



ROMANIAN CANSAT AND ROCKETRY CHAMPIONSHIP

Who are we?

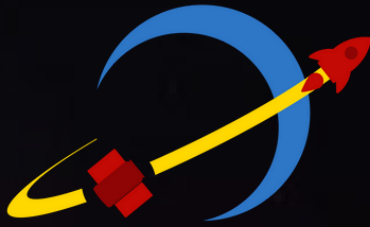
The Romanian Space Initiative (ROSPIN) is a Non-Governmental Organization (NGO) with the vision to create a united community of individuals with similar aspirations regarding the space sector. ROSPIN has the mission to develop the Romanian Space Ecosystem through various activities such as educational programs, hands-on projects, workshops, and community events.

The RCRC experience

The RCRC Experience is designed to inspire students to build their own custom space-like missions. In the CanSat challenge, university students embark on a thrilling adventure to design and build their uniquely crafted, can-shaped satellites and it provides hands-on learning opportunities that can be applied to their future careers as scientists or engineers.

The Rocketry challenge is tailored for high school pupils, providing an unparalleled opportunity to create and launch their own rocket models. This mission is taken to the next level by developing and deploying rocket payloads for scientific experiments, data collection, or even technology demonstrations.

Through this program, all participants are able to gain knowledge about space exploration, how to build, launch and use their own satellites, rockets and other technologies to explore our universe, as well as receive feedback on their projects from experts in the aerospace industry.



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The RCRC journey



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and what data it should collect or send back. Teams have to come up with a creative idea for their mission. They need to think about the satellite's / payload's purpose and what data it should collect or send back. Teams also have to consider how they will get the data, such as using sensors or cameras, and what kind of experiments they can do with the CanSat / Rocket Payload.

Phase 1 Imagine your Mission (2 Oct 2023 - 19 Nov 2023)

Phase 2 Design and Build your Mission (19 Nov 2023 - 28 Apr 2024)

Teams use engineering skills to design, build, program and test their CanSats / Payloads for flight. Teams will use 3D printing, soldering and coding in order to build their CanSat / Payload. They will also need to develop a launch plan which includes the location of the launch site and safety protocols for handling the CanSat / Payload. Only teams that will pass our CDR milestone will move on to build their missions as part of RCRC. We will select 5 student and 5 high school teams at this stage.

Phase 3 Launch campaign (17-19 May Weekend 2024)

The finalist teams have to prepare for their CanSat / Payload

launch by submitting their flight documents to the RCRC team. Teams must also attend pre-launch briefings and workshops in order to ensure that all safety protocols are followed for a successful launch. On launch day, teams will watch as their CanSats and Rockets go up to 1000 meters! After the launch, teams will receive their Mission data and be able to analyze it. They can then use the data to improve their designs to create even more successful and exciting missions in the future. Note that the high school teams will build their payload as part of Phase 2 and the rocket model on-site during Phase 3.



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Who is this for?

The CanSat competition is steered towards Romanian undergraduate, graduate and Ph.D. students from technical Universities that are eager to learn about satellite engineering and are interested in entering the expanding space industry.

The Rocketry contest is exclusively dedicated to high school pupils who have actively participated in the ROSPIN School program. We will select 10 teams from the current edition of ROSPIN School and 10 teams that participated in the second edition of ROSPIN School in March-May 2023 and obtained a Certificate of Participation. This platform empowers these young minds with a solid foundation in aerospace education and the opportunity to take their acquired information and skills to a new level of practical application

RCRC aims to offer a unique experience to acquire knowledge, develop skills and practice teamwork.

What is in it for you?

The Romanian CanSat & Rocketry Championship offers participants the opportunity to explore, design, develop and build a CanSat, Rocket and Payload. It provides students with practical experience working on a real project that can help them develop valuable teamwork, problem-solving, engineering, and creativity skills. It also offers an exciting hands-on learning experience that is different from traditional classroom instruction. Participants will gain a better understanding of the principles of space engineering and physics, as well as a solid background in the application of electronic components. Additionally, the competition encourages creativity and innovation, teaching participants to think outside the box to build a unique mission.



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How to apply?

To enter the competition, each team has to access the Google form [linked here](#) and fill it in between Oct 16th and November 5th. Within the Google form you can also find a link to the detailed rulebook of the competition.

Eligibility Criteria for RCRC

The CanSat challenge

- Each team must have a minimum of 3 up to a maximum of 5 members (full-time students in a University or similar higher educational institution);
- Elementary and secondary education students cannot participate in this competition;
- Team members should have a working knowledge of English to write reports and give oral presentations in English.

The Rocketry challenge

- Each team must have a minimum of 4 up to a maximum of 6 members (full-time pupils in a high school or similar secondary educational institution), that have previously attended the ROSPIN School program;
- University and elementary education students cannot participate in this competition;
- Team members should have a working knowledge of English to write reports and give oral presentations in English.

Contact

You can contact us via email at ro.spaceinitiative@gmail.com, or via any of our social media platforms.