NOAH DILWORTH

noahdilworth517@gmail.com – (510)708-0354 – San Diego, California –
https://portfolium.com/ndilwort

EDUCATION

University of California. San Diego
Sep 2019 – Jun 2023
B.S Mechanical Engineering
La Jolla, California

- GPA: 3.432

PROJECTS

SEDS UCSD: Halya Rocket
MATLAB, ANSYS Fluent, Eagle, CAN, esp32
A methalox rocket participating in the FAR Mars challenge. I programmed a flight simulation program in MATLAB, helped design the pressurant system, and worked on the design of a CAN-based valve actuation PCB with power monitoring and failure detection.

SEDS UCSD: Bombardier Rocket
Solidworks, Eagle, Pressure Transducers, Thermocouples
https://portfolium.com/entry/bombardier-monopropellant-aerospike-rocket
A rocketry team project consisting of a hydrogen peroxide powered aerospike rocket. I worked on CAD for the structure of a test stand, P&ID of the propellant feed system, and led the electrical subteam in the design of data acquisition and valve actuation systems.

Punch-Activated Flamethrower
Arduino, C/C++, Fusion 360, gas fittings, IMU, solenoid valves
https://portfolium.com/entry/punch-activated-flamethrower
A butane 'flamethrower' prop based on Arduino utilizing an IMU for punch detection and actuated by an optoisolated solenoid valve and arc lighter

Space Invaders Controller
esp32, Python, Bluetooth, UDP sockets, IMU
https://portfolium.com/entry/space-invaders-controller
An esp32-based motion controller which communicates with a pc running a Python-based version of the game 'Space Invaders'

Geneva Drive
Fusion 360 CAD/CAM, Bridgeport Mill, Lathe, Tormach CNC mill and lathe
https://portfolium.com/entry/geneva-drive-2
A machining project making use of CNC and manual milling and turning.

SKILLS

- Programming: C, C++, MATLAB, Python, Git
- Simulation: ANSYS Fluent, ANSYS Structural
- CAD/CAM: Solidworks, Fusion360 modeling and CAM
- Fabrication: CNC and Manual Milling and Turning, 3D Printing, Laser Cutting
- Electrical: Autodesk Eagle, Soldering, Oscilloscope