

Jack Driscoll-Natale

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EDUCATION

B.S. Computer Engineering
Certificate in Technology Management

Sept. 2024 - June 2028

University of California, Santa Barbara

PROJECTS

Low-Cost, IoT Water Monitoring System. Patent-Pending. *April 2022 - Present*

- Optimized existing **embedded technology** for community-focused water monitoring.
- Developed a high-frequency **wireless system** to minimize maintenance and labor.
- Designed **C++** firmware for **ESP8226** and **HTML/CSS** website for public-access data.

Collaborating with a marine robotics company, BlueRobotics, to develop a submersible ROV with my firmware and circuits. We were awarded a **grant** for low-cost ocean tech.

Split Keyboard PCB Design and Firmware *November 2024 - December 2024*

- Conceptualized and designed 2-layer PCB from custom symbols and footprints I designed based on component documentation. Utilizing KiCAD.
- Developed firmware from scratch utilizing C++ to directly communicate with processor ports, including direct I2C and USB communication.

AWARDS

April 2022 - Sept. 2024

- 3rd Place Overall, AmericasX International Invention Convention.
- International Science and Engineering Fair Finalist and Awardee.
- \$1,000 Raytheon 'Connectivity' Award and Patent-Application Award at National Invention Convention.
- Research grant from Stanford and Monterey Bay Aquarium Research Institute

HIGHLIGHTED WORK EXPERIENCE

June 2023 - Present

Lighting Designer and Technician - Scotts Valley Community Theater

- Lead a team of interdisciplinary technicians designing and operating.
- Combining personal-experience in theater and dance with technical skills to creatively design lighting displays for 10+ plays, musicals, and dance performances.

SKILLS

PROFICIENT in: C++, Circuit Design (KiCAD) and Testing, Git
FAMILIAR with: IoT Embedded Systems, Python, UNIX/Bash