Charlie Nitschelm

Space and Engineering Portfolio

**UNH Students for the Exploration and Development of Space (SEDS) 2017-2018 Rocket Compilation Video:**

During the beginning of our first year as an engienering organization, we had no idea how to build a rocket. We spent the year learning rocket building techniques and optimizing our flight simulation software using MATLAB. The video below is the culmination of our work to finally reach a successful multi-stage launch in preperation for the University Student Rocketry Competition in the Fall of 2018.

<https://www.youtube.com/watch?v=l3QVM1bIWs8>

**UNH SEDS University Student Rocketry Competition Launch – September 29th**

The culmination of our entire organization led us to this launch video below. Although it did not go perfectly, the failures we experienced were calculated risks that needed to be taken to compete. Rocketry is a noble pursuit. It is the truest profession in which failure directly leads to success. It can become discouraging that failure has been experienced more than success, but it has only pushed us more to prove that we are capable of achieving greatness. We would like to thank SEDS for organizing this competition as it has guided us to finally become rocketeers.

<https://www.youtube.com/watch?v=qhKtFAfzMnM>

**Propeller, CO2 and Rocket Powered Baby Crib Car Video:**

Over the summer of 2018 in Washinton DC, I took many classes at The Foundery in Baltimore, Maryland on welding, machine shop skills, 3 axis CNC milling, and waterjet. The culmination of this work (and some weekend free time) lead me to make this project linked below with a friend I made there, James Arnold.

<https://www.youtube.com/watch?v=nGd9a4myZ-8&t=9s>

**Xploration Station’s 2018 Student Astronaut Video:**

My submission to Xploration Station to become the 2018 Student Astronaut. With so many amazing aerospace museums in the DC area over the 2018 summer, I needed to take advantage of it!

<https://www.facebook.com/xplorationstation/posts/1939978696069183>