

EXO-Ro 2021 Registration form

EXo-Ro is a simulation of a planetary exploration rover, integrated within the following requirements: weight: 2.5 kg, length: 40 cm, height: 30 cm, width 20 cm. The challenge for the students is to perform their imposed Primary mission: guide the rover over an obstacle course with the help of on board instruments via the internet and collect a sample of 50g with the help of a robotic arm. The Secondary Mission is at the team's discretion.

ESERO România (Biroul European de Resurse pentru Educație Spațială) invites teams of up to 6 students to apply to the forth Exo-Ro competition. The deadline for submissions is 24.01.2021. By completing this form you enter the competition and agree that the data provided will be processed by ROSA and ESERO.

Please consult the Guidelines of the competition available here:

Incomplete forms will not be taken into account.

The coordinating teacher certifies the correctness of the data entered in this form.

Email address *

esero.romania@gmail.com

Team name *

Exo1

School Name (s) *

National College

School address

Str. Stelelelor 1

County *

București

Name of the coordinating teacher *

Johannes Kepler

Email address of the coordinating teacher *

esero.romania@gmail.com

Telephone number of coordinating teacher *

004072

Team composition

The teams registered in the competition cannot change their composition during the contest. Teams can have a maximum of two students who have participated in previous editions of the EXO-RO or CanSat competition.

Student name (1) *

Ion Ion

Age *

14

Student name (2) *

Ion Ioana

Age *

16

Student name (3) *

Ion Ion Ion

Age *

17

Student name (4) *

Ion Ion Ioana

Age *

15

Student name (5)

Ioan Ion

Age

17

Student name (6)

Ioan Ioana

Age

18

Project description

How do you distribute your teamwork? Consider all aspects of your experiment (structure, data analysis, construction, software, etc.) *

Present the team members and their respective roles in the team.

Include their: Field of work within the team, giving details of tasks and suitability for the role

How much time do you plan to allocate to the implementation of the project and how will it be structured? *

Expected workload within the team (in general terms)

Hours dedicated at school, (e.g. 1h per week during physics course)

Hours dedicated after school

Secondary Mission

What is your Secondary Mission? *

Describe your secondary mission and the reasons why you selected that mission. Focus on the scientific aspects that you would like to analyze.

What constitutes a successful Secondary Mission? *

Define which objectives should be reached in order for the CanSat launch to be considered successful.

What are your scientific and technical goals? Focus on the innovative aspects of your project. *

What result do you expect from your research?

What are you going to measure/investigate/test?

Where did you get your inspiration for your Secondary Mission? (A mission of a space agency, another research project, film, book, presentation, etc.) *

Specify the technical aspects and how do they relate to your Secondary Mission

How do you intend to accomplish your Secondary Mission? (What exactly is your experiment, explain in detail in relation to the objectives of the chosen secondary mission) *

What are you going to measure/investigate/test?

Secondary Mission (2)

What kind of data does your rover collect? (in detail) *

Example: temperature, pressure, humidity, gps coordinates, etc


How do you plan to analyze the data obtained? (by what methods etc?) Try to detail the possible conclusions that you could draw based on the different data sets that you can obtain during your experiments. *

Example: think about measurements and possible conclusions that can be obtained from them in terms of temperature, pressure, humidity, infrared images.etc

What type of sensors, communication protocols, etc. are you going to use on board your rover? *

Think about the scientific method and how to sift through the overwhelming volume of data available and correctly interpret its implications. But to sort through all this information, you need the right statistical data analysis tools : arithmetic mean, scatterplot, regression, Sample Size Determination , hypothesis testing.

Please upload a sketch or other explanatory document to support your secondary mission. The file should contain at least an electrical diagram of the prototype. You can find free available tools by following this link <https://cadsat.esa.int/3d-design-tools/> *

 Copy of logo-exo...

Awareness raising activities

What will be your communication strategy for your project (briefly described) *

Consider social media platforms and ways to interact with your local community and attract sponsors

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