

EDUCATION

BS, Electromechanical System Engineering Technology - GPA: 3.44/4.0

Expected May 2023

California State Polytechnic University, Pomona

SKILLS

C++
Excel
NI MultiSim/PSpiceSolidWorks
MATLAB/Simulink
ANSYSAutoCAD Electrical
Python
Ender 3 Pro**WORK EXPERIENCE**

Project Intern - Components Assembly

Maury Microwave | Ontario, CA

June 2022 – August 2022

- Provided quality control by testing over 8,000 coaxial cables by applying torque to find any defects from manufacturer
- Removed and reapplied heat shrink tubing for coaxial cables that had incorrect serialization to reflect correct serialization

MEP-WiSE Summer Associate

June 2022 – August 2022

Cal Poly Pomona Foundation Inc. | Pomona, CA

- Assisted incoming freshmen and transfer students for a summer orientation program via frequently contacting students, planning activities, and presentations
- Created interactive master spreadsheet on Google Sheets to keep track of student participation

SPECIAL PROJECTS

Senior Design Project - JUCI Unfolding Mechanism for Space Telescope

January 2022-Present

- Senior Design Project supervised mentors from JPL University Crowdsourcing Initiative (JUCI) and faculty advisor. Project aims to optimize and innovate the deployment mechanisms involved in space telescopes
- Lead electronics engineer, responsible for electronic selection, wiring diagrams, and software development
- Project management via updating Gantt Chart, meeting logs, delegating tasks, and scheduling

Northrup Grumman Collaboration Project - Embedded Software

August 2022-Present

- Working with a multidisciplinary team as driver dev to design and implement an Unmanned Ground Vehicle
- Utilizing STM32Cube IDE to develop code in C to communicate with the STM32 microcontroller

Match 3 Puzzle Solver Robot

January 2022-Present

- Developed code in C++ that detects matches of three or more in any sized 2D array
- Currently researching integration methods for path finding algorithms to find optimal movement paths while containing the greatest number of matches
- Designing a Cartesian Coordinate robot to execute the movement path algorithm

Two-Stage Reverted Gearbox

August 2022-December 2022

- Collaborated with classmates utilizing CAD to design and assemble a two-stage reverted gearbox with gears, pinions, shafts, and bearings
- Calculated the factor of safety, bending/contact stresses, velocities/loads of mating components through Excel
- Utilized rapid prototyping via 3D printing to validate theoretical gear and pinion calculations

3 Degree of Freedom Robotic Arm

August 2022-December 2022

- Designed and assembled robotic arm using servo motors for revolute joints as rotational movement
- Developed code in C++ to control individual servo motors to perform forward and inverse kinematics

Refurbished Li-ion Battery Pack

July 2021-August 2021

- Salvaged Lithium-ion batteries from used Zoll LifeVest 4000s
- Stripped down batteries in casing to individual cells then proceeded to test battery voltage, recharge, and heat-shrink exposed batteries to be later resoldered, wired, and wrapped into a pack