

Yves Mojica

sebastianYSM12@gmail.com | 818-318-4085 | Portfolio | github.com/Yves-M22

Education

University of California, San Diego

– Bachelor of Science in Computer Engineering, GPA: 3.19

September 2022 - (Expected) June 2026

Projects

New Member Project | Rocket Propulsion Lab

October 2022 - May 2023

- Led a team of 5 to design a small-scale rocket using, 3D printed parts, and an avionics system by assigning tasks and communicating effectively
- Designed an avionics bay in Solidworks to house an Arduino nano, altimeter, and a battery that could slide inside our rocket and stay secured

Hermes Avionics | Rocket Propulsion Lab

September 2023 - Present

- Assisted in developing the avionics bay to create a system that could transmit/collect data and release recovery parachutes for the organization's solid propellant rocket
- Developed code for various sensors on Arduino and ESP32 in C++ for flight data collection of altitude, temperature, location, and acceleration to be transmitted via radio/stored in an SD card
- 3D printed avionics system parts, soldered wires/cables and various components onto PCBs
- Collaborated with other members of the team to determine design choices that worked with other systems on the rocket

Radio Telemetry Tracking | E4E

November 2024 - Present

- Worked in a research project team called Engineers For Exploration to help develop technologies for local organizations like the San Diego Zoo
- Sketched and designed an updated CAD with Solidworks for our drone payload to house different electrical components and manage wiring for the RTT project

Line Following Robot

November 2022 - December 2022

- Developed a small robot with a team of four to navigate through tracks of black tape using photoresistors, with our design excelling at speed/accuracy in looping tracks
- Designed a chassis for the robot using onshape to be able to hold more components together and a shield portion to prevent external light from interfering with the photoresistors
- Wired and soldered the circuit boards with the Arduino to help create the electronics for the robot

Activities

Safety Officer | Rocket Propulsion Lab

January 2025 - Present

- Led safety reviews for my team and ensured safety practices for any manufacturing process done.

Vice President - Finance | Rocket Propulsion Lab

April 2025 - Present

- Organized and managed purchase orders for all of our projects at RPL
- Communicated with team leads and advisors about budgets or other financial concerns

Skills

Programming: C, C++, Java, MATLAB, HTML/CSS, LaTeX, SystemVerilog

Technical: LTspice, 3D printing, Arduino/ESP, CAD Onshape, Solidworks, Git, Microsoft Office

Equipment: Function generators, Oscilloscopes, Multimeters, Soldering irons, Power Supplies