

THOMAS WILLIAM COLLINS

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To whom it may concern at the Jet Propulsion Laboratory,

My name is Thomas Collins and I am a Junior at the University of New Hampshire studying Engineering Physics with a concentration in Mechanical Engineering. I began my Engineering Physics degree in Orono, at the University of Maine, where I studied for three semesters, before transferred directly to the University of New Hampshire. I believe that with my education and experience I would be a strong candidate for the position.

Throughout my collegiate career I have gained experience through;

- Experience with design and analysis of a Hybrid Rocket capable of 300 lbs. of thrust through the Students for the Exploration and Development of Space.
- Working as an Engineering Intern at TURBOCAM, INC.
- Working as an Undergraduate Research Assistant at Nuclear and Particle Physics Group Laboratories.
- A strong academic foundation through Engineering Physics and Mechanical Engineering Courses.

To expand upon one of these points, design and analysis of a Hybrid Rocket for the Students for the Exploration and Development of Space. SEDS is an international organization specializing in the promotion of space exploration through education and engineering. Currently our chapter is in the manufacturing and testing phase of making a hybrid engine and our first high power rocket. I oversee the fabrication of our rocket frame, ensuring its structural capabilities regarding interior propulsion and avionic components and exterior aerodynamic forces. This design process incorporates simulation, modeling and computational analysis of each element of our rocket. The use of CAD modeling and FEA has been essential in this project through design and structural analysis. The work that I have accomplished through SEDS, TURBOCAM, and projects I have worked on throughout college can directly relate to future work at JPL.

For more information: <https://unhseds.org/>

Thank you for taking the time to review my application, I look forward to hearing back from you. If you have any questions about my Resume, Cover letter, or application please reach out to me and I will be happy to fill in any potential gaps.

Sincerely,
Thomas William Collins