

Welcome to ATLS ,5400
or...

How to become a mad inventor.

Instructor: Zack Weaver
he/him



What to expect...

based on what I expect of myself (and my past self).

Time: Real?

And, fu@#in' magnets! How do they work?

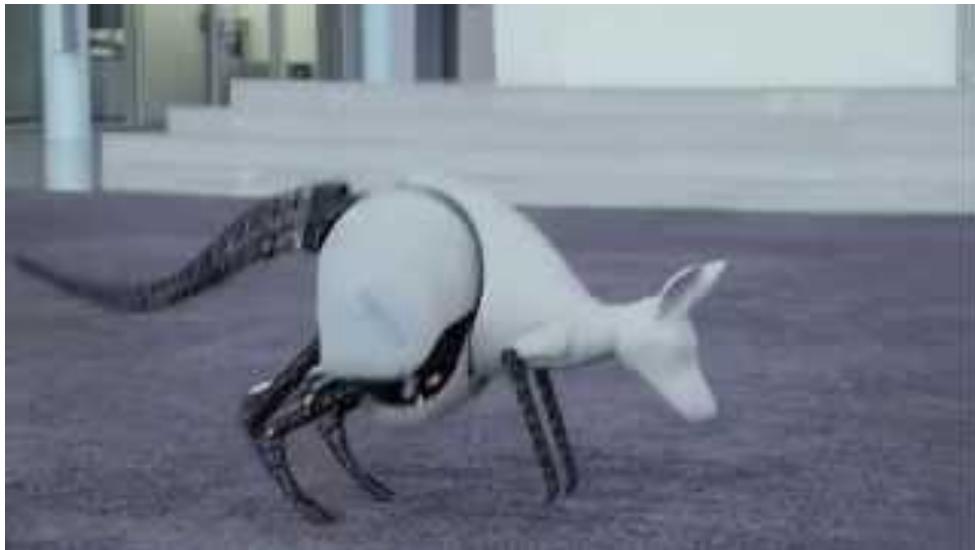
Required: 2:1

Realistic: 3:1

Low-Level Expectations

- Acquire and build skill, especially time-management.
- Make nice with Electronics and Microcontrollers.

Instagram:



Reality:



Manage Expectations.



Digital Fabrication

("Enclosures" are part of all your big assignments.)

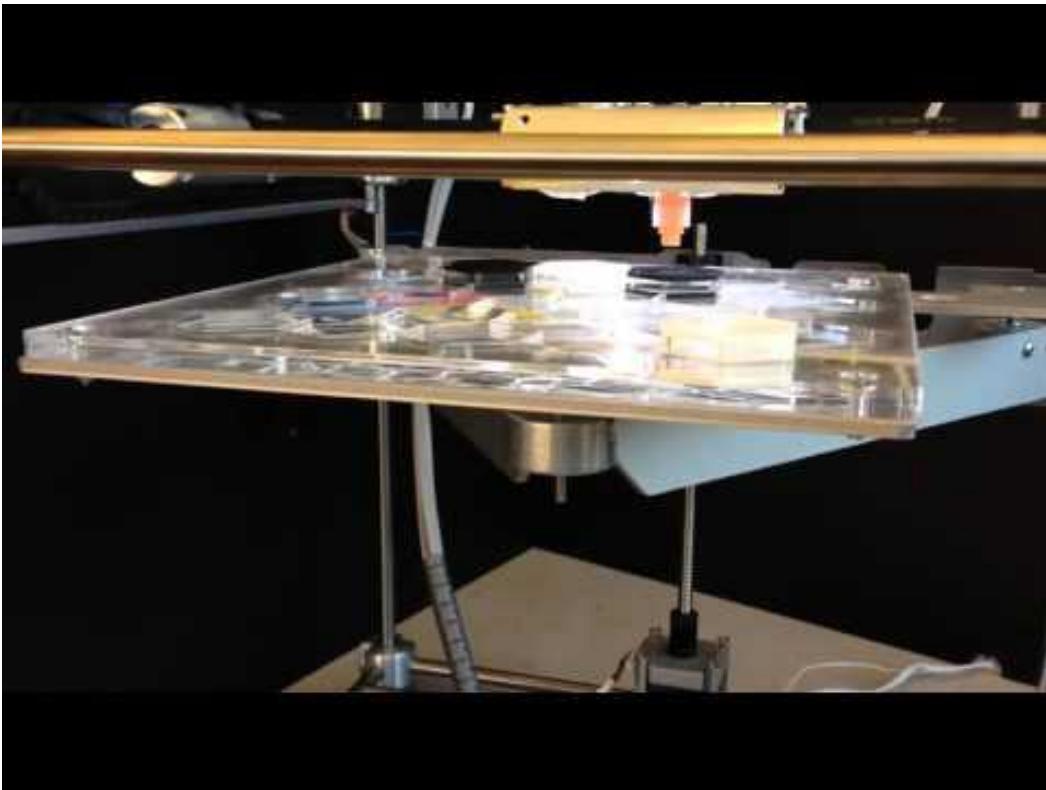
This was hand assembled.

This was hand finished.

This represents 1000s of hours of practice.

Mid-Level Expectations

Mash Up Multiple Skills



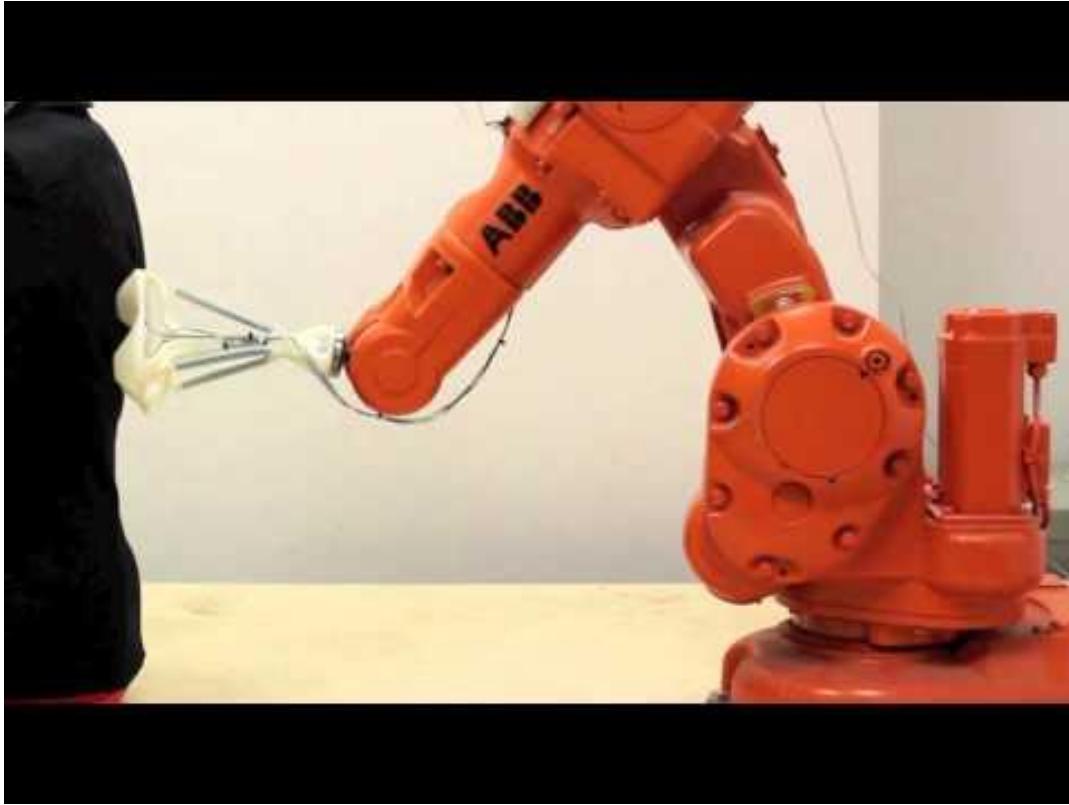
Hack a 3D printer.
(motion control)

Show us an old idea
in a new way.
("Lower the barrier to entry.")

Learn a lot in the
process.

(Computer Science, Electrical Engineering,
Mechanical Engineering, Game Design, Why
voltage is good sometimes, and sometimes it's
mid-to-electrocution.)

Mash up multiple knowledge domains



Human Computer
Interaction + Robotics =
Human Robot Interaction.

Problem: I'm an exhausted
Grad student working with
industrial robots.

Solution: Get a massage
from an industrial robot.

High-Level Expectations

Provocation & Style



Aesthetics matter.

Shape and color tell a story about an object.

Materials and textures do the same.

Empathy, in...action?



Problem: Long distance relationship.

Solution: “Connect” remotely.

Trying to salvage my relationship

"Creative" vs/ Technology

The screenshot shows the Hackaday homepage with a featured project. The project title is "AUTO-METER READER FEEDER KEEPS METER-MAIDS AT BAY" by Joshua Vasquez, posted on February 14, 2015, with 45 comments. The image shows a mechanical device mounted on the hood of a car, designed to dispense meter readers from the driver's window. The device has a large white plastic spoon-like component and a coiled tube. The background shows a brick building with large windows.

This project is:

10% technology

85% aesthetic

And 200% concept...

if my math is correct.

What is the importance of the Art?

Engineering *WITH* Designers:



Engineering *WITHOUT* Designers:



You are not a robot...

Right? Wait...uh...



Self-care is great, too!



Self-care is great, too!



A photograph of two light brown fortune cookies, one slightly overlapping the other, positioned centrally in the lower half of the slide.

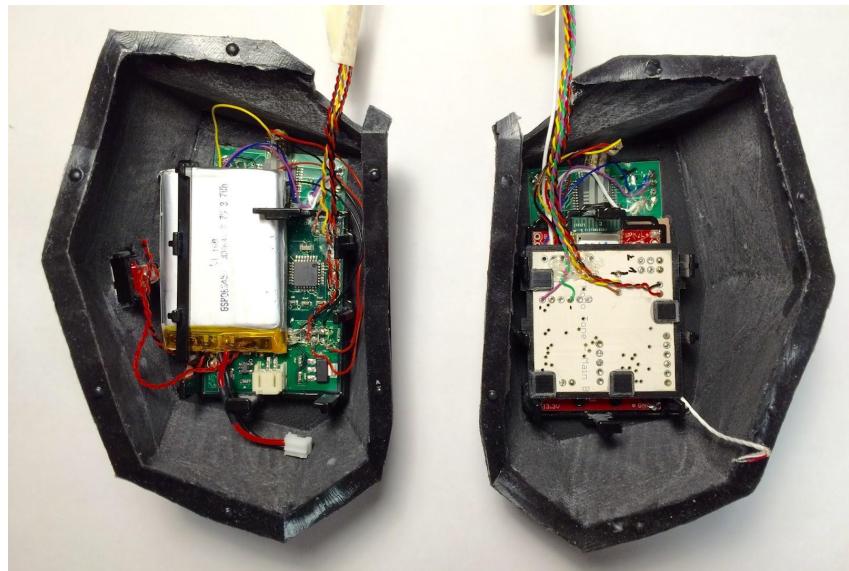
It is not self-centered to find inspiration in self-interest.

It is self-interested to create something of no shared use.

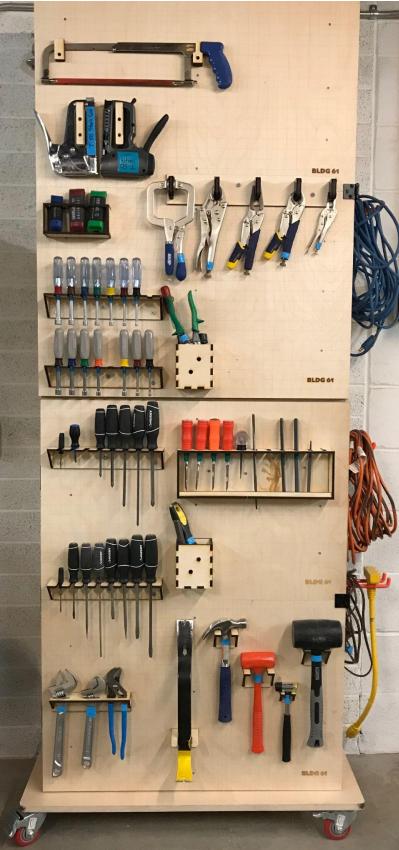
-My neighbor Ron, 4 handicap at Ute Creek Golf Club.

Exceeding Expectations

Iterate!



Systems over objects



Be of Service!

Cubre-bocas

Plantilla desarrollada por Suzan Platzer y Emily Platzer
Traducción de Adriana Paola Palacios Luna

Materiales requeridos:

Tela de algodón acolchada
Dos piezas de 1 yarda de largo de cinta de bies

Herramientas requeridas:

Máquina de coser
Plancha

Instrucciones:

1. Corte de tela de 7 x 16.5 pulgadas.
2. Lados derechos (Ej. lados con diseño) unidos y doblados a la mitad, coser los lados de 7 pulgadas juntos y una margen de costura.
3. Voltear al lado derecho y planchar.

4. De cada lado de 7 pulgadas, coloque marcas con alfileres en los siguientes incrementos, terminando con 8 marcas e:



5. Dobla para que las marcas se toquen, plegando el cubre-boca.

6. Hilvania los pliegues para fijar.

7. Centra una de las tiras de cinta bies en el lado plegado y se posteriormente de uno de los lados de la cinta bies une arriba atrapando la parte plegada en la sección media. Repite en



What is the big picture?

SUBJECT: The "what".

CONTEXT: The "how" and the "why".

VISION: The "do".

CONTEXT = CONSTRAINTS = FOCUS = ACTION

Skill building is important. But you can do it for free with a good public library and a strong will.

We will avoid doing *together*, things you can Google or ChatGPT anytime.

We're going to take advantage of *what we are afforded* in this time and place.



expert



All Images Shopping Videos News Forums Web More Tools

Saved



Building Efficiency Resources
Be The Expert – BER



Crossroads Professional Coaching
Expert at Everything



Casey Printing
Talk to an Expert



SLC Bookkeeping
Business by Not Being An Expert...



IEEE-USA InSight
Got Expertise? Become An Expert Source ...



GrabCAD Blog
Experts Are Wrong! GrabCAD Blog ...



LinkedIn
Position Yourself as an Expert on LinkedIn



Alamy
Expert hi-res stock ph...



Expert
★★★★★

Solutions & Co.
I am a customer service expert



The Emotion Machine
Smart Tips For Every As...



Dreamstime.com
Expert Stock Illustrations – 90,337 ...



But Zack! I've done this for years?
Why do I have to...etc, etc, etc.



expert



All Images Shopping Videos News Forums Web More Tools

Saved



Building Efficiency Resources
Be The Expert – BER



Crossroads Professional Coaching
Expert at Everything



Casey Printing
Talk to an Expert



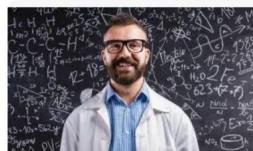
SLC Bookkeeping
Business by Not Being An Expert...



IEEE-USA InSight
Got Expertise? Become An Expert Source ...



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Expert Stock Illustrations – 90,337 ...



Why are these all white dudes?

(JK. I know you know. And now I know you know I know.)

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