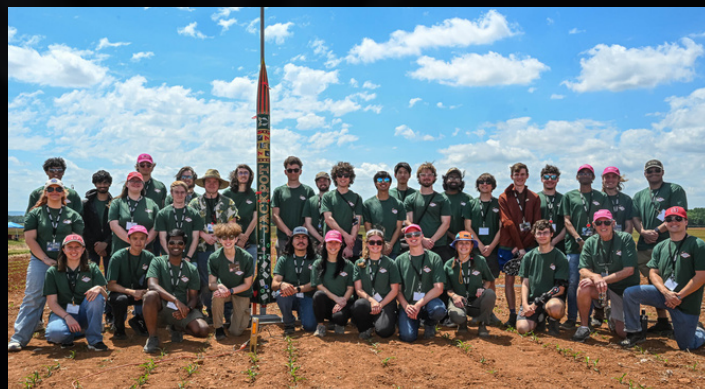




NC STATE HIGH-POWERED ROCKETRY CLUB

OUR TEAM

Founded in 2009, the High-Powered Rocketry Club at NC State University offers students from all majors and backgrounds real world experience in the research, design, testing, and launching of high-powered rockets. Our primary goal is to show students that "rocket science" is a lot easier than they might think and all it takes is passion and a desire to learn.



OUR COMPETITION

Starting 2027, the club will be competing in the International Rocket Engineering Competition (IREC), a prestigious event where student rocketry teams from across the world compete to launch high-altitude rockets. Scoring is based on the quality of engineering design, the accuracy of the rocket's flight relative to the target altitude, the successful recovery of the vehicle, and the performance of payload systems.

OUR MISSION

One of the club's core values is educating students, from the college students within our club to K-12 students in the community. Our award winning outreach program prioritizes an emphasis on STEM education to students of all ages, and our club actively strives to spread a love for STEM through rocketry to those around us. Tacho Lycos reached over three thousand North Carolina students during the 2025-2026 academic year



NC STATE

HIGH-POWER ROCKETRY CLUB





ROCKETS & PROJECTS

PREVIOUS YEAR'S COMPETITION ROCKETS:

JACKPOT (2025-2026)

- 3rd place overall nationally
- 1st Place altitude Award
- 1st Place STEM Engagement Award
- 1st Place Best Looking Rocket



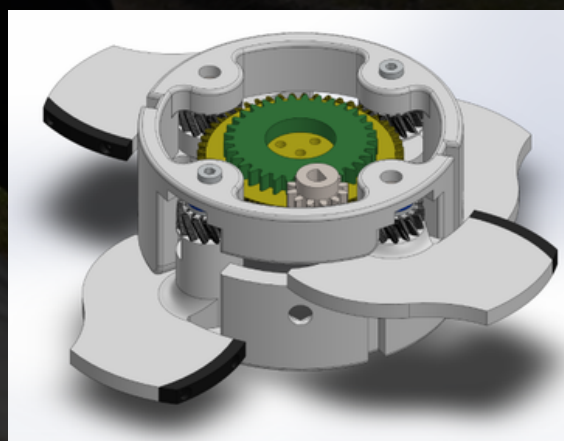
PELICANATOR (2024-2025)

- 2nd overall nationally
- 2nd Place AIAA Research Launch Vehicle Innovative Payload Award
- 1st Place Project Review Award
- 2nd Place Safety award

SHAKE AND BAKE (2023-2024)

- 5th overall nationally

RESEARCH AND DEVELOPMENT PROJECTS:

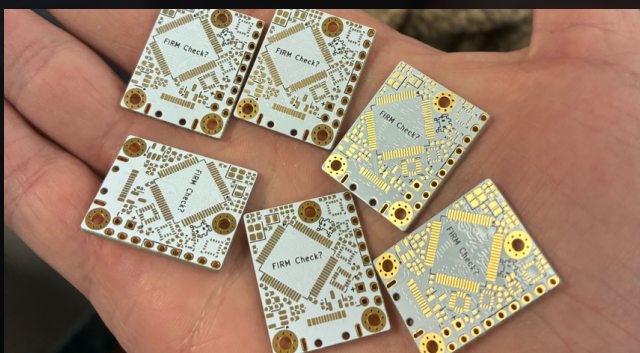


Air Brakes, began development 2019

AIR BRAKES

ACTIVE APOGEE CONTROL

An apogee targeting system that deploys retractable flaps to increase drag and reduce altitude, helping achieve the target apogee. Developed for the NASA Student Launch to improve scoring by enhancing apogee accuracy.



FIRM, began development 2025

PROJECT FIRM

FILTERED INERTIAL ROTATION MODULE

A multifaceted solution to address pain points in payload development and airbrake development. It is a custom-designed PCB with hand-picked sensors to perform data collection during rocket flights and process the data through a Kalman Filter for high accuracy.

OTHER VEHICLES:

TWO STAGE CUSTOM AIRFRAMES

Project Barbenheimer was our club's first staged rocket and one of our first rockets made using composite wet layups. It helped pave the way for our 2025-2026 senior design rockets which are also made using composites.

SUPERSONIC ROCKET

Our first supersonic rocket, built with a fiberglass airframe and carbon fiber-reinforced sandwich composite fins with a birch core. It flew successfully to Mach 1.4 in 2023 and Mach 2.0 in 2024 with apogee around 10k and 15k feet respectively.



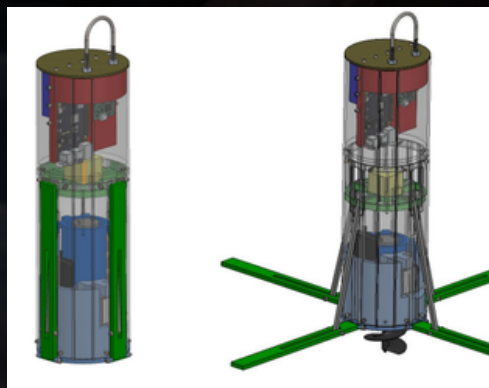
TACHO LYCOS 2026-2027

THANK YOU FOR YOUR SUPPORT!

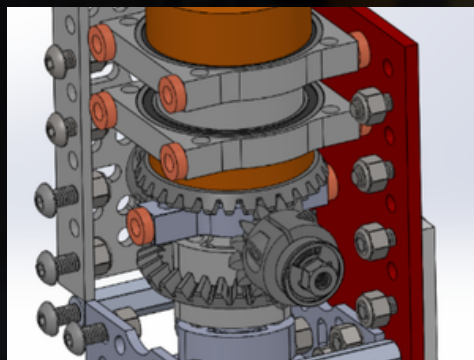
We look forward to you enhancing the High-Powered Rocketry Club experience for NC State's students through sponsorship support. All funding directly supports our rockets and their components. Thank you for your time and consideration and we hope to be in contact.



Squakit - Launched 2024 and 2025



Zombie/ Grave
Payload NASA SL 2026



Sail - NASA SL Payload 2025

SPONSORSHIP TIERS

Invitation to Competition			
Invitation to Test Launch			
Apparel Feature			
Rocket Body Feature			
Sponsor Showcase Invitation			
Social Media Feature			
Website Feature			
Weekly Newsletter Feature			
	Small Logo	Large Logo	Large Logo
	2"x2" Logo on Stand Base	4"x4" Logo on Rocket Body	6"x6" Logo on Rocket Body
	BRONZE \$500+	SILVER \$1500+	GOLD \$3000+
			PLATINUM \$5000+

The High -power rocketry club is a 501(c)(3) nonprofit organization.

All monetary and material contributions are tax deductible. Our tax id is 27-2003041. We are happy to assist with any donation and benefit logistics when sponsoring our team.
Benefits stack over years of support.

