

# Hannah Cutler

Santa Barbara, CA | hannahcutler@ucsb.edu | (206) 488-8441 | [www.linkedin.com/in/hannahcutler-engineer](https://www.linkedin.com/in/hannahcutler-engineer)

## Education

---

### UC Santa Barbara

*Bachelor of Science (B.S.), Electrical Engineering*

Santa Barbara, CA

*Expected June 2027*

## Work Experience

---

### REU Researcher, University of California, San Diego – San Diego, CA

June 2024 – Present

- Selected as one of 10 participants from across the country to conduct engineering research in collaboration with Scripps Institute of Oceanography.
- Working in a 4-person team to develop the 3rd generation Smartfin, to collect and transmit oceanographic data in the coastal surf-zone.
- Implementing Python simulations to understand the effects of spectral artifacts on 3 different sensors.
- Investigate methods to register high-speed temperature changes through epoxy, fiberglass, and copper composites.

### Hardware Development Intern, Hikari Medical Technologies – Santa Barbara, CA

Jan 2024 – Present

- Utilizing iterative design process to propose and improve a functional and wearable 3D printed housing for the device, to align lens, 3 interchangeable laser diodes, and sensor.
- Designing and improving PCB and accompanying 3D printed case to best align with experimental needs. Ensure that all
- Designing and printing 3 separate resin molds for PDMS microfluidic devices. Manufacturing microfluidic devices with 2x2 channels as needed for ex

### Controls Hardware Member, Formula SAE – Santa Barbara, CA

Oct 2023 – Present

- Utilizing wiring harness software RapidHarness to collaboratively design and manufacture a functional and cost-efficient wiring harness for final car in a team of 3.
- Translating wiring harness diagrams from software to ordering list, utilizing CAD models to ensure correct wire length measurements.
- Leveraging Fusion360 to design printed circuit boards (PCBs), combining 2-3 sensors into a board. Maintain PCB design best practices to uphold uniformity with Gaucho Racing designs.

## Leadership Experience

---

### External Vice President, SWE-UCSB – Santa Barbara, CA

May 2024 – Present

- Contacting and maintaining relationships with 90+ companies to support club finances and networking opportunities
- Proposing and instituting new initiatives such as SWE Tech Team @ UCSB that work to close the gender gap in engineering graduates.

## Projects

---

### 3-Dimensional Virtual Keyboard

- Proposed and cooperatively designed gloves with 2 integrated GPU-6050's and 5 flex sensors to calculate data feedback and play 108 corresponding keyboard notes using an ATmega328P MCU.
- Arranged prototype breadboards to facilitate easy debugging. Researched, wrote, and debugged code in C++.

## Technical Skills

---

Python, C++, LaTeX, Java, Fusion360, AutoCAD, Altium, through hole and SMD soldering.