

Ethan Glassman

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Project portfolio at efinkg.github.io/portfolio

Education

Expected Graduation May 2016

Washington University MS/BS Joint Degree Program

Candidate, Master of Engineering in Robotics (Electrical Engineering Department)

Candidate, Bachelor of Science Mechanical Engineering

Minors in Mechatronics/Robotics and Computer Science

Elon University Dual Degree Program

Candidate, Bachelor of Science Engineering Physics

Minors in Physics and Applied Mathematics

Experience

Jupiter Research Foundation, *Lead Mechanical Engineering Intern*

Summer 2014

- Led project to integrate and deploy a 1-micron resolution optical microscope on the Liquid Robotics Waveglider marine robot platform.

Liquid Robotics, *Advanced Technologies Intern*

Summer 2013

- Designed parts using Solidworks, requisitioned components, manufactured parts in-house using a manual mill, and cast resin parts for a prototype of a new waveglider capability.

Halcyon Molecular, *Intern*

Summer 2011

- Maintained order, cleanliness, and stock of the machine shop and electronics lab.

Senior Design, *2 Axis Computer Controlled Solar Tracking System*

Fall 2014

- Built Arduino controller to align solar panels within 10 degrees of orthogonal to sun.

FRC Mentoring: *Helping students design and build 120lb sports-playing robots in 6 weeks*

- Mechanical mentor, Team 3215, Team Prion, Greensboro NC

2011-2012

- Mechanical/CAD mentor Team 1329, Robo Rebels, St Louis MO

2013-Present

Personal Projects

CNC Retrofit

- Replaced 1980s era computer hardware with LinuxCNC on a homebuilt computer, rewiring axis drivers to an interface board and writing configuration code.

Robotic Coffeemaker

- Assembled a prototype automatic French press using repurposed consumer electronics.
- Designed code and electronics to control by Raspberry Pi computer from the Internet.

Skills

- Prototyping** – Design, assembly, precision measurement, and testing
- Machining** – CNC or manual mill, manual lathe, sheet metal tools, rapid prototype.
- CAD** – Solidworks, HSMWorks, SolidEdge, Autodesk Inventor
- Coding Languages** – Python, Arduino, Java, MATLAB, Mathematica, LaTeX.
- Computing** – Github, Linux, UNIX Terminal.
- Electronics** – Mathematic circuit analysis techniques, oscilloscope analysis, soldering.