

Rowan Jansens

Mechanical Design Engineer

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Education

Olin College of Engineering

BS in Mechanical Engineering (GPA 3.9)

Needham, MA

September 2021 - May 2025

- **Relevant coursework:** Solid Mechanics, Mechanical Analysis, DFM, FEA, Thermodynamics

Skills

- **Fabrication:** Mill (CNC & Manual), Lathe, Laser/Water-jet/Plasma cutting, Welding, Injection Molding, Composites
- **Software:** SolidWorks, Onshape, Ansys, NX, Fusion 360, HSM Works, Adobe Illustrator, DaVinci Resolve
- **Programming Languages:** MATLAB, Python, C, C++, \LaTeX
- **Personal Interests:** FPV Drone Freestyle, Video Production, Additive Manufacturing

Experience

Formlabs

Somerville, MA

Mechanical Engineering Intern (SLS)

June 2024 - August 2024

- Leveraged iterative design and testing to explore design spaces, produce prototypes, and quantify design success
- Collaborated with engineering and industrial design teams to define system requirements and project direction
- Performed tolerance analysis and parameter-sweep tuning to improve part fit and function
- Worked with overseas manufacturers to implement design revisions and responded quickly to production line feedback

SpaceX

Hawthorne, CA

Engineering Intern (Crew Starship)

May 2023 - August 2023

- Exercised extreme ownership over crew-controls sub-system by balancing independent and delegated workloads
- Used industry-standard tools to design and manufacture different fixtures and electromechanical test machines
- Worked with various external vendors to obtain hardware samples for system trade studies
- Planned and executed environmental survivability tests (thermal/vacuum/vibration) to assess hardware reliability

Olin Electric Motorsports (Formula SAE Electric)

Needham, MA

Mechanical Design Lead

September 2021 - Present

- Managed productivity on 30-person engineering team by organizing meetings/design reviews and delegating tasks
- Created part drawings and used a range of fabrication tools to manufacture components to their specified tolerances
- Engineered [chain-tensioner mechanism](#) to support power transmission between electric motor and rear differential
- Developed analytical simulation tools to inform battery cooling architecture and custom fuse design
- Validated model parameters and performance with thermal FEA, real-world testing, and data fitting

Olin Rocketry (Spaceport America Cup)

Needham, MA

Avionics Lead

September 2021 - May 2024

- Designed tightly packaged [avionics suite](#) with custom PCBs, aluminum support structure, integrated battery pack, and unified wire harnessing and retention mechanisms
- Implemented and tuned flight control software to detect rocket apogee using Kalman filtering and a suite of digital components including a 9-axis IMU, barometric altimeter, and Teensy 4.1 microcontroller
- Validated system reliability with ground testing and showcased in-flight performance on launch to 1,600 ft
- Established [TelePy](#), an open-source ground-station GUI used to visualize and log avionics flight data in real-time

High-Performance FDM Printer

Needham, MA

Personal Project

May 2023 - August 2024

- Carried out trade studies on printer architectures, using hand calculations, thermal/static simulation, and prototyping to justify all major design choices and evaluate requirement satisfaction
- Performed product-wide DFM optimizations by leveraging water-jet cutting to reduce cost and part count
- Built jigs and fixtures to simplify machining operations, bend sheet-metal parts, and perform part strength testing