JOHN MORELAND johnmoreland.io





EXPERIENCE

CAFEX

mechanical engineering present

- The only in-house mechanical engineer
- Designing and testing future iterations of the robotic cafe and peripherals
- Establishing internal mechanical engineering infrastructure
- Expanding in-house prototyping capabilities

炒BOOSTED

mechanical engineering summer 2016

- Prototyped lightweight electric vehicles as part of the new product team
- Designed and fabricated electromechanical subassemblies
- Performed experiments with urban transport
- Researched emerging technologies

simplehuman

research and development 2014 - 2015

- Developed household products that improve daily tasks
- Created first-pass prototypes for proof of concept, which required teaching myself arduino and basic circuit design
- Performed market research via reverse engineering

PROJECTS

design for shamans

user experience design spring 2017

My team of four interveiwed and co-designed with urban shamanic healers to design a coffee shop/ shared communal healing space that is grounded in their values.

cnc egg decorator

mechanical engineering

Created a desktop 3-axis CNC machine capable of drawing vector shapes onto eggs. Fabricated with a combination of laser cutting and 3d printing.

poe.olin.edu/2016/Eggs

wooden hands

prototyping 2016

For a sculpture class at nearby Wellesley College, I built models of my hand in different poses using 2D contours. This involved 3D scanning my hand, slicing layers, and lasercutting,

folding kayak

prototyping spring 2016

Designed and fabricated a folding kayak using only corrugated plastic, duct tape, blue tarp, scrap wood, and pvc.

play project

experience design

Collaborated with four other students to design a turtle- themed play experience for fourth grade students. We fabricated "shell backpacks" for playing bio-inspired games.

volcano robot

project management 2014 - 2015

Led a team of 19 students through a year-long robotics challenge. Created a volcano exploration device, along with industry standard documentation and trade show booth.

SKILLS

design

solidworks photoshop illustrator

prototyping

mill router 3D printer laser cutter circuit design soldering

code

python arduino matlab html + css