Prototyping

1. Why do you need a Prototype?
2. Early Prototypes of Everyday Things
3. Prototyping Tools On Campus
4. Ideas to Reality – IP and Patents
5. Today's Challenge

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Comm 486A 2013 Sept 23

You can Google

“comm 486a prototyping”

to get this material.

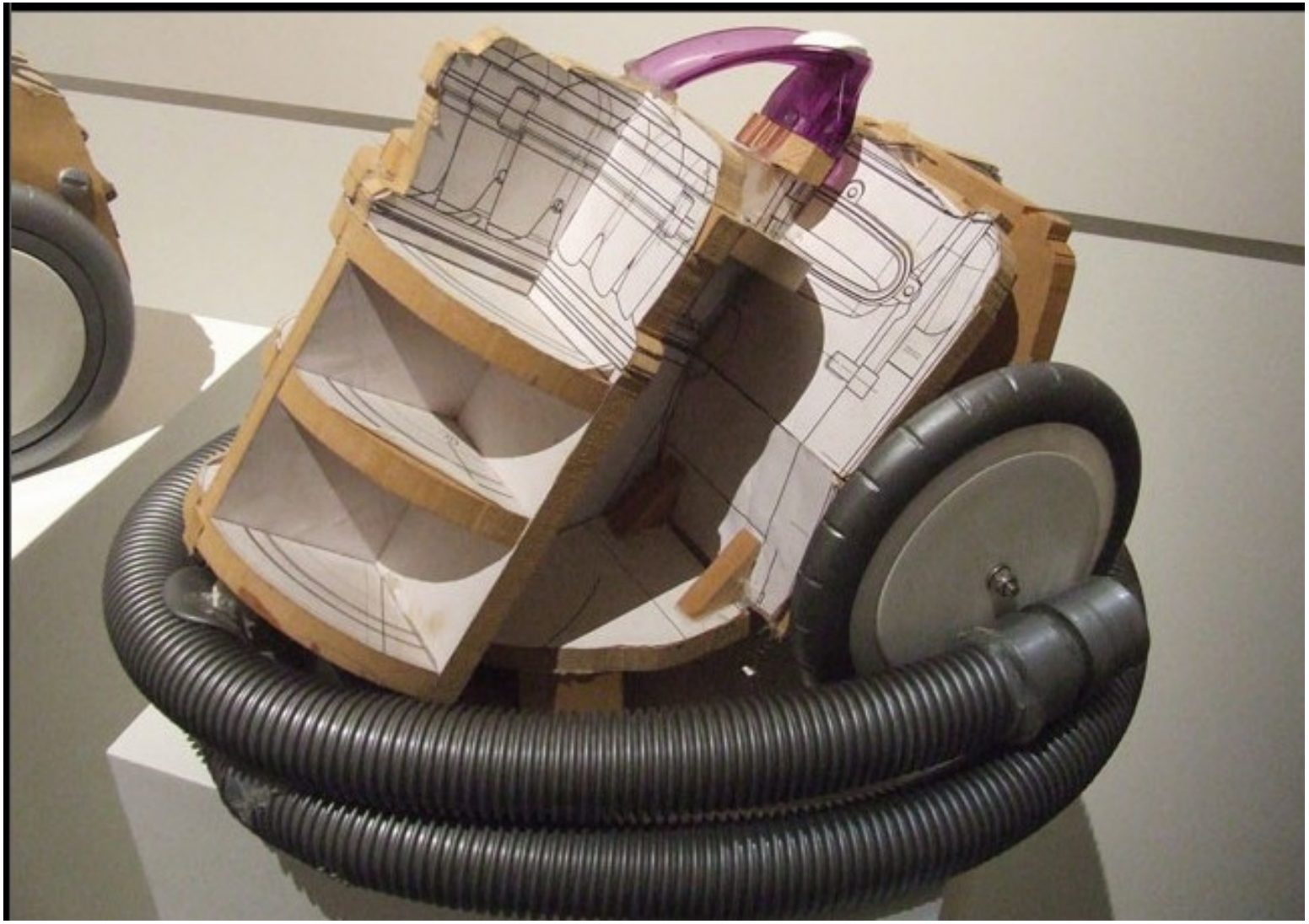
1. Why do you need a Prototype?

Function Form

Decide on which side you will focus development.

Who will see and use the prototype?
What are you trying to convince them to do?
Is a prototype really the best way to convince them?

2. Early Prototypes of Everyday Things



http://www.core77.com/gallery/vienna-design-week-2010/26.asp

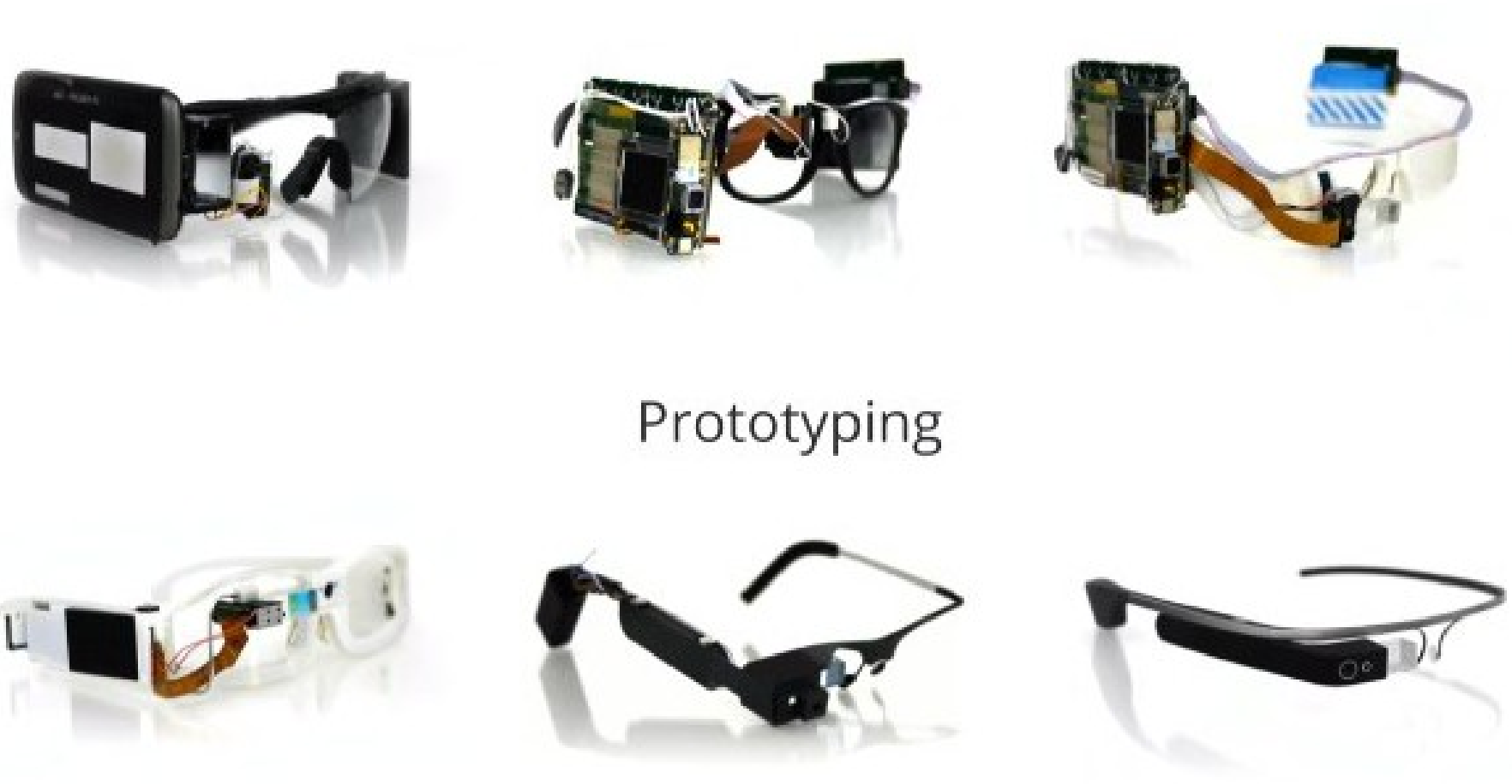
http://www.inventionpartner.com/prototyping-model.html

4inch

10inch
(estimate)

http://www.boreme.com/posting.php?id=21374

http://www.theverge.com/2013/3/12/4086434/microsoft-surface-concepts-prototypes-photos



http://gizmodo.com/here-are-what-the-prototypes-of-google-glass-looked-lik-507193147

http://smartdesignworldwide.com/work/oxo-good-grips/

The first Doritos Locos Taco prototype

*“To show executives how the companies could fuse the flavor of Doritos with taco shells, the dev teams "basically went out to Home Depot to **buy a paint-spray gun, and then sprayed [Doritos] flavoring onto our existing yellow corn tacos**," recalls Creed, with a chuckle. "It was pretty funny watching people from behind glass spraying our tacos with a paint gun. But it was enough for us to know conceptually that we had a big idea.”*

*“Since it launched in **early 2012**, Taco Bell has sold **more than 450 million** Doritos Locos Tacos” [as of June 2013]*

http://www.fastcompany.com/3008346/deep-inside-taco-bells-doritos-locos-taco

AMS New SUB
Kinetic Art Projects:

Runoff.

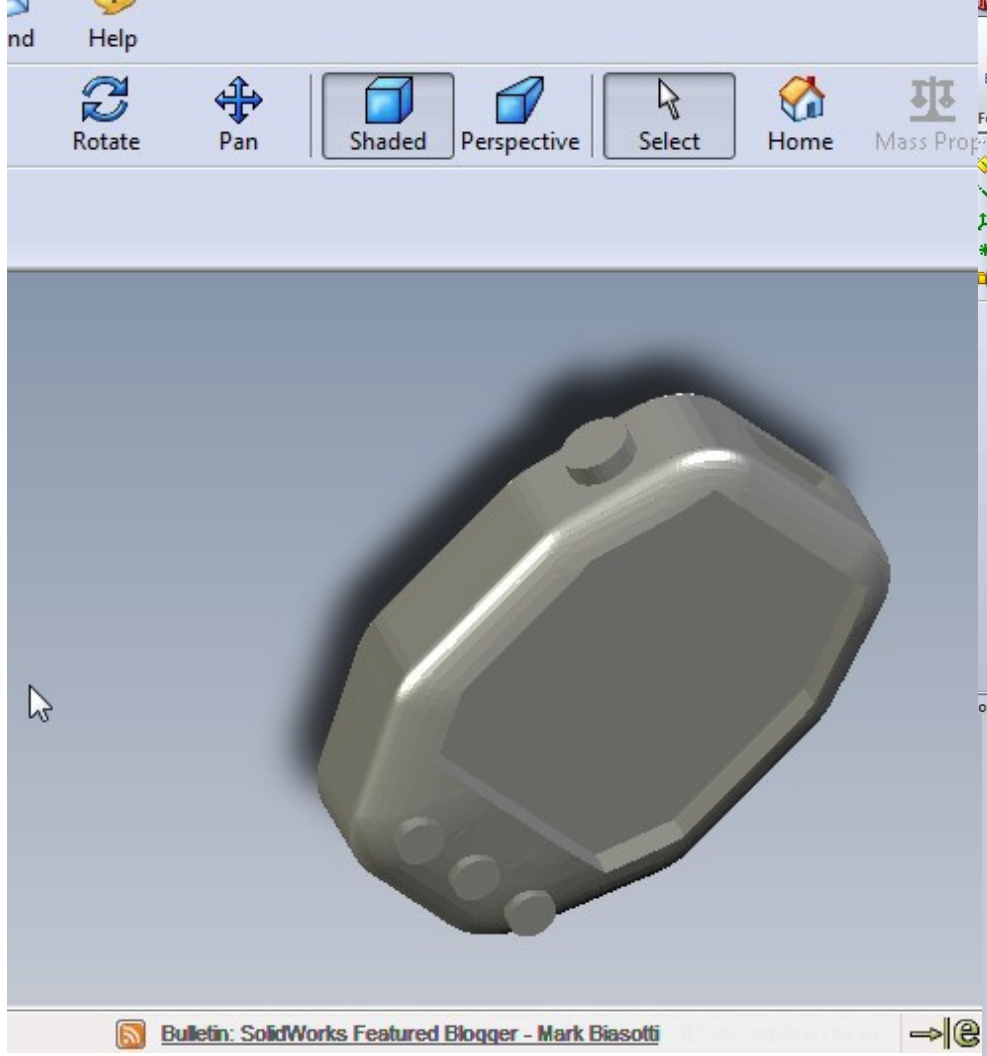
AMS New SUB Kinetic Art – TIMBER! Project

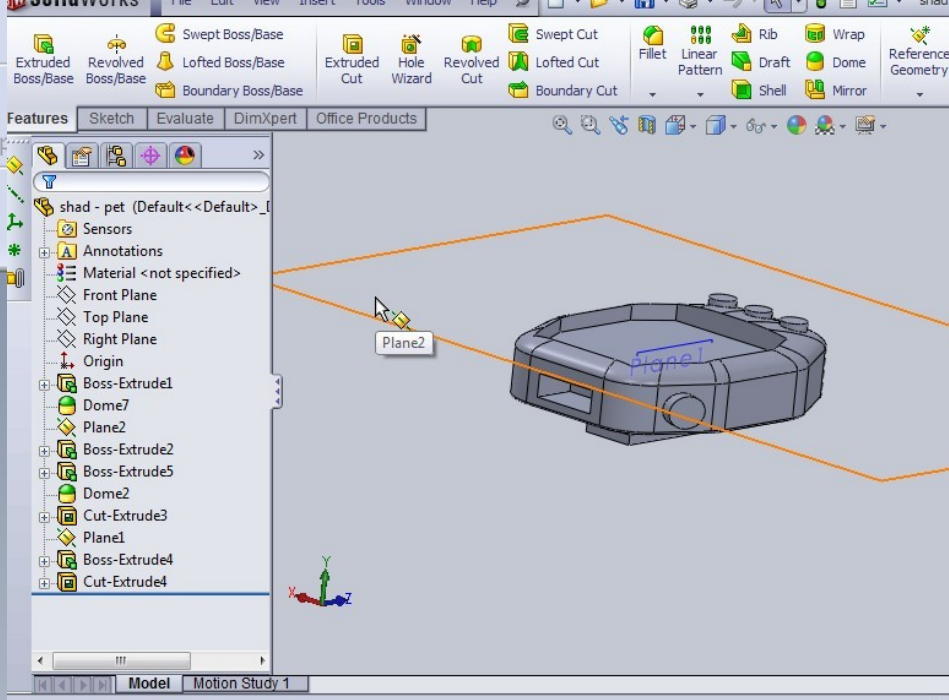
AMS New SUB Kinetic Art – TIMBER! Project

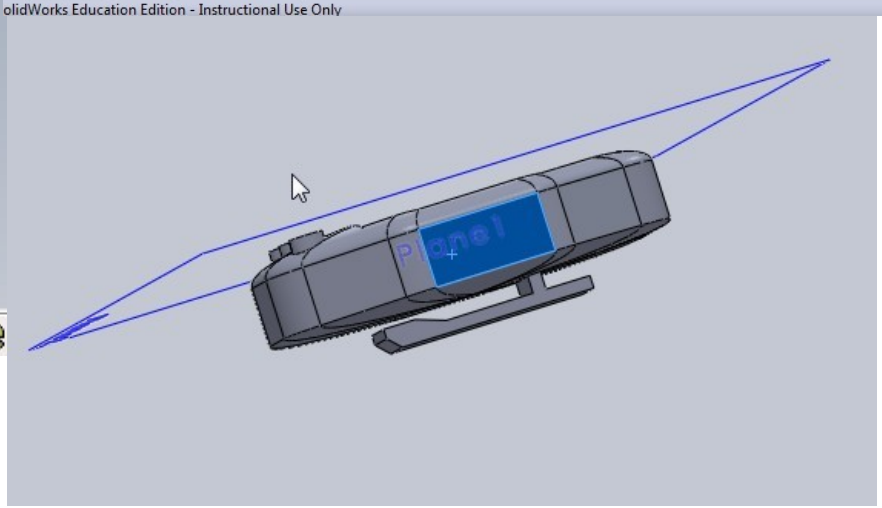
3. Prototyping Tools on Campus

3.

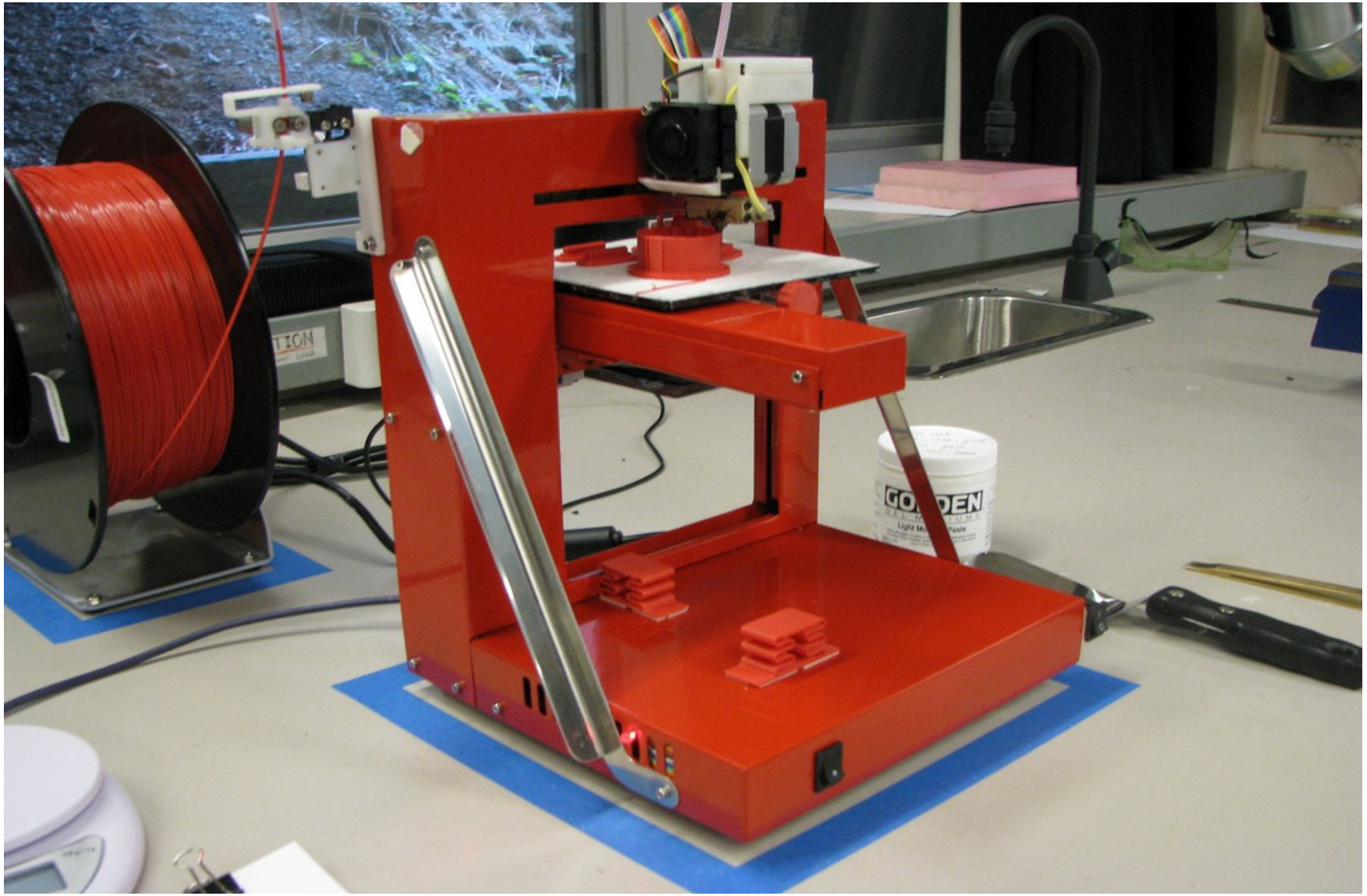
Prototyping Tools on Campus



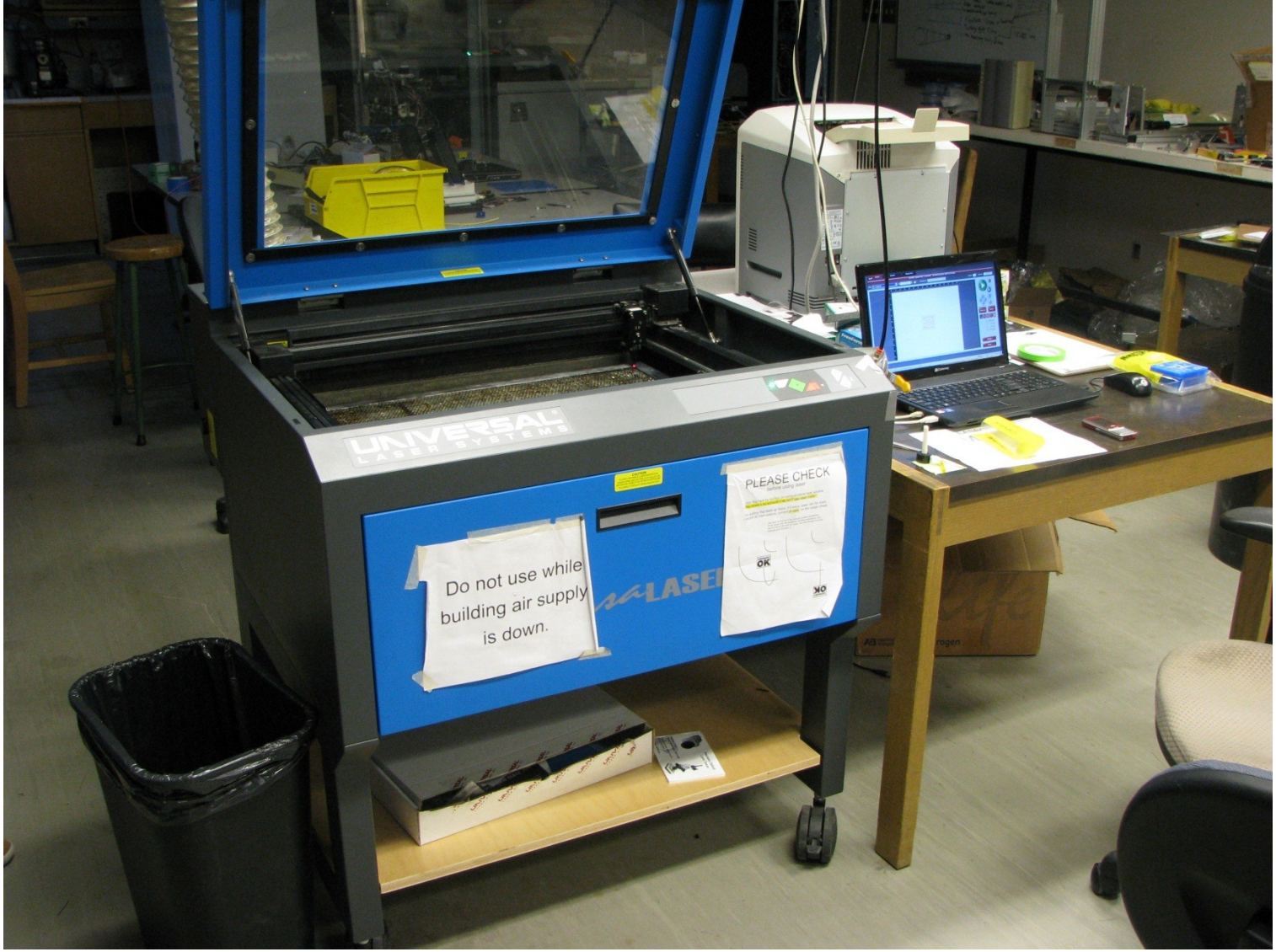




Computer Aided Design (CAD) software



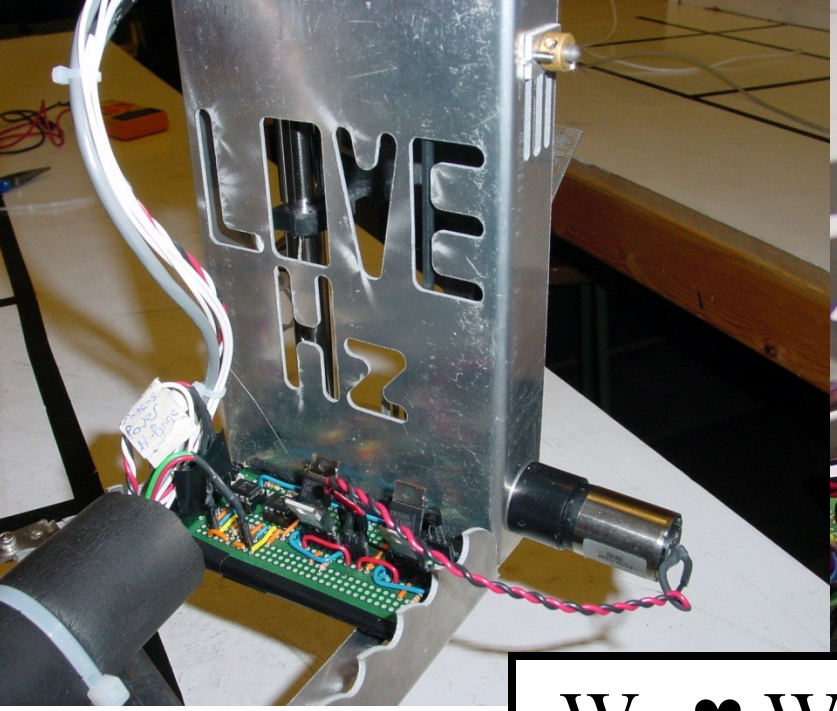
3D Printer – makes physical models from ABS plastic

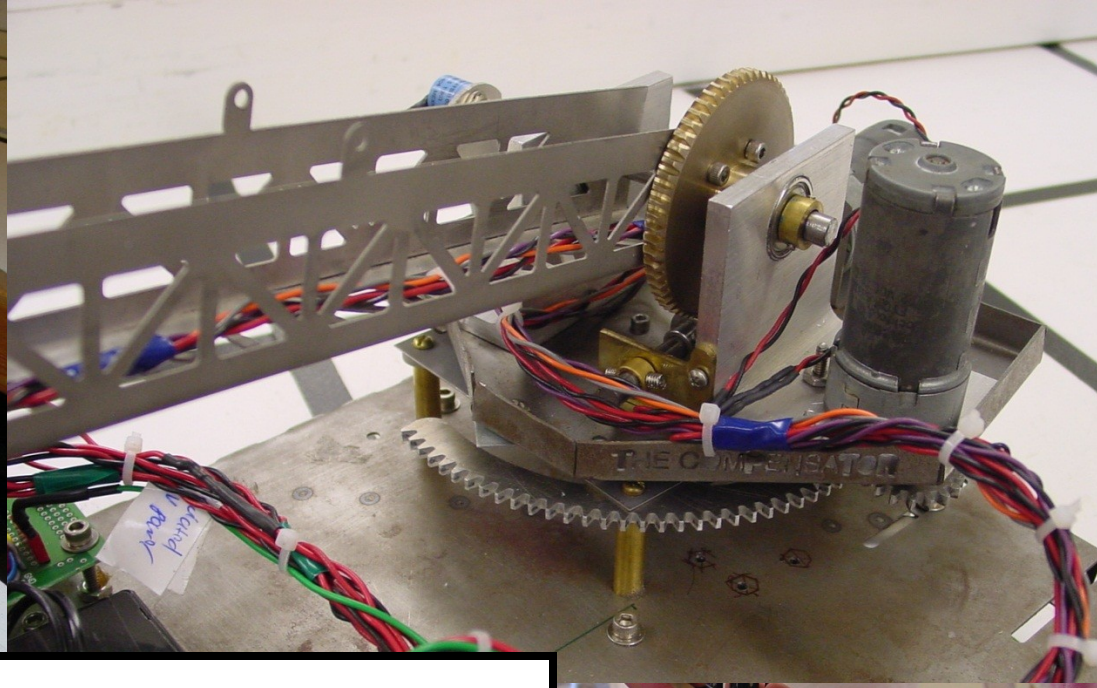


Laser Cutter/Engraver – can cut cardboard, wood, some plastics.

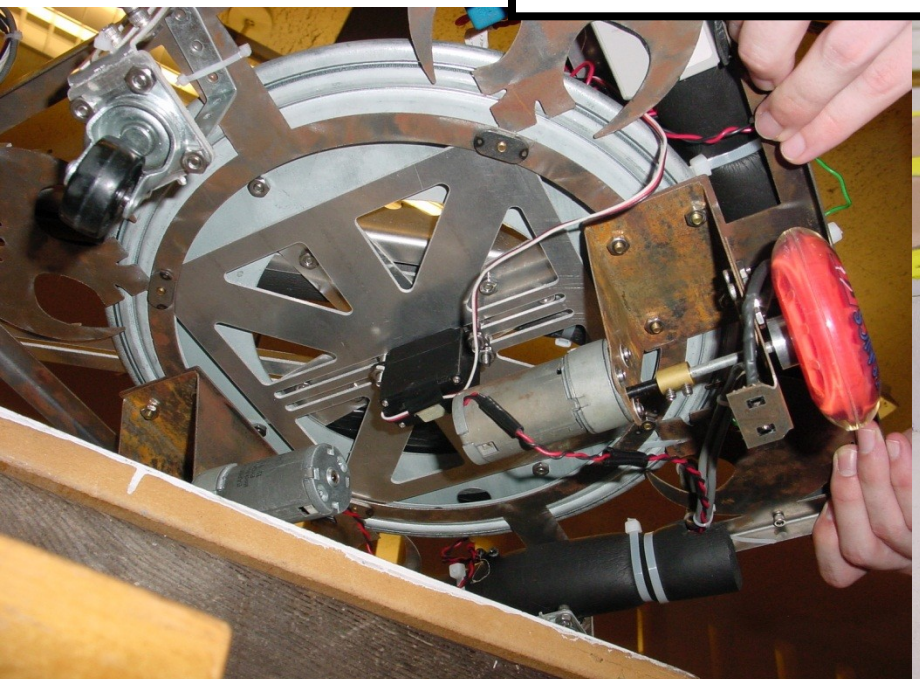
Finished – idea from high school students Thurs night, completed on Sun night.

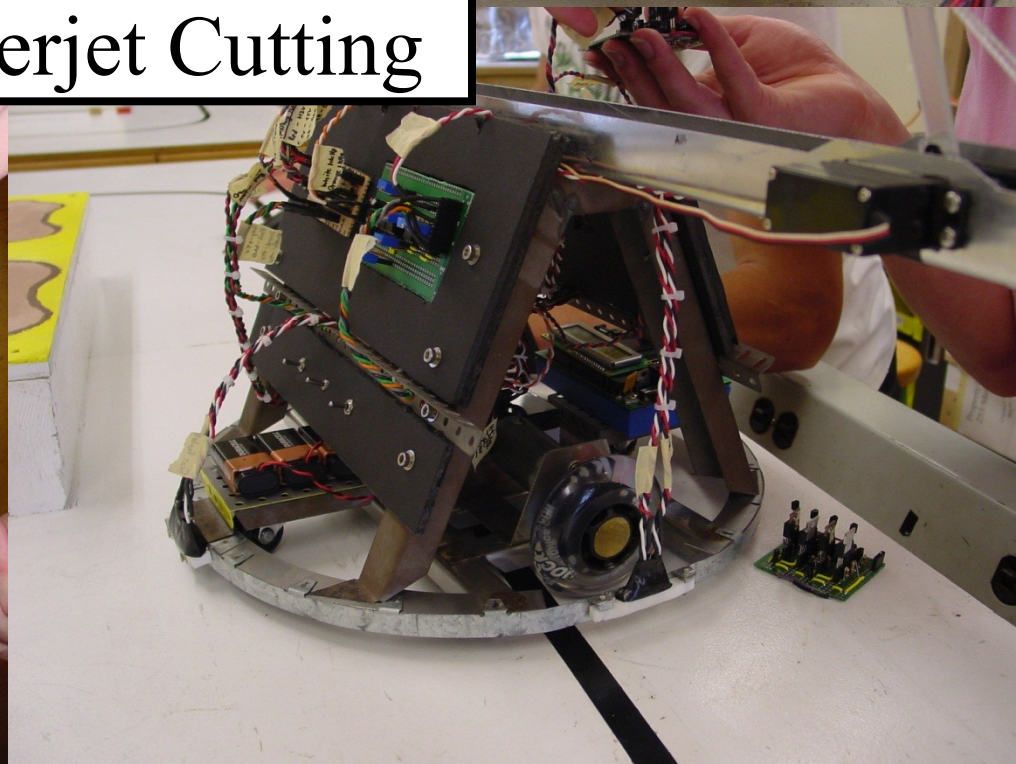
WaterJet cutter Our most versatile prototyping machine. Cuts everything

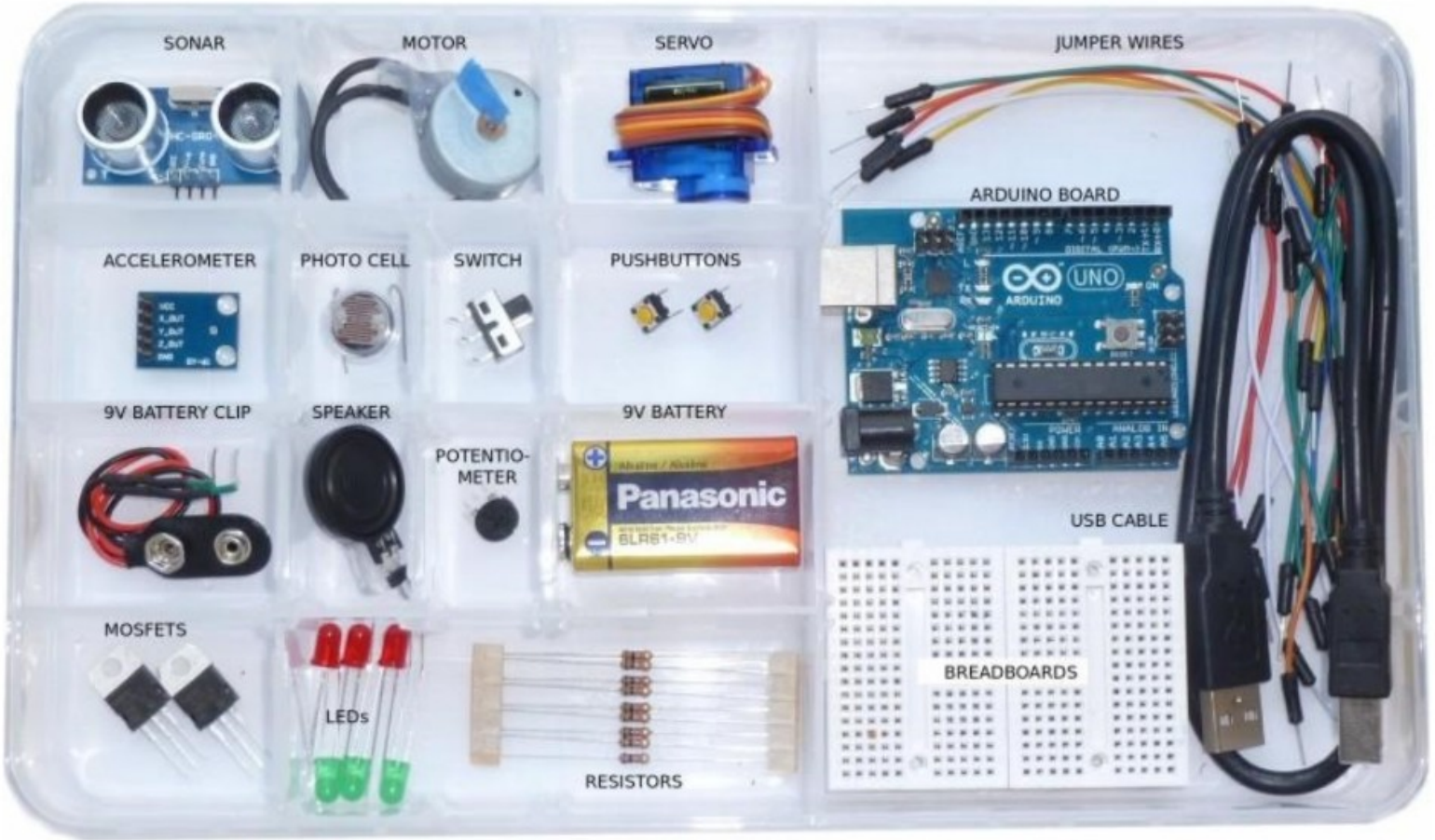




We ♥ Waterjet Cutting







Your kit contains:

1x Arduino Uno
1x USB cable
9x resistors
1x knob (potentiometer)
2x small breadboards
2x MOSFET transistors

1x 9V battery
1x 9V battery clip
1x small servo motor
1x small DC motor (with blue flag)
6x LEDs, assorted colours & sizes
1x photocell

1x sonar
1x accelerometer
1x switch
2x pushbuttons
A set of jumper wires

If items are missing, we do have some spares at the front.

Rapid Prototyping for Electronics - Arduino microcontroller

4. Ideas to Reality – IP and Patents

Patents are exclusive rights granted to the inventors of an idea or method, in exchange for making the idea public knowledge.

Can be expensive ($10,000 +)

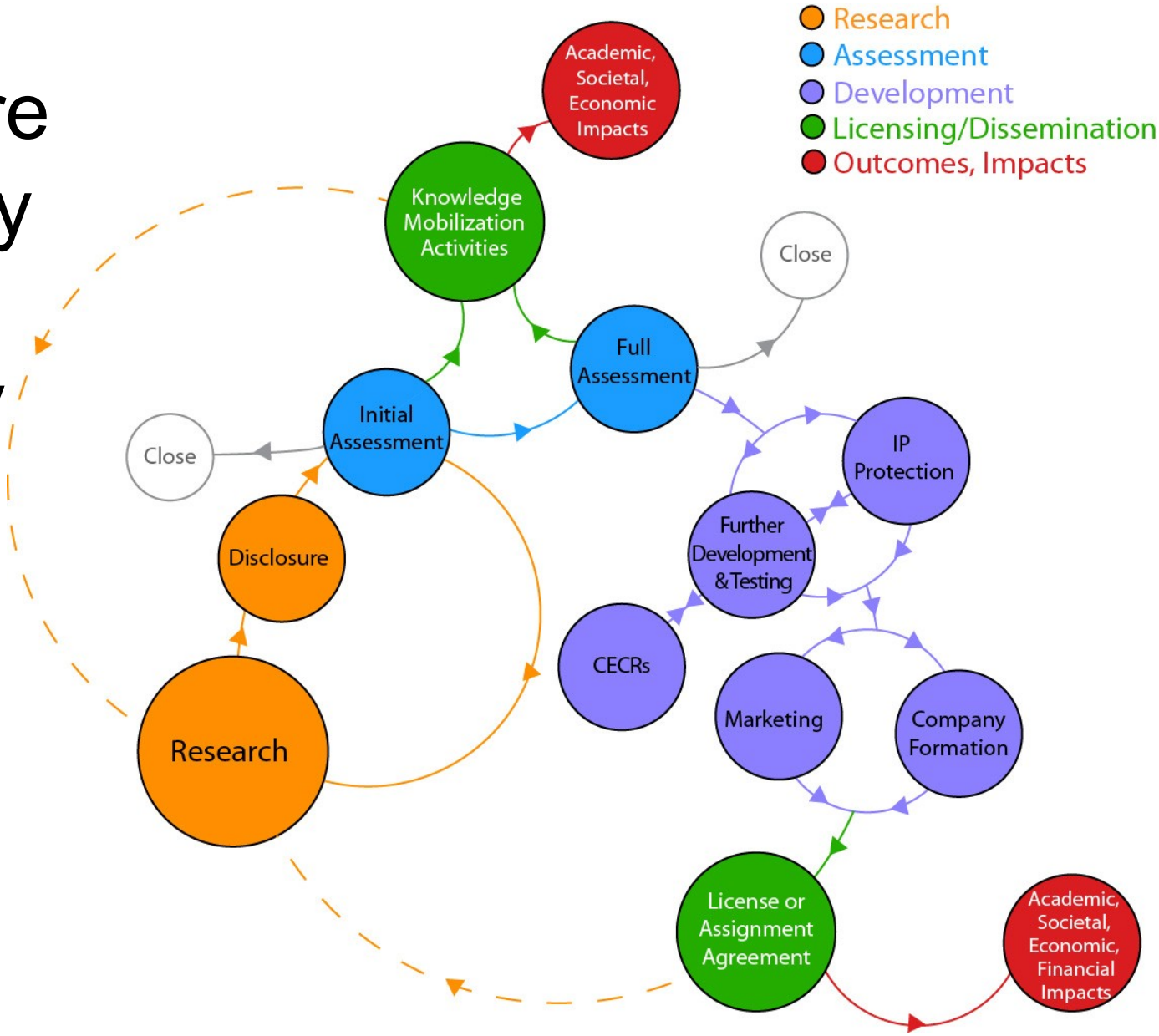
You can make money 3 ways:

Licensing and allowing another group to use your patent for a fee.

Selling your patent (aka assignment).

Using your patent for your own business.

UBC Patents are handled by the **UILO** (university industry liaison office).



5.

Today’s Challenge



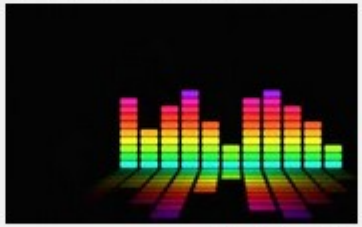



One good thing about
music, when it hits you,
you feel no pain.


MUSIC





MUSIC

Music


MUSIC
NO MUSIC · NO LIFE



MUSIC

The Challenge:

Develop something to help with music discovery in a non-conventional way.

This Can Mean:

- Commercial Partner (McD, Starbucks, Lululemon, etc),
- Packaging format,
- Something Interactive and Tactile,
- etc…

The Rules:

- Work in groups of ~4.

Materials

- Paper, Cardboard
- Foamboard and pink insulation
- Modeling clay
- Adhesives (hot glue, clear/duct tape)
- Some sheet metal
- Scissors and knives

Use your own items (headphones / cellphone / computers)

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Thanks!