

Colorado Robotics Challenge 2025

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Agenda

| Friday, April 11, 2025 | |
|--------------------------|---|
| 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 12, 2025 | |
| 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 – 11:45 AM | All courses are open |
| 11:45 – 12:30 PM | Team recognition in the parking lot |
| 12:30 – 1:00 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 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: Navigation

Best Bio-inspired Design

Outstanding demonstration of Creative Locomotion

Outstanding Demonstration of Advanced Autonomy

Thoughtful Design – Attention to Detail

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

Mars Spirit Award [exemplifying sportsmanship and good stewardship]

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

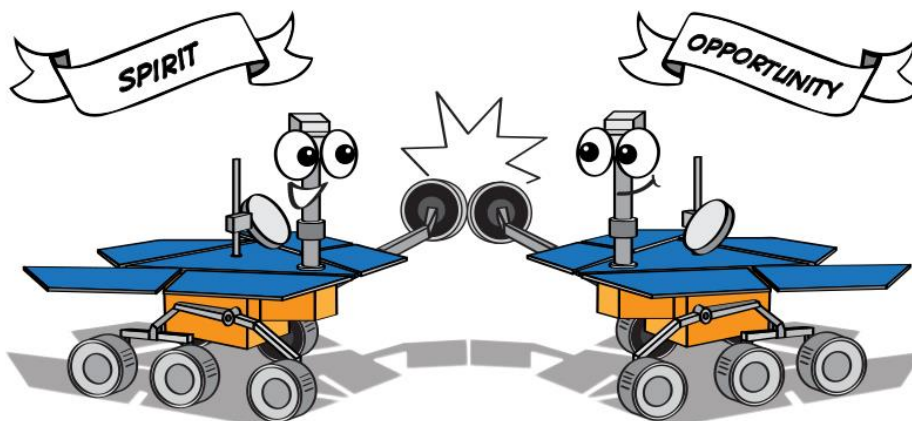
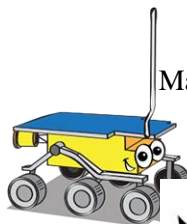
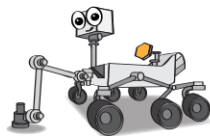


Image credit: NASA

Map to the Robotics Challenge at the Great Sand Dunes

Typical drive time from Alamosa to the Robotics Challenge Site is 50 minutes. From Alamosa, travel east on 160. Turn Left (North) on 150 and follow the signs to the park entrance. r and tell them that you are participating in the Robotics Challenge. They are expecting us, so you should not be charged. If the entrance station is not open, just proceed into the park.

Once you enter the Sand Dunes, proceed past the Visitors Center. Then take the next left to the parking lot at the base of the Sand Dunes. The event and courses will be to the North of the parking lot about 100 ft. Stay on the main trail leading from the parking lot.

