



NASA **HUMAN EXPLORATION ROVER CHALLENGE**

Design • Build • Test • Compete
A Simulation of NASA's Engineering Design Process

HERC Objective

Students design, build, and test human-powered rovers and technologies capable of traversing exoplanetary-like landscapes while completing mission-objective tasks.

The Challenge

Two students, at least one female, will pilot a student-designed human powered vehicle to traverse a half-mile course that includes a simulated field of asteroid debris, boulders, erosion ruts, crevasses, and an ancient streambed. Teams earn points by completing design reviews, and designing and assembling a rover that will successfully complete the course obstacles while performing mission tasks.

Curriculum Alignment

HERC Aligns with national high school and university standards in engineering and science.

Key Dates

- Follows full academic year.
- Registration for U.S. Teams opens in the fall.
- Design review reports/presentations are due late fall.
- Operational Readiness Review reports/presentations are due early spring.
- On-site competition held in April.

On-Site Challenge Location

Huntsville, Alabama