

Matthew Lasselle

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Education:

Iowa State University

Bachelor of Science, Mechanical Engineering
Cumulative GPA: 3.42

Ames, IA

Expected Graduation: May 2026

Clubs and Extracurricular Activities:

Cyclone Rocketry Club

Mechanical Co-Team Lead

Ames, IA

August 2024 – Present

- Lead a 5-person of student engineers through the design and fabrication of a high-altitude piston canister with an integrated burst disk.
- Directed the analysis of the high-altitude piston canister using SolidWorks FEA to optimize the weight and size.
- Headed 12 hydrostatic ground tests of the high-altitude piston canister to ensure safe operation.
- Managed the coordination between various sub-teams to ensure the piston canister was properly integrated with the competition rocket.

Honeywell FM&T Rocketry Student Launch Contract Team Member

August 2024 – Present

- Performed SolidWorks FEA analysis on flight components and used ANSI standards to tolerance avionics bulkheads.
- Responsible for design of avionics housing and coupler with focus on ease of removal and manufacturing.
- Presented avionics housing and coupler designs to external vendor sponsors for approval.

HPR Chair Lead

July 5, 2023 – June 23, 2024

- Managed a \$4,000 club budget, while overseeing distribution of club merchandise.
- Taught 9 classes for student engineers that focused on design, construction, and simulation of high-powered rocketry.
- Provided guidance through numerous aerospace related certifications.

Projects

June 2020 – Present

- Built a tensile tester and conducted material testing on 3D printed specimens to evaluate and document mechanical properties with different layer orientations.
- Engineered a fully 3D printed piston ejection system, applying material data to validate structural integrity and ensure reliable performance under high-pressure conditions.
- Designed and tested 4 3D printed combat robots, optimizing chassis geometry to enhance impact resistance and minimizing stress concentrations.

Work Experience:

City of Maple Grove – Utilities Department

May 20, 2024 – August 16, 2024

- Responsible for service and maintenance of 20 fire hydrants, 300 emergency water shut off valves, and 250 manhole covers.

Iowa State University - Lab Assistant

September 26, 2023 – February 1, 2024

- Responsible for service, repair, and maintenance of 2 rheometers to ensure optimal functionality and measurement
- Researched and identified 4 repair parts to order from system vendor.
- Set up 2 vendor meetings to address system requirements and obtain quotes for new systems for lab manager.

Menards - Sales Representative – Electrical & Lighting

July 2020 – July, 2023

- Responsible for customer support in identifying and finding items in the department, stocking shelves, and light installation.

Certifications:

- Tripoli Level 2 High Powered Rocketry Certification #24629

Issued May 2023

Technical Skills:

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| • SolidWorks CAD | • SolidWorks FEA | • CNC Milling and Routing | • Fusion 360 CAM |
| • 3D Printing | • Microsoft Excel | • Microsoft PowerPoint | • Microsoft Word |