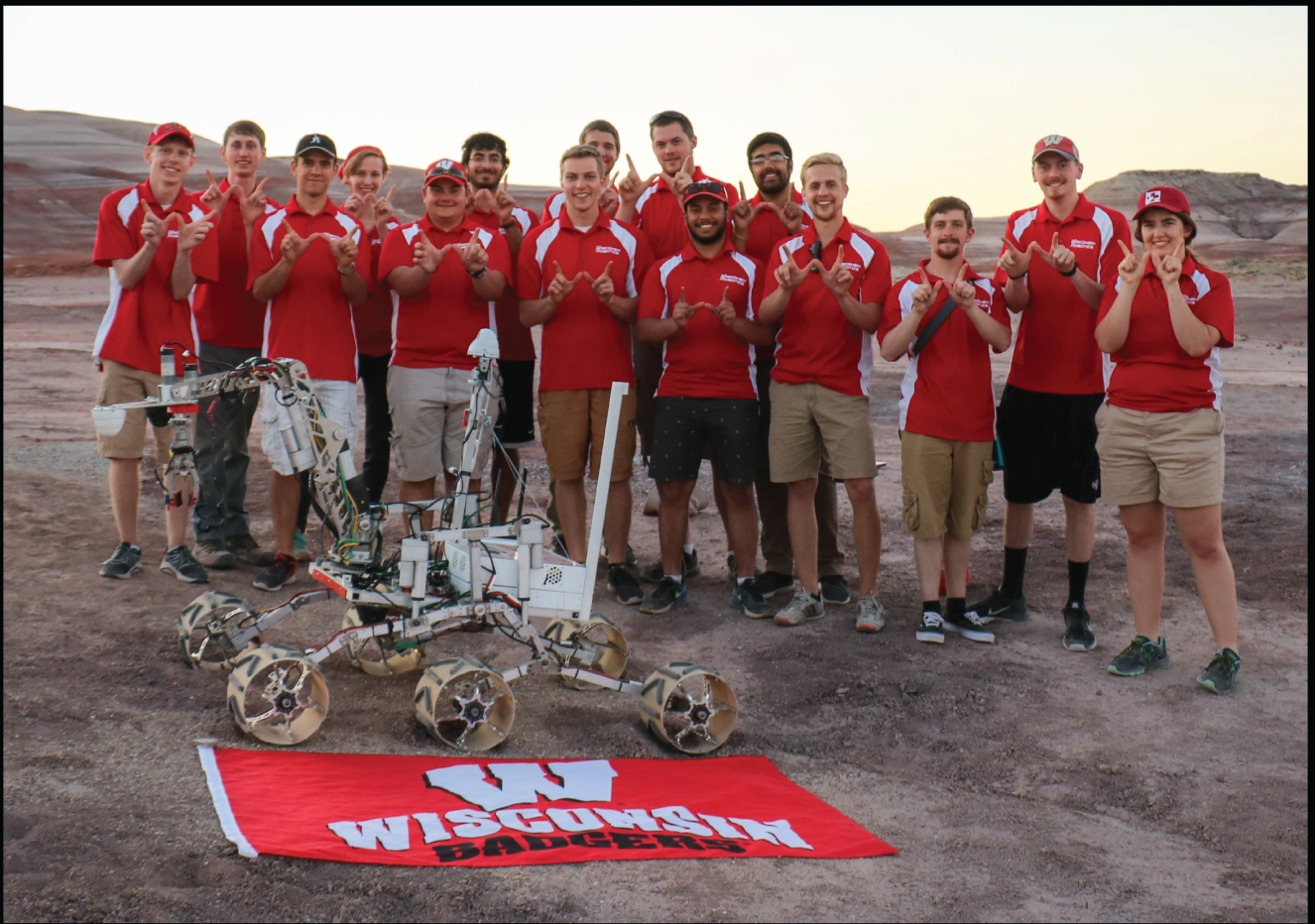


UNIVERSITY OF WISCONSIN-MADISON

# WISCONSIN ROBOTICS

FALL NEWSLETTER 2018



Extreme Engineering Solutions



Custom Electronic Enclosures  
For Engineers & Designers



## Introduction

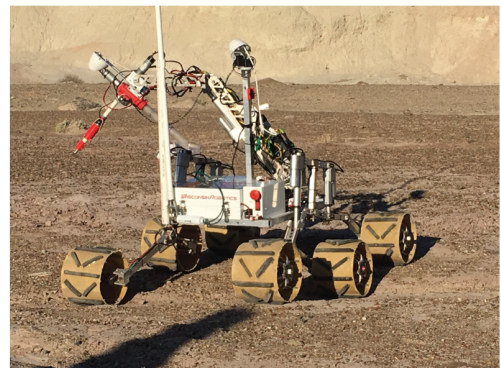
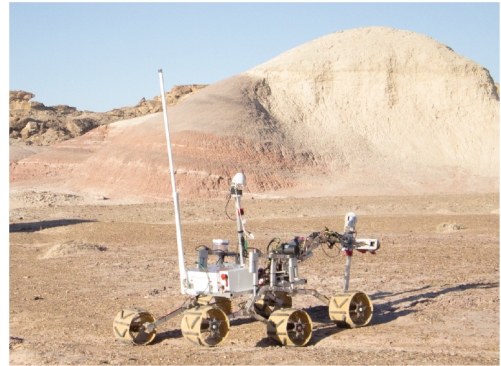
Wisconsin Robotics is made possible through generous donations from our sponsors. These contributions, both financial and in-kind, allow the team to develop advanced robotics systems for international competitions and to remain involved in community outreach to inspire K-12 students to pursue STEM. We are grateful for the continued support of our sponsors, University, and extended community. To this end, we have compiled a newsletter detailing our performance at the University Rover Challenge, our next steps, and activity since our last update.

## Major Competition Changes

The rules for the University Rover Challenge 2019 have been released! Most missions are the similar to previous years. The rover will still be required to traverse difficult terrain, manipulate a wide range of objects varying in intricacy and weight, and navigate the area autonomously. However for this year the scientific analysis portion of the competition has been almost completely revamped.

- There is no longer any laboratory analysis done on the collected science samples, all analysis must be done onboard the rovers
- Teams are required to be able to analyze both soil and rocks
- Specific sample locations are now designated

If interested, competition requirements can be viewed in full detail on the University Rover Challenges' website.

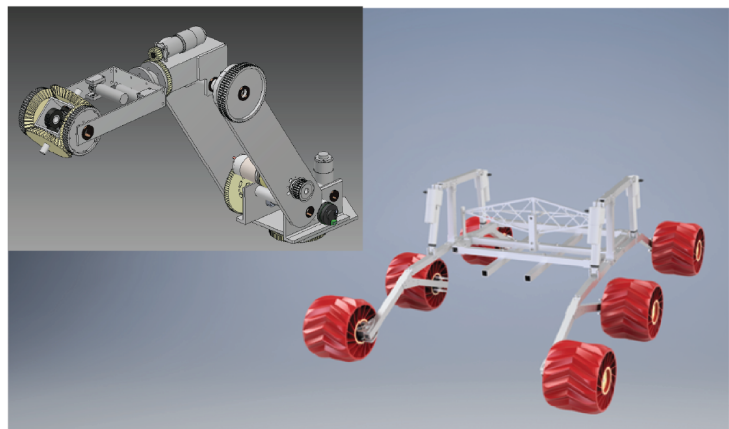


## Competition Progress

We are deep into the design for our 2019 rover, Horizon. We are building off of successful components of previous systems and iterating where needed. In addition to this, certain systems are undergoing a full re-vamp to increase functionality and system capabilities. This is being done with our manipulation and science cache systems.

This past November we submitted the first competition document, the Preliminary Design Review. This review ensures that teams have the necessary structure, support, and resources to be competitive at URC. We have successfully passed this deadline along with 84 other teams from 13 different countries.

In the next coming months we will be preparing for the major competition deadline, System Acceptance Review. This will include a paper and video detailing our rover system and its capabilities in performing each competition mission. Of the 84 teams currently participating, 36 will be chosen and accepted to compete at URC in Hanksville, Utah.





## Fall Semester Outreach

### Milwaukee Maker Faire - September 29th, 2018

- A huge annual gathering of makers and STEM enthusiasts from all over the Midwest, the largest Maker Faire in the state of Wisconsin



### Badger Bash - October 6th, 2018

- The pregame event for Badger Football hosted at Union South on campus



### Wisconsin Science Festival - October 11-14th, 2018

- A statewide event of over 36,000 attendees dedicated to the promotion of science through performances, demonstrations, and interactive activities for students



### Saturday Science - December 1st, 2018

- A monthly event hosted at the Wisconsin Institute of Discovery to promote hands-on learning in the community



## Upcoming Events

- Industry Night - February 5, 2019  
Employers will be able to interact with student organizations and individual makers in the style of a reverse career fair
- Elkhorn Mini Maker Faire - March 9th, 2019  
A gathering of local makers showing off their projects to the public
- UW - Madison Engineering EXPO - April 5-6th, 2019  
An event featuring the projects of the entire engineering department at UW-Madison showing off a huge array of research and project to the public