



Greetings
Earthlings!

Recruitment 2015-2016



DESIGN, BUILD, AND OPERATE
a mock rover that can perform
field tasks to assist in **A FUTURE MISSION TO MARS**

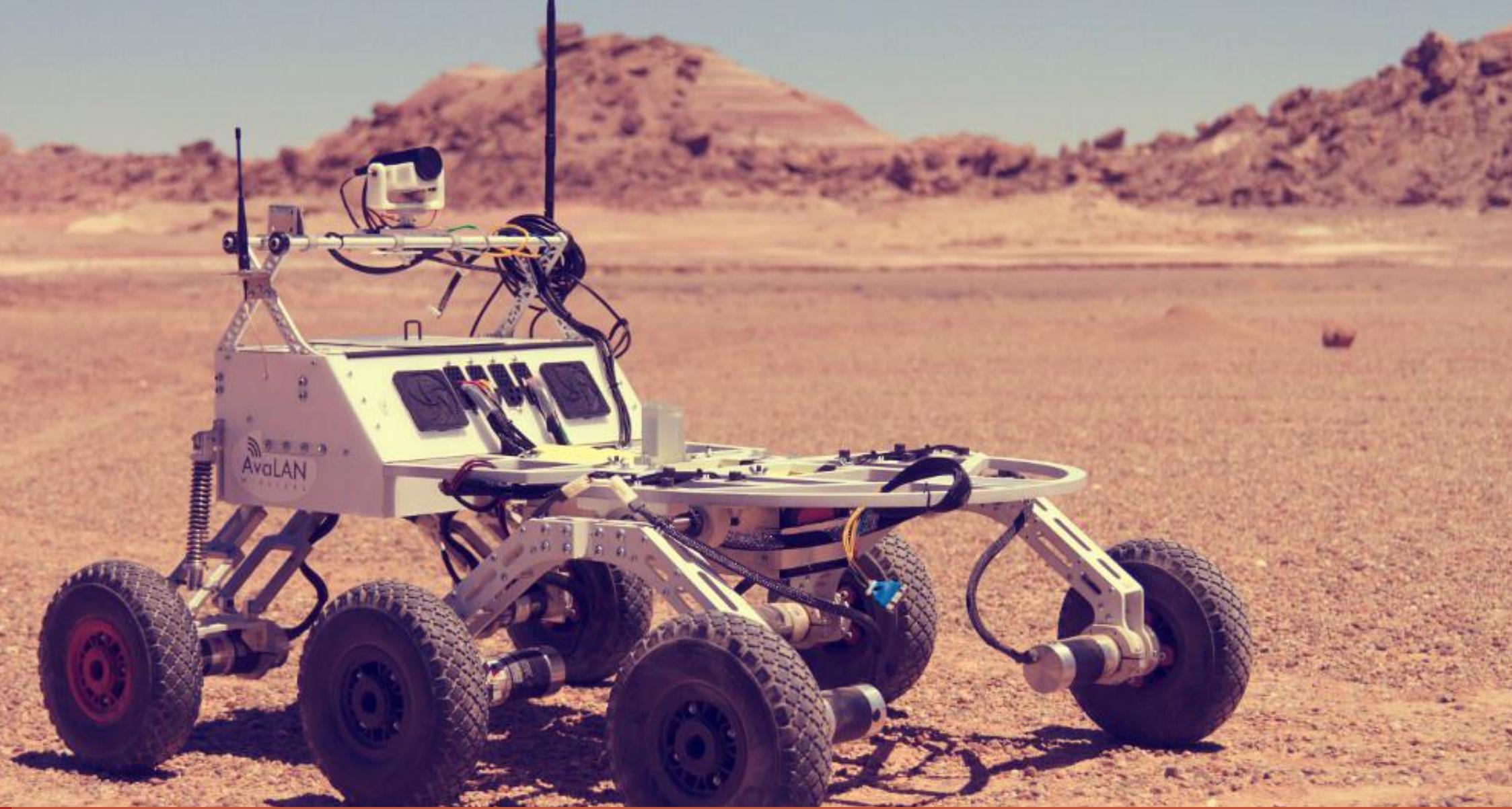
We're Young & Hip

5404
Years Members Rovers

as an established team

with diverse backgrounds

built with love and care



Eos [2012]



CMR

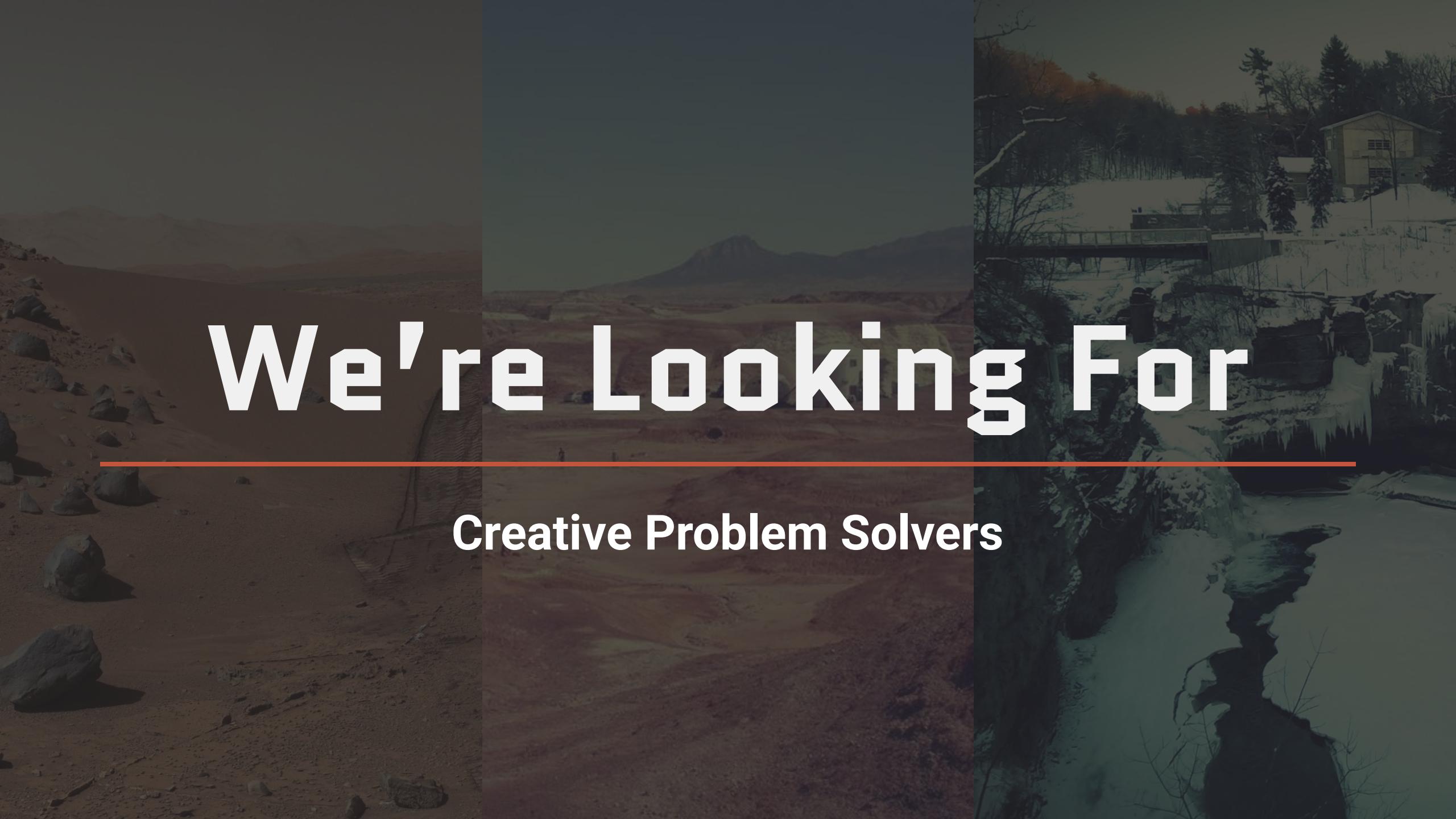
Helios (2013)



Ares [2014]



Garcia [2015]



We're Looking For

Creative Problem Solvers

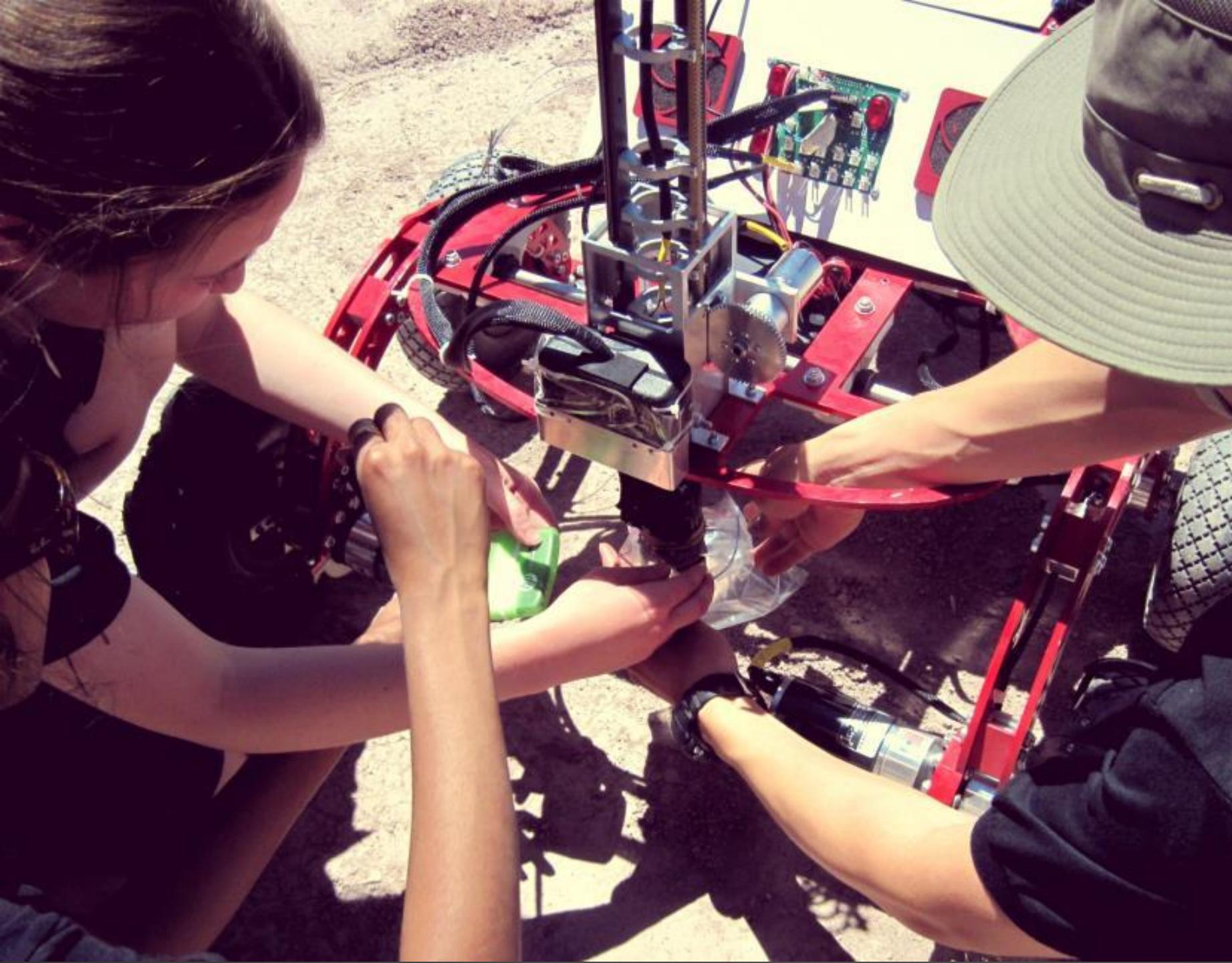
University Rover Challenge

Occurs each year at the end of **May**

Compete against over **40 International Teams**

Winners: Opportunity to present at International Mars Society Convention



A photograph showing two individuals working on a red and black robotic vehicle in a desert environment. One person, wearing a dark t-shirt and a cap, is kneeling and adjusting a component on the side of the vehicle. Another person's hands are visible, holding a clear plastic container and a green tool, possibly a screwdriver, near the center of the vehicle. The vehicle has a complex mechanical structure with various sensors, wires, and a small screen. The background shows a dry, sandy landscape under a clear sky.

1

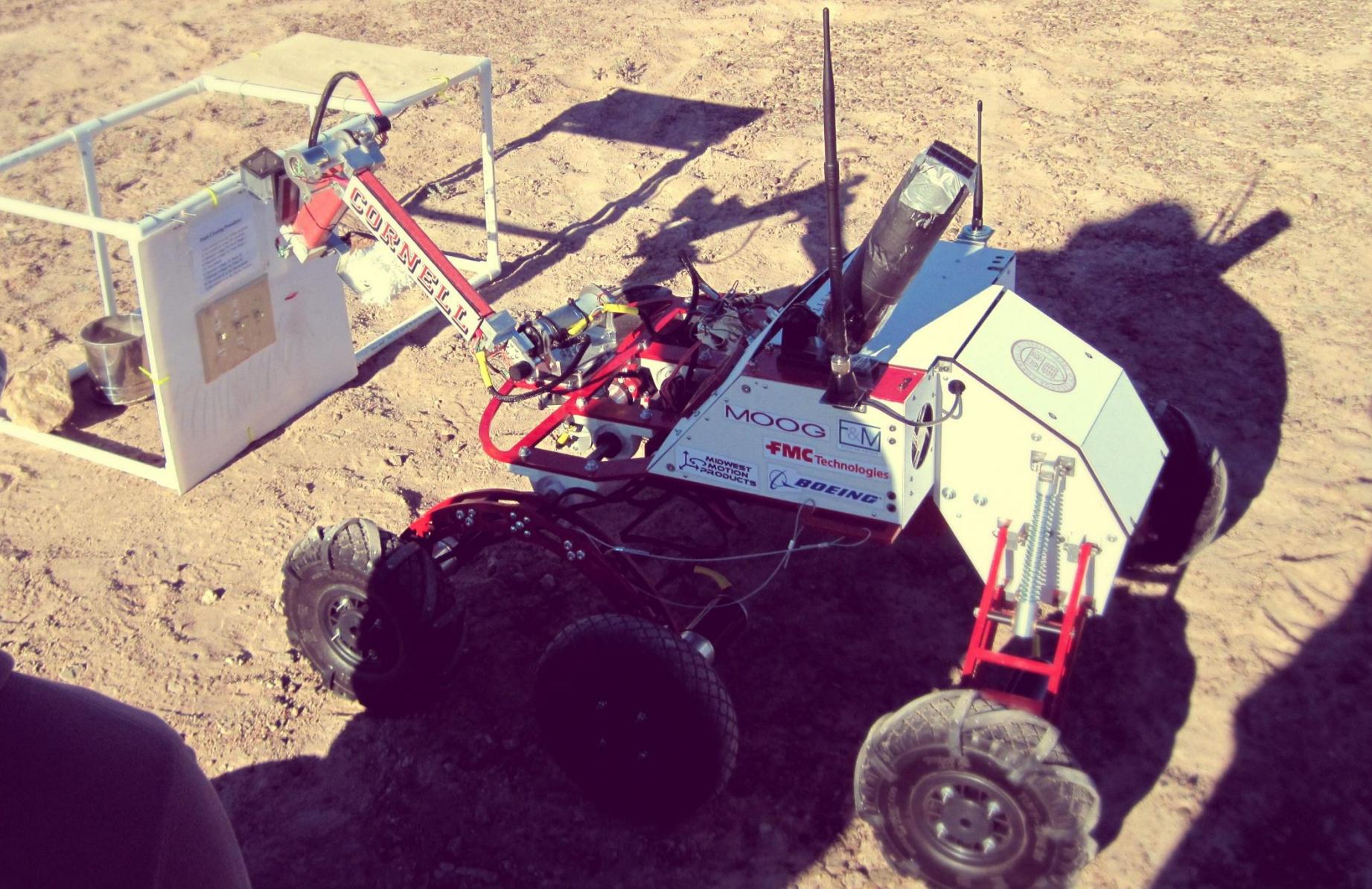
URC Task

Soil Sample Analysis

2

URC Task

Equipment Servicing



3

URC Task

Astronaut Assistance

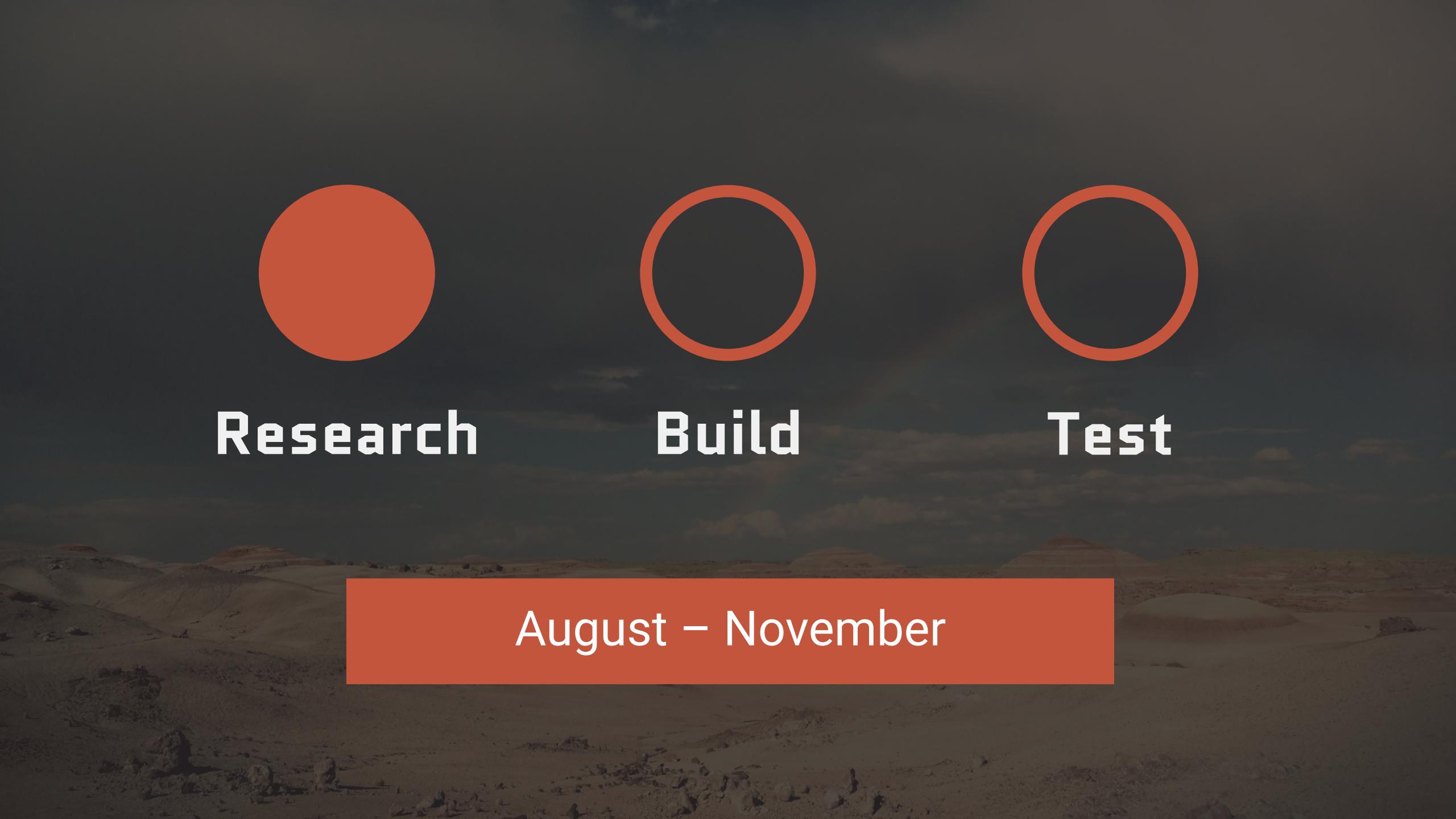


4

URC Task

Terrain Traversal



The background of the slide features a dark, atmospheric landscape with rolling hills and mountains in the distance, under a sky filled with scattered clouds.

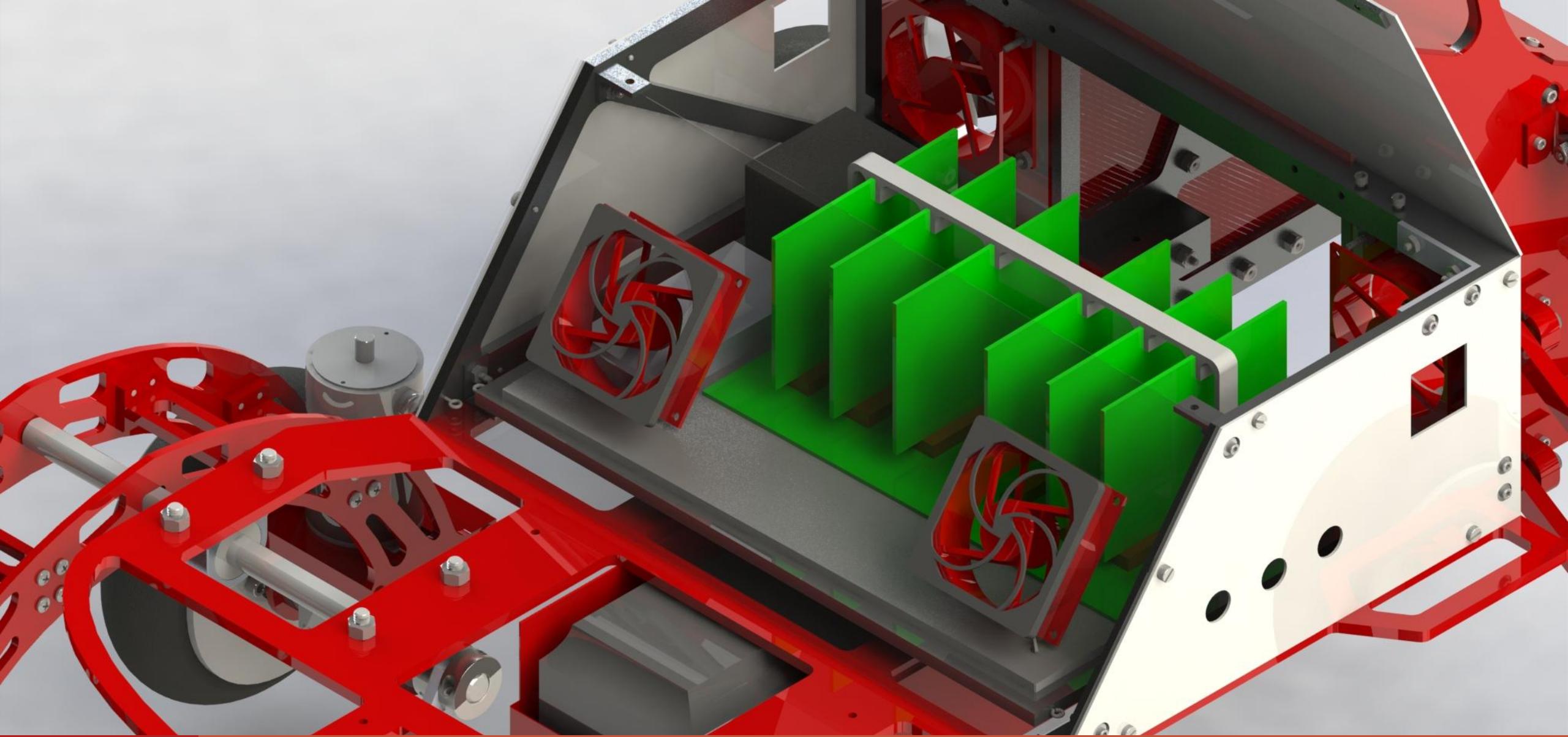
Research

Build

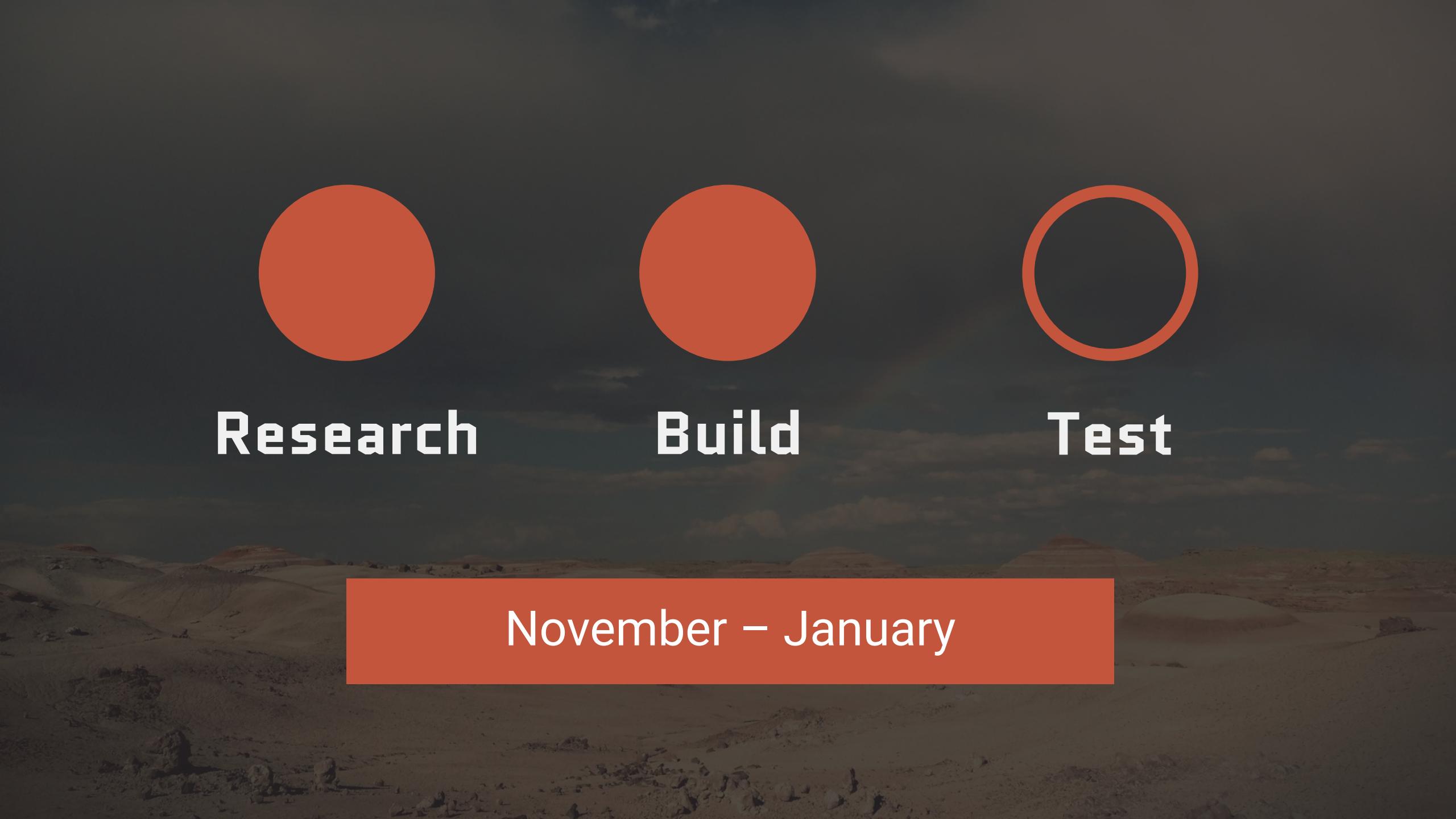
Test

An orange rectangular box is positioned in the lower center of the slide, containing the text "August – November".

August – November



Computer Aided Design & Analysis



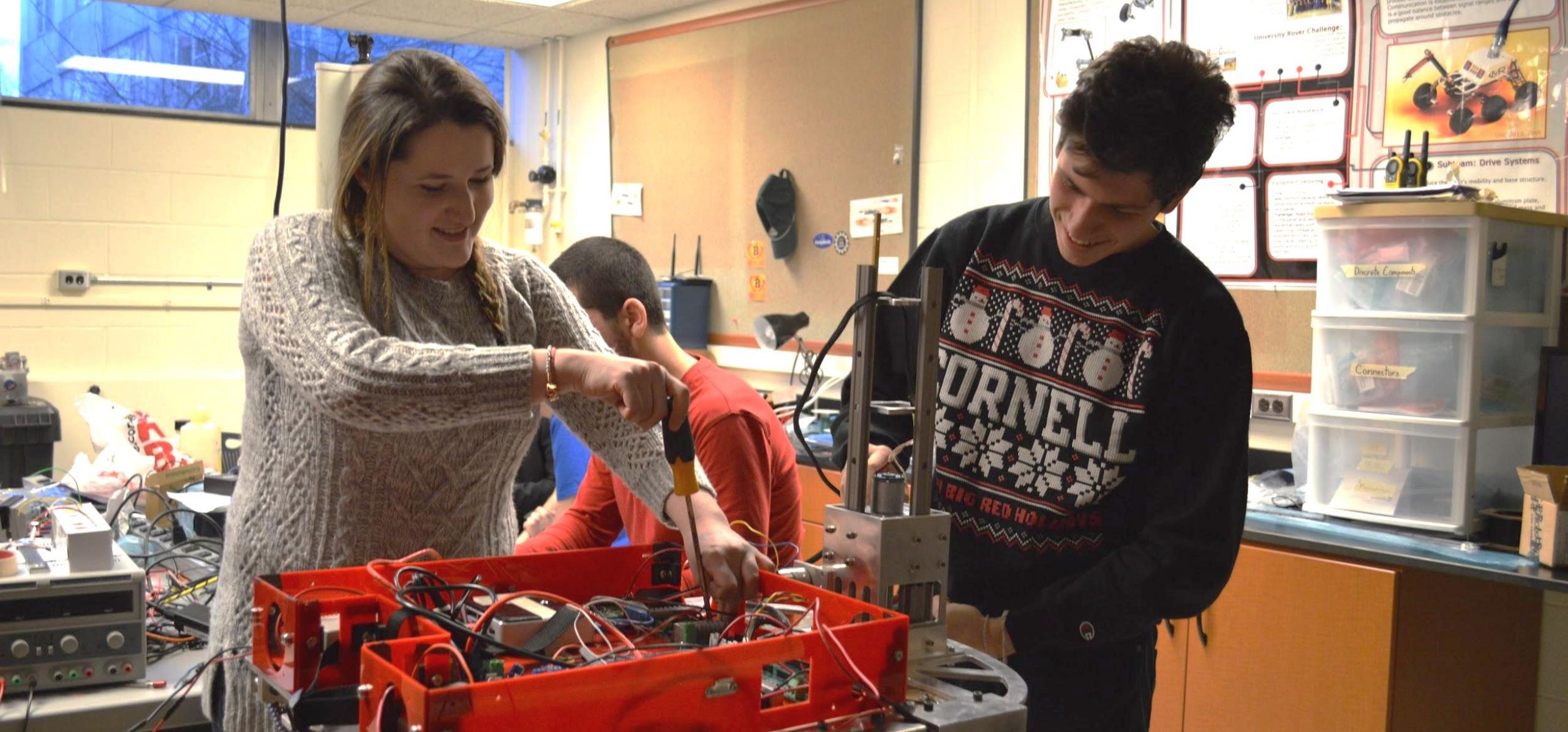
Research

Build

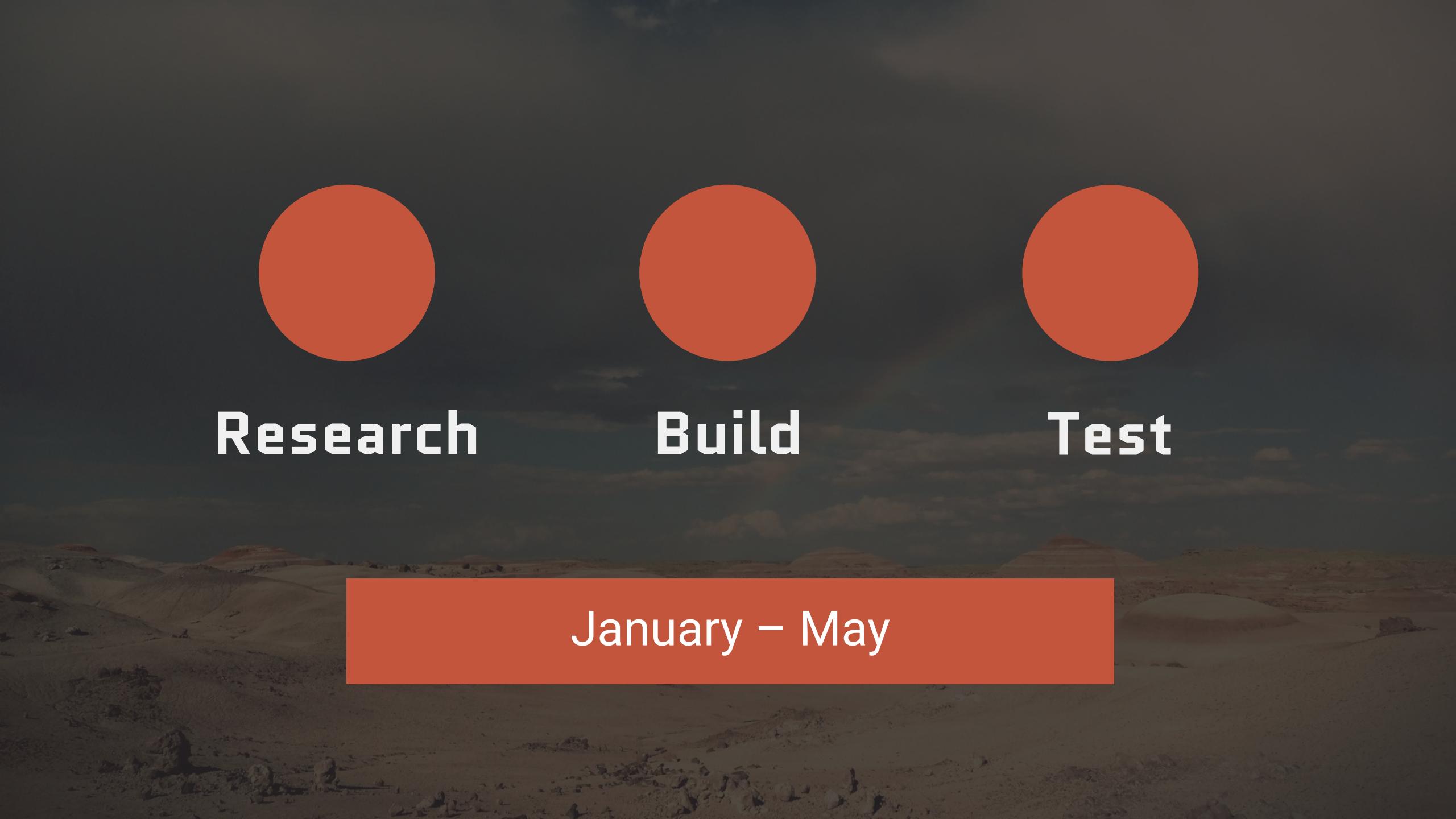
Test



November – January



Hands-on Lab Work



Research

Build

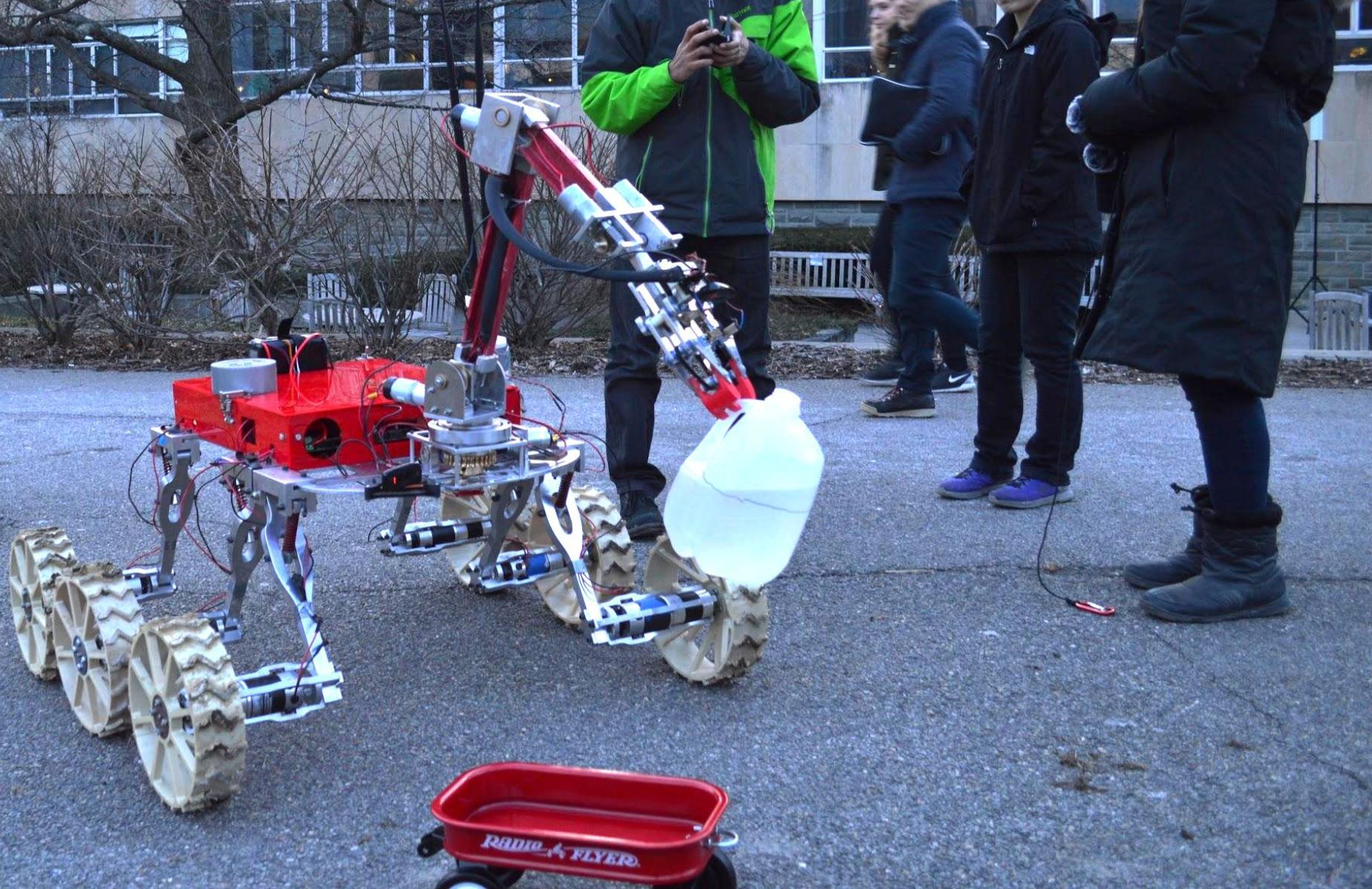
Test



January – May



Testing for Competition



Opportunities

for Diverse Interests

MechE

Physics

Computer Aided
Design & Analysis

3D Printing

Product Design

ECE

Sensors

Wireless
Communication

Power Systems

Circuit Design

CS

Data-Driven

Web & Software
Development

Open Source

OS Design

MORE +

Marketing

Chem, Bio, and
Environmental

Entrepreneurship

Graphic Design

Drive Systems

Design chassis, electronics housing, suspension, and locomotion of the rover.

**Mechanical
Engineering**

Physics

Robotics

Machining

Computer Aided
Design & Analysis

Product Design



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Task Systems

Develop specialized rover components
for competition field tasks.

**Mechanical
Engineering**

Prototyping

Robotics

3D Printing

Computer Aided
Design & Analysis

Product Design



marsrover.engineering.cornell.edu

Controls Electrical

Build the Electronics Core and manage wireless communication.

**Computer &
Electrical
Engineering**

Sensors

Robotics

Power Systems

Wireless
Communications

Circuit Design



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Controls Software

Develop C++ software for the rover's operating system.

Computer Science

Linux

Robotics

OS Design

Hardware
Abstraction Layer

Open Source



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Science

Research and analyze soil samples for signs of life.

**Chemistry, Biology,
and Environmental
Engineering**

Sensors

Robotics

Geology

Cyanobacteria
Research

Spectroscopy



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Business

Administer team finances, sponsorships, marketing, and technology

**Computer & Information
Science**

Art, Architecture, & Planning

More +

Accounting

Marketing

Data-Driven

**Web Design &
App Development**

Graphic Design



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Our Track Record



3rd 2nd 4th

Overall

Terrain
Traversal

Equipment
Servicing

2012

2014

2015

A photograph of a red and black off-road rover, likely a Mars rover simulation, driving across a dry, cracked, light-colored desert floor. The rover has large black tires and a complex mechanical frame. In the background, there are dark silhouettes of mesas and buttes under a sky filled with dramatic, orange and yellow clouds at sunset.

GAIN hands-on experience.
LEARN from peer mentors.
GROW as a leader.

JOIN a passionate community!



Thank You!



Apply Online!

Deadline:
Monday, Sept 7
at 11:59pm

Learn More

marsrover.engineering.cornell.edu