

Colorado Robotics Challenge 2024

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Agenda

Friday, April 12, 2024	
3:00 – 6:00 PM	Workspace available to teams at Adams State University
6:00 – 8:00 PM	5-min team presentations and dinner (pizza) at ASU
Saturday, April 13, 2024	
6:30 – 7:30 AM	Drive from Alamosa to the Great Sand Dunes National Park
7:00 AM	Optional early arrival at the Dunes to participate with course set up
7:30 – 8:00 AM	Team check-in, rover weigh-in
8:00 – 8:15 AM	Welcome remarks and official start of the Robotics Challenge
8:15 – 8:20 AM	Group Picture
8:25 – 11:15 AM	All courses are open
11:15 – 11:30 AM	Team recognition in the parking lot
11:30 – 12:00 PM	Tear down and clean-up

Robotics Expectations

- ◁ Robots should be about “the size of a cat.” Either under 1.5 kg, or under 4 kg.
- ◁ Robots should be able to: 1) Move forward; 2) Avoid course obstacles; 3) Navigate to the end of each course.
- ◁ Robots should be autonomous and no GPS (robots designed to work on other planets – not Earth)
- ◁ Robots may not leave the ground (no flying).

Challenge Day Expectations:

- ◁ Encourage and be supportive of other teams.
- ◁ LEAVE NO TRACE!! Do not damage vegetation or leave anything behind.
- ◁ Bring snacks and water.
- ◁ Bring sunscreen, hat, cold and warm weather clothes and be prepared for changing weather during the event. Morning will be VERY cold.
- ◁ No more than 3 robots on any course at any given time.
- ◁ You do not have to complete the courses in order (you are challenged to complete all courses).
- ◁ Ask questions, take pictures, offer suggestions, but do not physically handle another team’s robot unless invited to do so.
- ◁ Be able to reprogram and perform diagnostics while at the Dunes. As you learn more about your system during the Challenge, you will want to see how to make it better.
- ◁ Be sure your laptop and rover batteries are fully charged - as there is no power available on the course site (unless you bring your own solar chargers, or charge from your car)

You are representing NASA Colorado Space Grant, your home school, and yourselves. There will be media at all events. Comport yourself proudly by having high levels of professionalism, mutual respect, and responsibility.

This will be a lot of fun!!

Remember, this is not a competition. Each team is working toward its own priorities. The courses at the Dunes provide many challenges to see how your robot performs and how well the team can address issues as they arise. We will acknowledge a few special recognitions at the end of the event.

Recognition Divisions

Best rover under 1.5kg

Best rover between 1.5kg and 4kg

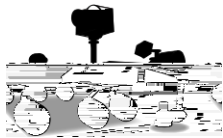
Outstanding performance: Obstacle Avoidance

Outstanding performance: Navigation

Most creative structural materials

Outstanding demonstration of Creative Locomotion

Outstanding Demonstration of Advanced Autonomy



Mars Sojourner Award [exemplary team/institution new to robotics]

Mars Spirit Award [exemplifying sportsmanship and good stewardship]

Mars Perseverance Award [for unwavering perseverance in the face of adversity]

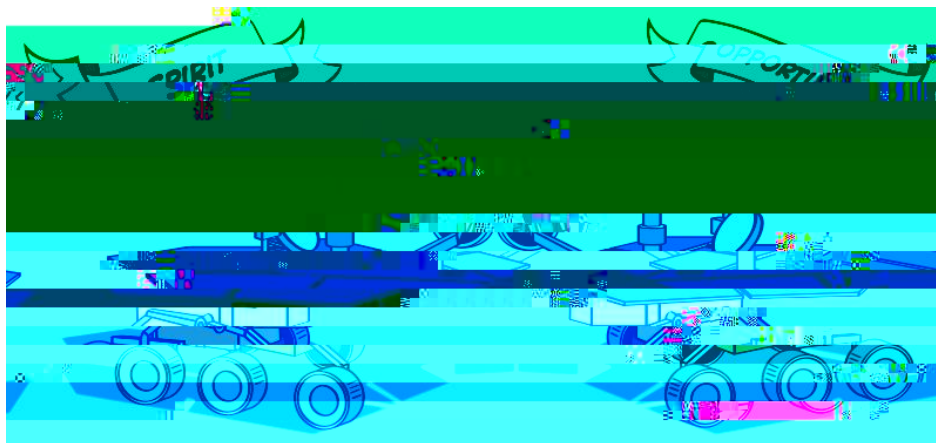


Image credit: NASA