

CASE ROCKET TEAM



Sponsorship Information

2021-2022



What is Student Rocketry?



Student rocketry is an organized series of rocket launches, with teams competing to achieve various objectives and building amazing rockets. Student rocketry is a way for students to gain fundamental design experience and skills necessary for not only a rocket competition, but for real-world engineering problems.

As students in rocketry, we see our participation as a valuable opportunity to learn the principles of design that many of us will carry forward into our careers. Everything from team dynamics, management, design, good engineering practices, and workflow comes out of the need to organize a group of people to compete at these events. This is valuable even to those who don't pursue a career in engineering. Everyone can learn something.

Student Rocketry is also a great way to connect to aerospace companies and government organizations, engineering firms, student peers, and academic resources. Many of the biggest competitions in the field attract groups like SpaceX and NASA. Networking opportunities like these are a great way to get a foot in the door to these places for many students. The knowledge we gain and the connections we make can carry us forward to be leaders in engineering.



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Who are we?



Case Rocket Team (CRT) is the high power student rocketry team at Case Western Reserve University. We are a multidisciplinary, student led group that focuses on researching and designing rockets to compete in various competitions. We design, fabricate, and launch our rockets to several thousand feet.

Operating under the purview of the National Association of Rocketry (NAR) and the Tripoli Rocketry Association (TRA), CRT seeks to train members in researching, designing, fabricating, and testing engineering projects. We want our members to grow and develop their communication and team skills. We also seek to help our members improve creative thinking and problem-solving. But most importantly, we want to launch some rockets!

Due to the nature of our focus, we are constantly changing and adapting to new circumstances, new challenges, and new ideas. We compete in the [Spaceport America Cup](#), the largest and most challenging student rocketry competition. This competition challenges us to launch a rocket as close to 10,000 ft as possible while carrying a nine pound scientific or technical payload. **Find us at caserocketteam.org.**



What are we working on this year?

Despite the challenges last year presented by the pandemic, we were able to push the club further than we had ever gone before. Not only did we help three members achieve their level two high powered certification, we were able to design and manufacture two test rockets and perform multiple flight tests. From these, we learned lots of valuable lessons and were able to design our full-scale competition rocket for the 2021 Spaceport America Cup competition (ESRA). Though the in-person competition was cancelled, we participated in the virtual competition by submitting and presenting our design report. In addition to being selected for a podium session to discuss our work on a RAM air parachute-guided payload, our team was awarded 3rd place out of 36 in our competition category.

This year, it's all about implementation. From integrating our Airbrakes system for dynamically controlling altitude to improving our payload deployment method for safe and reliable recovery, we have a lot of work ahead of us. Initially, we will be building two test rockets. The first will allow us to evaluate the functionality of our Airbrakes system. The second will help us verify the reliability of our payload deployment method. This year we will also be focusing on developing the second iteration of our parafoil-guided payload that will autonomously descend to a predetermined position on the ground. Finally, we will be focusing on uniting all of our individual components and systems into one comprehensive full-scale rocket that we will use to compete in the ESRA competition later this year.

While these larger projects are going on, we will also be investing in internal small-scale project development. This year we will be investigating autonomous vehicle tracking, a custom-built launch control system, custom flight data and telemetry computers, and custom GPS telemetry transmission systems.



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Why be a Sponsor?



Because of the challenges with purchasing materials, fabricating rockets, and traveling to competitions, we rely on sponsors to help offset the costs of our projects. We are seeking everything from parts, machining, mentorship, and monetary assistance from all those who would like to help. We hope that through our sponsorship program, we will be able to continue designing and building bigger, better, and competition-winning rockets.

We also hope that through sponsorships, we can build relationships with companies, both local and national. As our team matures and soars higher, our members likewise improve skills and abilities, making them great options for future employees. CRT members have worked at numerous companies including Bell Flight, Blue Origin, COTSWORKS, Glenair, Honda, and NASA.

As a sponsor, not only will you have the benefit of connecting and building relationships with quality engineering students, but you will also expose your company to the greater rocketry community through our competitions and social media. Benefits for sponsoring us include the display of logos on our competition rockets and on our website, and shoutouts on our social media accounts.



Sponsorship Levels:

The following base benefits are included for all donations:

Company/Foundation - Logo on website, linked to your website

Individual - Thanks on website

Gemini:

\$250 Minimum (Money or Parts/Services)

Base Benefits

Small Logo on the Rocket

Social Media Shout-Out

Apollo:

\$500 Minimum (Money or Parts/Services)

Base Benefits

Medium Logo on the Rocket

Social Media Shout-Out

Social Media Bio Line

Skylab:

\$1000 Minimum (Money or Parts/Services)

Base benefits

Large Logo on the Rocket

Social Media Promotion

Logo Displayed in Bay for Visitors

ISS:

\$2000 Minimum (Money or Parts/Services)

Skylab benefits

Logo Displayed on Flag in Bay

Artemis:

\$5000 Minimum (Money or Parts/Services)

ISS benefits

Terms to be discussed with CRT



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Projected Budget for the 2021-2022 School Year:

Contact Us:

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PR Officer

If you are interested in sponsoring our team, please contact our team members above.



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