

Explorer Post 1010 Team 8186 Research Presentation

Written and Edited by Team 8186



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Design and Construction Process

- We used a PNC-80k nose cone
- Due to weight we used a F24-4W motor
- We designed our own fins
- BT80 body tube
- We purchased three 70" x 7"
- Rocket parts were chosen due to cost and supply
- Rocket was built with tools such as sandpaper, glue, and drills
- RocketSim Program was used as an aid in the design process



Teamwork

- The team worked together on building the rocket.
- Jon constructed the body tube
- The construction of the egg compartment was mainly done by Disa, Ben and Mattie
- The streamers were ironed and shaped by Samantha and Becca
- Disa and Kathleen worked on the fins



Flight Testing Process

- First fin design caused the rocket to spiral up.
- First egg compartment was too heavy and had to be rebuilt

[Post 1010 Team 8186: Launch](#)



Lessons learned

- A weight concentration towards the center of the rocket will cause it to descend with a horizontal tilt, increasing flight time
- Time is not to be underestimated
- Flight inconsistency may be controlled by adjusting rocket's mass

