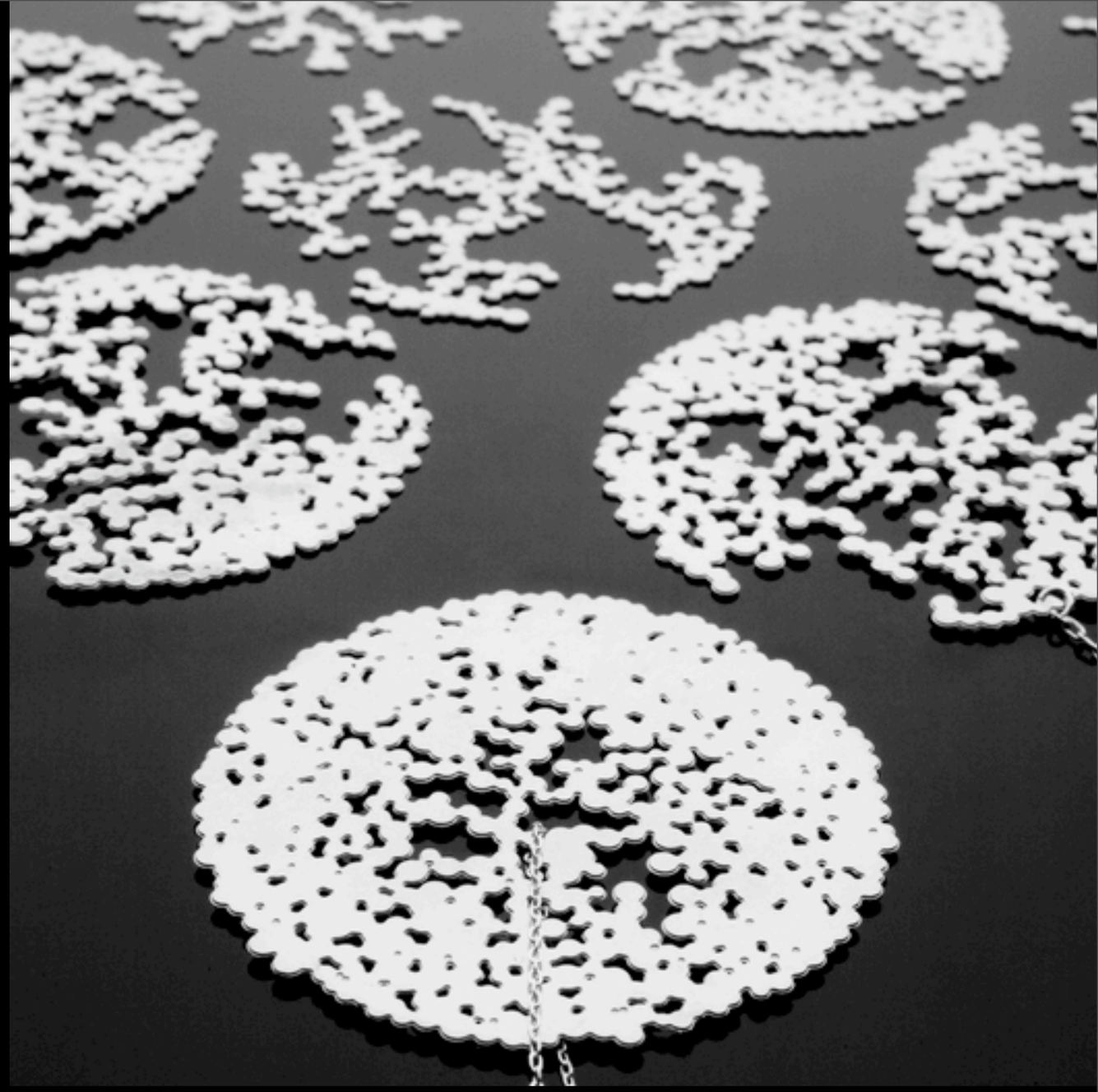
Waterjet

Shower 70 PSI

Waterjet 60,000 PSI

(900 MPH)





Nervous System

3D Printers

Objet

http://www.flickr.com/photos/vmax137/535234088/

Bathsheba's Work

/toolpron

You've made a design with a rapid prototype machine in mind. Now is the time to make it real!

Local Options (Better for community)

- Make or buy a machine.
- Collectives, hackerspaces! Nycresistor, (metalab)
- Find someone with a machine. Trophy shops, sign shops, college labs, techshops.
- In Berlin, lasernlasern.de is a local option

Mail order objects

- Ponoko
- Shapeways (philips)

Commonist Objects

A culture of sharing.

Decentralized home based digital design and manufacturing

Digital designer meetup tomorrow 3:15

at the rocket We'll get lunch

http://groups.google.com/group/digital-designers
or http://tinyurl.com/digitaldesign