ADVANCED ROCKETRY CLUB

SPONSORSHIP PACKET

WHO WE ARE

The Advanced Rocketry Club is a student led group based at the University of North Dakota in Grand Forks, ND. We are a multidisciplinary group comprised of members of all backgrounds with a passion for rockets and everything that goes into the design, build, and launch of them. Every year, the Advanced Rocketry Club constructs high powered rockets for competition, as well as work on the continuous development of our liquid fueled lander project.

Our yearly competition is the Spaceport America Cup, an international rocket engineering competition based out of Spaceport New Mexico. The competition involves 150 teams from around the world involving 20 countries representing 6 continents. The goal of this competition is to launch a student built rocket to a predicted apogee within two height classes, 10K and 30K feet. The competition allows for the use of both commercially purchased rocket propellant, and student researched and designed rocket propellant (Solid, Hybrid, and Liquid fuels are available for the student researched categories).

Our continuous development based competition is the Collegiate Propulsive Lander Challenge. This is a student challenge with the goal of creating a liquid fueled propulsive lander to complete a 50 meter hop test as well as various milestones along the way of development. Teams competing in this challenge are pressed to develop skills and systems in control dynamics, propulsion systems, guidance navigation and control, and many more.

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SPONSORSHIP INFORMATION

BELLOW ARE THE RECOMMENDED SPONSORSHIP AMOUNTS - ANY AMOUNT IS APPRECIATED

ADVANCED ROCKETRY CLUB

	BRONZE $500	SILVER $1,000	GOLD $2,000	PLATINUM $5,000+
NEWSLETTER	✓	✓	✓	✓
LOGO ON WEBSITE	✓	✓	✓	✓
SOCIAL MEDIA POST		✓	✓	✓
LOGO ON APPAREL		✓	✓	✓
LOGO ON ROCKET			✓	✓
DEDICATED VIDEO				✓
LOGO IN OUR LAB				✓

THIS YEARS COMPETITIONS

Spaceport America Cup

This Year our team will be competing in the 30,000 ft. Commercial off the shelf category. With the following goals:

- Reach an altitude of at least 30,000 feet and obtain a final altitude within 100 feet of our estimated call out altitude.
- Obtain a maximum vehicle speed of at least Mach 2 to investigate the effects of supersonic heating on our flight vehicle
- Construct our flight vehicle utilizing a custom carbon fiber winding process
- Track our flight vehicle through all stages of flight using GPS and Radio frequency transmissions
- Obtain live video broadcast throughout all stages of flight over a 5 GHz signal to air live during the competition

Collegiate Propulsive Lander Challenge

Our team is participating in its first year in the Collegiate Propulsive Lander Challenge. We will be focusing on the first milestone in the competition to develop a vectoring liquid rocket engine, as well as the following goals:

- Develop a proprietary design of a regeneratively cooled liquid rocket engine
- Construct ground support equipment to facilitate fueling and data acquisition for testing of liquid propelled rocket engines
- Design, build, and test a half scale lander utilizing an EDF motor to verify PID control loops
- Complete the first round of hot fire testing with a first version of our engine

WHY SPONSOR?

Our group is completely funded through donations and external grants and sponsorships. We need your help to continue to develop rocket engineering and to provide an opportunity for our members to gain skills critical to any workspace. By supporting us, you gain exposure throughout our on campus community as well as nationally at our competitions and on our webpage.

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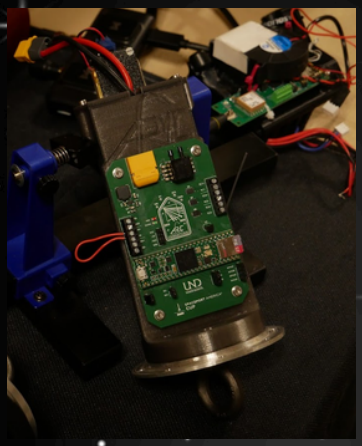

THANK YOU!

FOR SUPPORTING THE ADVANCED ROCKETRY CLUB

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