

Benjamin Luftig

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TECHNICAL EXPERIENCE

Robotics & Mechanisms Laboratory, ROMELA

Undergraduate Researcher 2024-Present

- Designed, built, and tested chassis designs and testing apparatus to create a spring-cable system that minimized interference for testing a monopod robot
- Iterate on a secure fastening system for the power delivery system and accompanying hardware

Rocket Project

Prometheus Ground Systems Lead 2023-2024

Ares Ground Systems Member 2024-Present

- Lead record breaking team, reaching 14000 feet and 3 hot fires
- Responsible for the planning, development, and creation of the Ground Systems for a hybrid rocket
 - Cut costs by 30%, integrated pneumatics system to fill table, while minimizing pressure losses and allowing for modularity
 - Transitioned the system from NPT to AN fitting to minimize cost and simplify leak checks
- Organized a team to complete tasks while making accommodation for academics and budget

The American Society of Mechanical Engineers, Fabrication and Design Essentials

Member 2023-2024

Mentor 2024-2025

- Mastered CAD and other design systems to create detailed models
- Presented projects to industry officials and used feedback to iterate on designs
- Organized and taught fellow students engineering basics such as CAD, soldering, and 3D printing

X1 Robotics

Power Systems Subteam Lead 2023-2024

- Budgeted, and designed power systems for an autonomous quadruped
- Created a standardized testing setup for motors quantifying power-usage, weight, and cost

Chassis Subteam Lead 2025-Present

- Led team to design the propulsion, actuation, and shell of a spherical robot
 - Modeled spherical motion, magnetic calculations, and material simulations

EDUCATION

University of California, Los Angeles
Aerospace Engineering Major

Junior (GPA: 3.4)

Skills:

Programming & Design: Matlab, Python, R, Java, Arduino, SolidWorks

Project Management: Microsoft Office Suite, Google Suite, Time Management