

# RIT Launch Initiative

launchinitiative@rit.edu  
2021-2022 Sponsorship Proposal

@launchinitiative

# About Us

We are a multidisciplinary student organization that applies the principles of rocket design and manufacturing for learning and competition.

# Mission

From design to launch, we are committed to providing real world engineering experience through leadership, education, and a desire to explore the unknown.



# The Launch Experience

As a part of the team, our students learn valuable skills by collaborating on a number of engineering projects including rockets, payloads, avionics, and more! Early in the Launch experience, students build their own high-powered rocket introducing them to the fundamentals of rocketry - culminating in national certification. Students then continue to develop their understanding as they work through more advanced rocketry systems, learning important engineering and interpersonal skills along the way.

James May  
President

Tomasz Mazur  
Director of Outreach

Carl Kulesza  
Treasurer

# 2020-21 Accomplishments

## IREC

Manufactured and launched Blackout, a level 3 high-powered rocket competed at the IREC competition. The rocket is a 10.5 ft. completely custom carbon fiber aero-structure and a student research and development flight computer with the reported altitude of 10,234 ft.

## Avionics

Developed a custom flight computer to obtain telemetry and detect apogee, as well as a ground station designed to report live telemetry data from vehicles and payloads.

## Propulsion

Developed and tested our very first liquid engine, RL-36. Custom components include a combustion chamber, a feed system, an injector, and a static test stand.

## Space Race: Dragonfly-44

Designed and launched a high-powered rocket with a new R&D Smoke-Flare system aimed to make the searching and recovering of the rocket easier.

## Space Race: Prometheus

Designed and manufactured a high-powered rocket to compile live view of the flight and stream the footage to the in-house ground station.





# Where our members are



## **SpaceX - Launch Intern**

**Brahm Soltres, Mechanical Engineering '22**

Managing fabrication and testing of new tooling and equipment needed for launch and recovery as part of the Ground Support Equipment team.

## **Relativity Space - Avionics Hardware Engineer**

**Joseph Even, Electrical Engineering '21**

Designing Printed Circuit Boards (PCBs) for Hardware-In-The-Loop and Terran 1.



## **Synchrony - Business Leadership Intern**

**Austin Heisey, Software Engineering '22**

Adding API endpoints to the bank service layer microservices and coordinating with the web and mobile teams.

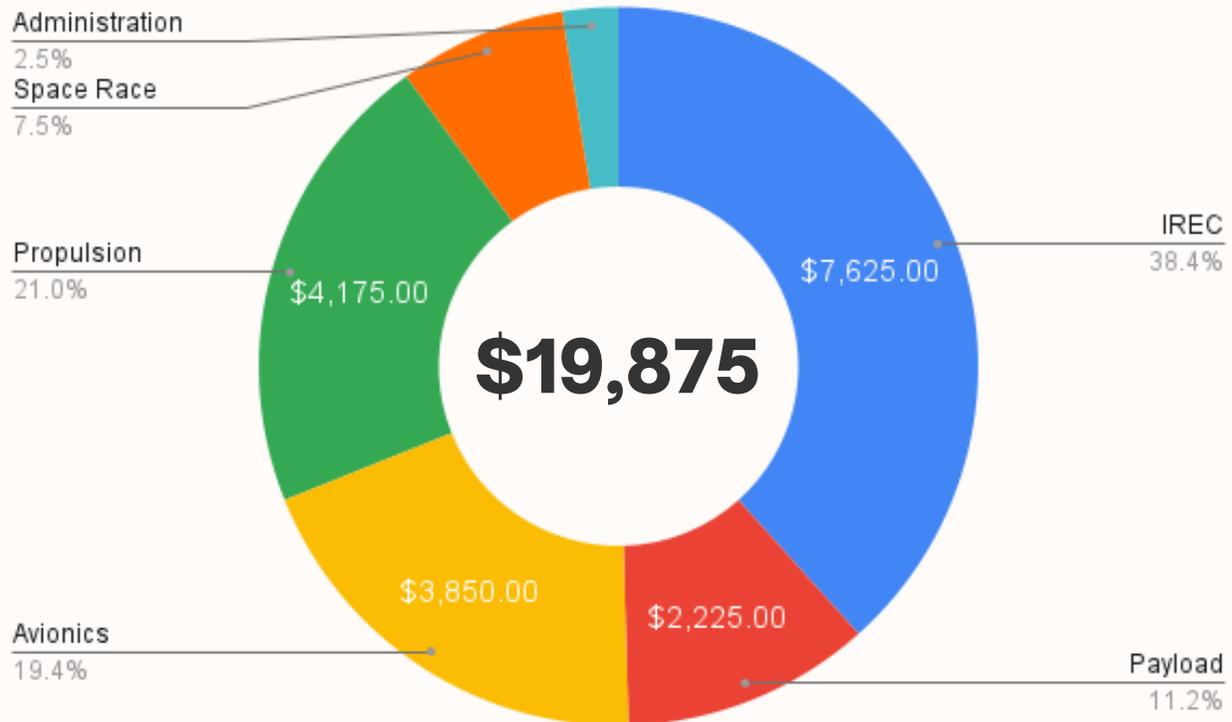
## **Markforged - Print Systems Engineer**

**Matt Ryan, Industrial and Systems Engineering '21**

Designing and supporting metal & composite additive manufacturing tools for aerospace customers.



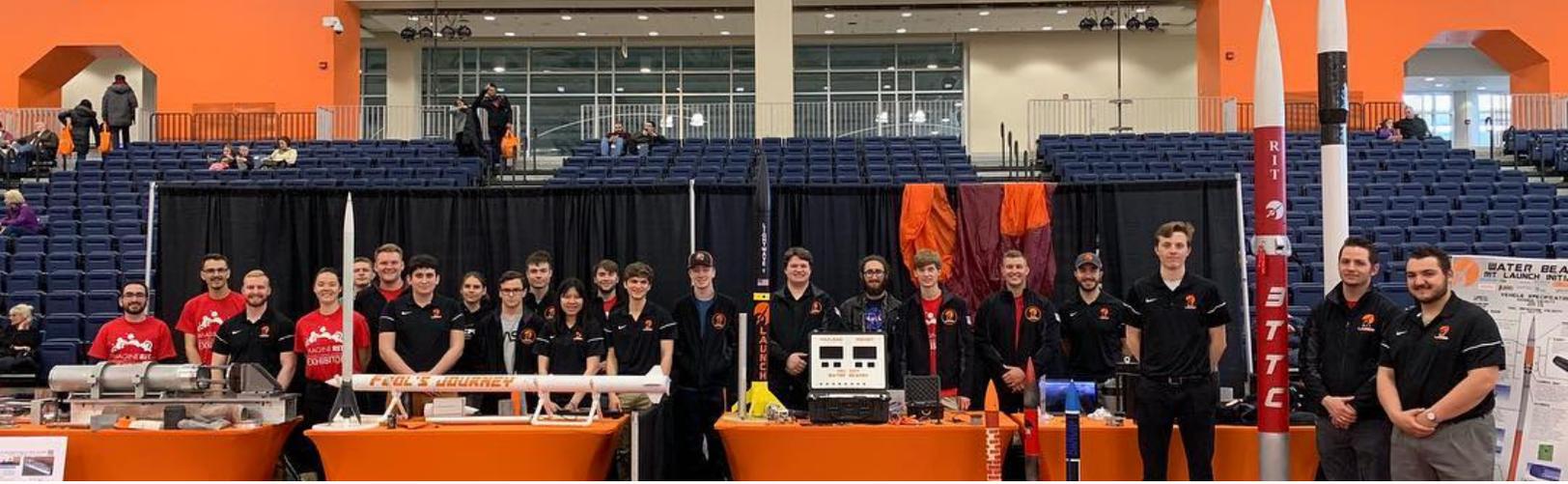
*As well as Blue Origin, NASA, Lockheed Martin, United Launch Alliance (ULA), Collins Aerospace, Spirit AeroSystems, Markforged, Eastern Standard Holdings, MACOM, HP, Tesla, Toyota, General Motors, Moog, Hillrom, HCA Healthcare, **and many more!***



# Goals and Expense Summary

Our goals for the upcoming year are to expand on our existing knowledge as a team and get more people excited about high-power rocketry, including:

- Continuing the highly successful L1 program and gaining multiple new L2 and L3 personal certifications.
- Designing and manufacturing our first solid-fuel rocket motor for the Intercollegiate Rocket Engineering Competition.
- Programming our custom flight computer to handle igniting recovery pyrotechnics and streaming data to our ground station.
- Developing an electric-pump-fed, fully liquid-propelled rocket engine using our existing feed system parts.



# Why Support Us?

Our team runs fully on sponsorships, grants, and support from the community without member dues, because we believe that the joy and knowledge our team instills should be open to anyone.

## Recruitment

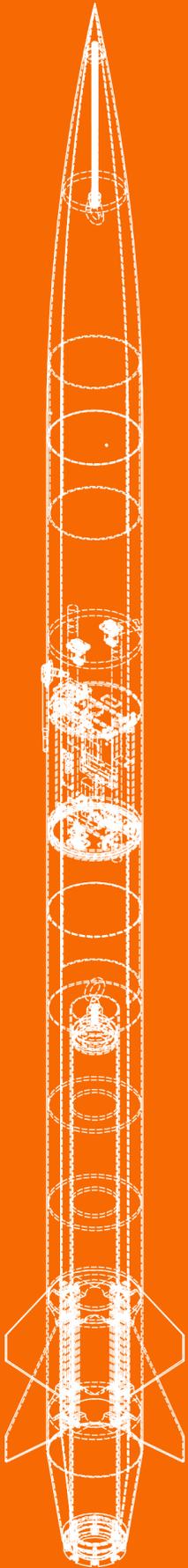
As a sponsor, you have a unique opportunity to gain a direct line of communication with our team for future employment and internship opportunities. Additionally, giving students access to your products and services incentivize them to work with your company, and provide real-time feedback on the products.

## Brand Awareness

Every year RIT Launch Initiative participates in the biggest collegiate rocket competition where we compete with over 70 schools from all over the world. We also keep an active online presence on [Facebook](#), [Instagram](#), [YouTube](#), and our [website](#). Sponsors are mentioned on all our social media platforms, displayed on team apparel, and even have their logo printed on our competition rocket.

## Tax-Deductible Donations

RIT Launch Initiative is a 501(c)(3) organization and all donations are tax-deductible. You can find a more detailed explanation on this at <https://www.rit.edu/giving/>.



# Connect with Us

Thank you for your consideration in supporting the RIT Launch Initiative. If you are interested in becoming a part of our team or have any sponsor-related inquiries, please contact us via email. We appreciate your interest on the team and we look forward to partnering with you!



**Tomasz Mazur, Director of Sponsorship**

[launchinitiative@rit.edu](mailto:launchinitiative@rit.edu)



**Website**

<http://launch.rit.edu/>



**Facebook**

<https://www.facebook.com/launchRIT>



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**YouTube**

[RIT Launch Initiative](https://www.youtube.com/RITLaunchInitiative)