SUPPORT PACKAGE

2022-2023

University of Ottawa Mars Rover Team

150 Louis-Pasteur Private,
Ottawa, ON K1N 9A7

Email
uorover@gmail.com

UOROVER

uOttawa

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Glossary

URC: university rover challenge
G&N: guidance and navigation
CIRC: Canadian international rover challenge

Mission statement

The uOttawa mars rover team's (uORover) purpose is to learn, foster a spirit of teamwork and friendship, and to live a balanced and productive life. To work towards the common goal of good competition performance and to create a diverse and unified team.

Who are we?

We are the university of Ottawa's mars rover team, and our goal is to build a functional rover for the University Rover Challenge (URC). This competition is the world's premier robotics competition for university students. URC challenges student teams to design and build the next generation of Mars rovers that will one day work alongside astronauts exploring the Red Planet. We are a team of passionate and dedicated students who have worked tirelessly over the past 4 years to create a rover with amazing capabilities. We bring together students from many different faculties, including engineering, science, and business. We are 100% student run and a not-for-profit organization with a passion for rovers, planetary exploration and pushing the limits.

Values

- Inspire the future generation to consider jobs in the technological, mechatronics, and aerospace industries.
- Educate new members and the public on space exploration and rover usefulness.
- Motivate students to push themselves and help them grow and learn new useful skills.
- Respect all members of our team and our competitors and create a safe and thriving team space.
- Include everyone who wants to participate non dependant of their program of study or any other criteria.

Sub-teams and what they're working on:

- Robotic Arm
  - Mechatronics and electrical craftmanship dominate this integral field of our rover creating a magnificent work of claw machine art. They've been hard at work redesigning from scratch a new more dynamic arm.

- Software and G&NC
  - Coding and Ai automation make this part of our team a reality and allow our rover autonomous capabilities. When it comes to automated guidance, they've got it on their radar.
- Chassis and suspension
  - What's a rover without its skeleton? These civil and mechanical engineers create the strongest and most durable chassis to prep our rover for the competitions ruff terrain. They've overhauled our six-wheel system to redesign a four wheeled chassis.
- Life detection and Science
  - We welcome our brothers and sisters from the faculty of science in their quest for life and its answers. They've created a functional system capable of detecting life in Martian soil samples.
- Business
  - The men and woman working behind the scenes to prep, fundraise and promote the rover to show the whole Ottawa community what its all about.

Mission control, what's going on?

- Where: at the Mars desert research station in Hanksville, Utah, U.S. for URC and Drumheller, Alberta for the (CIRC)
- Who: The top 36 university teams from over 10 countries come together to compete in the URC with a huge turnout.
- When: May 31 - June 3, 2023 (URC) and august 11th-14th 2023 (CIRC)
- Why: to help advance space knowledge and our rover buildings abilities. As well as have fun and show off our passion.
- More info: https://urc.marssociety.org (URC) and https://circ.cstag.ca/news/Announcing-CIRC-2023-and-Beyond/ (CIRC)

How Can you help?

Advice

We greatly appreciate companies willing to put a foot forward in offering our team members valuable advice, training, and knowledge to help them grow in the various fields linked to the creation and maintenance of the rover and its components.

1. We mainly look for skills training.
2. As well as knowledge of different parts and systems linked to the rover construction.
3. And advice on how to improve our rovers' capabilities.

Sponsor

We're looking for new sponsors and partners to help our project grow and achieve our goal of attending the URC competition 2023 only four years after our team's creation.

We offer different benefits for our sponsors:

1. Notably CVs of our team members and one on one meetings if requested.
2. Your companies' promotions through logo placement on the rover.
3. Meetings with our team to answer any questions as well as potential showcasing of the rover.
4. Monthly newsletters describing the rovers progress of achieving our goal of attending the URC this year.

Donate

We accept donations as low as 5$ and we are fully capable of giving a charitable tax donation receipt for personal income taxes or corporate income tax fillings.

1. We accept parts,
2. And Monetary donations.