



# GU ROCKETRY

## NEWSLETTER

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JANUARY 2026

# SUMMARY

**GU Rocketry (GUR)** design, build and fly high-powered rockets at the University of Glasgow.

Our members work across a diverse range of projects from launch vehicles and engines to in-house microelectronics and educational outreach.

Consisting of **over 140 members**, our team have won awards, broken records, and continue to inspire young people across the country.



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# HIGHLIGHTS

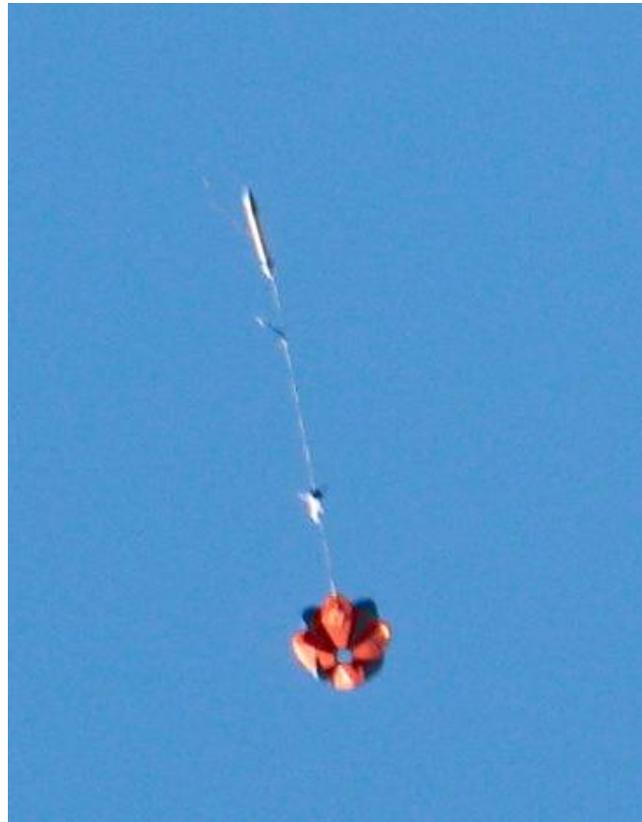
- We changed our structure from disciplined-based to **project-based** to optimise our member's efforts and to better mimic industry.
- We launched more rockets in 2025 alone than every year since the society was founded.
- We launched *Oberon-2* at International Rocket Week (IRW) where we achieved the M-class altitude record on UK soil. It reached an apogee of **19,589ft (5971m)** which is the equivalent of Mount Kilimanjaro.
- During IRW, GUR had **10 unique rockets** fly and won both the Confectionary Rocket competition and the SARA Senior Award for Rocketry. Awarded for our technical excellence and commitment to educational outreach, this made GUR the **first ever student society** to win the award.
- We hot-fired *Icarus*, our first fully 3D printed liquid bi-propellant engine made of AlSi10Mg. This achieved a thrust of **3.6kN** and fired for a total of 8 seconds.
- We appeared in **two different newspapers**, a local Paisley newspaper and The National, for all of our outreach efforts!

# RECOVERY SYSTEMS

Our new **Project SCOTIA** aims to create an easy to integrate customisable recovery solution.

This includes experimentation into optimal design to allow the society to progress in other disciplines without concern about a recovery process.

SCOTIA aims to be a standardised solution for a multifaceted activity.



Throughout the year so far, the team has been familiarising themselves with existing elements of recovery systems, and experimenting with parachute manufacturing techniques.



# HIGH-POWERED SOLID LAUNCH

**Project Eos** aims to compete in the "Future Climate Innovators" National Competition and will carry FCD's environmental board as part of this. This project is GUR's chance to take our society to new heights as we design, build, and launch a competition rocket with a payload that pushes the limits of our capabilities.

*Eos* brings together all disciplines with passionate people skilled in areas such as aerospace design, structures, avionics, flight performance, recovery systems, payload integration, and more. The team is currently working implementing final design changes and preparing for procurement in the coming weeks.



# HYBRID LAUNCH

**Project Prometheus** is GUR's first hybrid rocket, using solid fuel and a liquid oxidiser. *Prometheus* aims to support multiple payloads and two configurations, allowing us to fly a wider range of motors and enhancing our overall flexibility. It will exist as our research and development rocket as we develop our subsystems and experience to move to even more ambitious projects.

*Prometheus* recently completed its Preliminary Design Review (PDR) and is moving into the next phase of development, with plans to launch for the first time in the summer in the summer.

This will be the first time GUR will use nitrous oxide; we are committing a large amount of time and effort to ensuring safety and proper handling procedures to ensure the success of the project.



# FLIGHT-WEIGHT LIQUID LAUNCH

**Project Sisyphus** exists as a culmination of everything GUR has been working towards over the past few years.

It combines years of learning, technical excellence and ambition. Powered by *Clifford*, an additively manufactured 1.5kN engine using isopropyl alcohol & nitrous oxide (IPA/N<sub>2</sub>O), this project's goal is to design a flight-ready liquid bi-propellant rocket. *Sisyphus* is about taking on the hardest challenge we can to push the boundaries of student engineering; thinking big and going beyond!

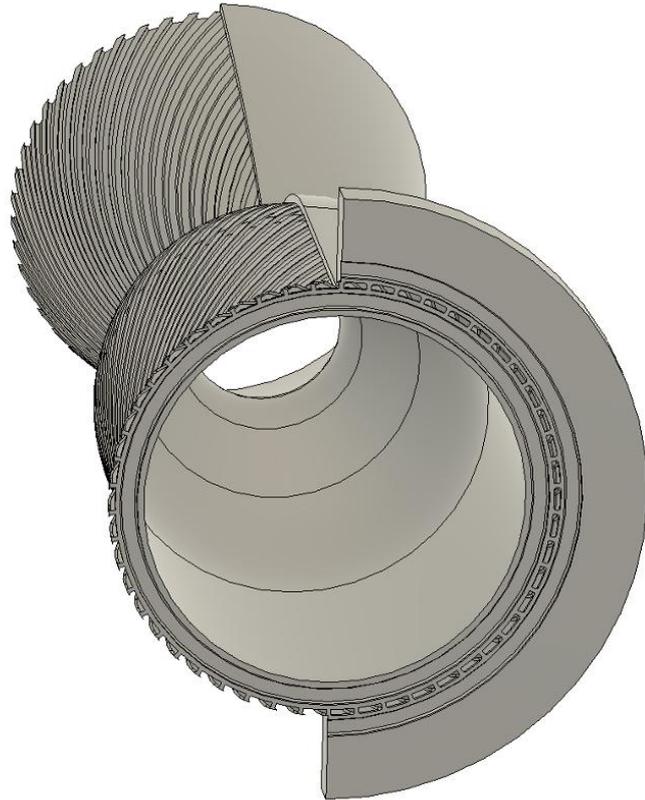


# RACE 2 SPACE 2026

**Project Talos** acts as our entry for the Race2Space 2026 competition and continues our efforts in the design of Student Researched and Developed (SRAD) propulsion systems.

The project takes the lessons from *Icarus*, *Helios*, and *Chimera*, and designs a new advanced 6kN engine.

Talos serve as our second fully 3D printed engine made of AlSi10Mg, and integrates regenerative cooling. Having completed a Preliminary Design Review (PDR), the team is focused on implementing advice from our advisors, and guiding the design of the engine to be our most successful entry yet.



# STATIC FIRE TEST STAND

**Project Atlas** intends to support the society's technical projects for years to come, by providing hardware to support our engine development, allowing us to run tests at a much higher cadence. Supported by the Chancellor's Fund, having such in-house testing capabilities removes previous bottlenecks and creates a legacy for the society to utilise for years to come.

*Atlas* will allow us to significantly increase our testing cadence for our most cutting-edge projects, such as the development of engines and rockets with complex fuel systems.



# START PROGRAMME

The newly revamped **START (Student Teaching in Aerospace & Rocketeering Technologies) Programme** is a series of extracurricular workshops and lectures for first year students, to build skills essential for success in GUR.

*START* aims to give its participants a holistic understanding of the skills needed to flourish in our project teams and in any future career in industry. Over 100 students have been through this programme, formerly known as the JDP, and this number will only rise.

*START* students are guided through miniature versions of the design pipeline the wider society uses, setting them up for success when they move to the project teams.



## BUSINESS & OPERATIONS AND OUTREACH

GUR's **Legal and Partnerships Team** has worked hard secure and manage our sponsorships which include Skyrora, GU68 and RS, while our **Branding Team** has documented all of our achievements on social media and delivered our 2025-26 merch for all of our members! Most importantly, our **Events Team** has kept things light-hearted with morning and evening socials ranging from coffee mornings and walks in the park to karaoke and pub quizzes!



In addition to our technical work, GUR works with schools and youth organisations across Scotland to bring STEM to the next generation. We mentor teams in the UKROC competition, including those from Boclair Academy, Douglas Academy, and Bishopbriggs Academy. We also work with the St. Mirren Charitable Foundation where we have run multiple launch days including a B motor launch day which got our story in a local newspaper!

Our initial goal was to reach a child for every member of the society; however, we have completely exceeded that goal and reached over 250 participants since March last year! GUR takes immense pride in our mentors and our outreach.



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