PROJECT OVERVIEW

We were granted $300 three months ago, in February, as a part of a "kickbox" project at our school to develop rocket recovery and flight data devices.

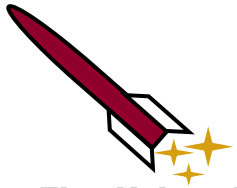
In the time we've had to work we've built:

- **An altimeter**
- **A parachute**
- **An electronics bay**
- **A way to hold a video camera inside our nosecone**

WHAT ELSE WE'VE BEEN WORKING ON

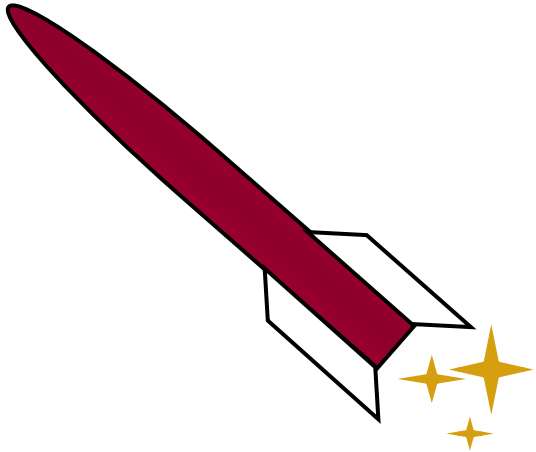
Our current goal for the rocket team is to enter the basic division of the intercollegiate Sounding Rocket competition held in Utah the summer of the next academic year. The goal of the competition is to build and launch a rocket carrying a ten pound payload to a height of 10,000 ft. The design of our final rocket is going to be about seven ft. tall with an L-motor when it's completed.

This is the rocket team's first year at Elon, so this has been a big learning experience for all of us. As of yet we've completed a 1/5, 1/4, and 1/3 scale of our final rocket. Currently we're finishing up our ½ scale rocket and preparing to launch a few days from now.



Elon University
Rocket Team
Our Project Page:
https://hackaday.io/project/9707-rocket-recovery-and-flight-data-systems

Elon Rocket Team



PHOTOS OF OUR WORK

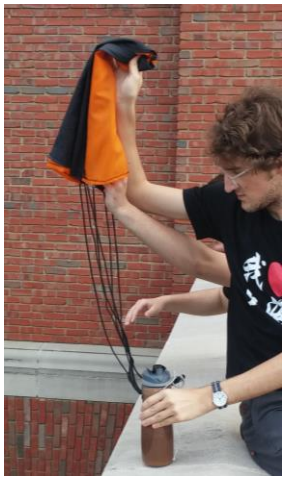
Early rockets and our 1/5 scale (in red).

Our 1/3 scale

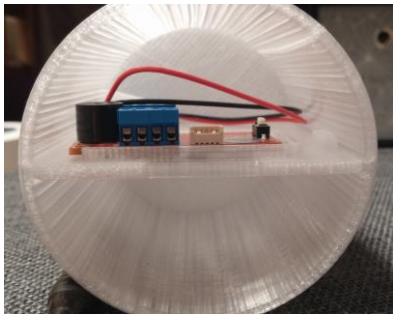
Our ½ scale

Our ¼ scale

Window in nosecone for camera



Parachute testing



Electronics Bay

PROJECT SPECIFICS

Our altimeter is based off of an Arduino system, and works by taking the barometric pressure of the atmosphere. It is currently working (after a month of troubleshooting), but unfortunately the display doesn't work quite yet.

Our parachute is made from rip stop nylon and was made for our ½ scale rocket. It may possibly be used as a drogue chute for our final rocket.

Most of our rocket parts are designed by us and 3D printed at the Maker Hub in our school. As of yet, all of our nosecones, motor housings, and fins (except for the fins of the ½ scale) are 3D printed. The electronics bay is also 3D printed.

For more information about us and what we're working on, or what we'll be working on next, visit our project page at: https://hackaday.io/project/9707-rocket-recovery-and-flight-data-systems

CONTACT INFORMATION

Project Manager: Keeley Collins- kcollins24@elon.edu

Team Leader: Julia Filloon- jfilloon@elon.edu

Team Liaison: Adam Thomson- athomson7@elon.edu

Lead Designer: William Kakavas- wkakavas@comcasat.net

Secretary: Michael Dryzer- mdryzer@elon.edu

Parachute Consultant: Henry Davis- hdavis10@elon.edu

Electronics Consultants: Michael Macalino, Chris Brittlebank, and Alex Zaterka