

## Elizabeth Poss

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### Education

Harvey Mudd College (HMC) Claremont, CA

Expected May 2019

Bachelor of Science Engineering, Major GPA: 3.25; Overall GPA: 3.26

### Relevant Coursework

Experimental Engineering | Advanced Systems Engineering | Microprocessor Systems Design  
Engineering Mathematics | Electronic and Magnetic Circuits/Devices | Advanced Latin | Autonomous Vehicles

### Skills

*Software:* Matlab, SystemVerilog, Python, Java, Racket, R, Arduino, Solidworks, Microsoft Office

*Tools:* Scanning Electron Microscope, PCB Design, Lathe, Mill, Soldering Iron and SMD Soldering, Oscilloscope, Sterile Cell Culture

*Languages:* Latin reading and writing (proficient)

### Research Experience

*Engman Lab Cornea Project, Harvey Mudd College*

Spring 2016 - present

- Used electrospinning to create normalized nanofibers of varied composition, mimicking corneal structure. Investigated effect of extracellular matrix on corneal keratocyte protein expression.
- Presented work at the European Chapter Meeting of the Tissue Engineering and Regenerative Medicine International Society, Davos Switzerland, June 2017

### Project Experience at HMC

*City of Hope Clinic Project*

Spring 2017 - present

- In progress. Design, build, and test smoke evacuation systems for laparoscopic surgery.
- Integrate wireless camera systems into surgical trocars while maintaining low cost.

*Weather Controlled Cloud Light*

Fall 2017

- Developed a prototype cloud-shaped light simulating real-time weather like sunrise, rain, and lightning.
- Designed Verilog hardware decoding weather commands into LED actions transmitted via SPI.

*Engineering Design and Manufacturing Proctor*

Fall 2016 - Fall 2017

- Designed two labs exposing students to prototyping methods and mathematical modeling.
- Assembled, calibrated, and developed tutorials for a Stereolithography printer, Sherline Mill, and 3D Scanner.

*Autonomous Underwater Vehicle*

Spring 2017

- Worked in a team of 4 to design, build, and test an underwater AUV which measured changes in ocean temperature based on time of day, depth, and tides.

*Sleep Deprivation Buddy*

Fall 2016

- Competed in a hackathon with a team of 4 to design, build, and calibrate an interactive desk pet. Accepted user and environmental inputs, with pet health dependent on ambient light, encouraging healthy sleep habits.
- The project won second within the hackathon and was featured in the LA Times.

### Activities

*President, Mudd Makerspace*

Spring 2016 - present

- Reviewed and re-developed safety and management policies for the space.
- Developing workshops and events, advertise and promote the Makerspace. Facilitate individuals' projects.

*Organizer, Muddhacks (HMC Hardware Hackathon)*

Fall 2017 - present

- Facilitated logistics and organization. Aided teams in parts selection and hardware design decisions.
- Contacted sponsors, organized judging and mentoring team of industry professionals.