

HOW TO GET INVOLVED

Teams

- *Register Your Organization
- Form a Team
- Get a kit for your challenge
- Register for the invitational

*See reverse for links and details about each challenge

Recruit New Teams to Help Expand STEM Education in Arizona:

- Get a STEM Outreach Packet at <https://bit.ly/2UvI15D>
- Reach Out to New Programs
- Provide Information About ANGLEs and the *Lunar Legacy Invitational*
- Tell Your Story

Volunteers – We Couldn't Do This Event Without You – Please Sign Up

- Judges/Refs

- Safety/Inspectors
- Logistics

Sponsors – Help Youth Develop STEM Workforce Skills in Our Community

- Kits

- Event Registration
- Travel
- Awards

Contacts: FLL/FTC – pstrones@firstinspires.org
ANGLEs: Sean.Ryan@nau.edu

FULL STEM IMMERSION

All Teams Will Have the Following Opportunities

Participate in your challenge

- Awards for Each Challenge

Support & learn from peers

- Check out the other challenges

Participate in Guest Speaker Sessions & Professional Development.

- Planetary Science
- How to Take the Next Step in STEM

Join a Tour to Visit & Experience the Lunar Legacy of Flagstaff, AZ

- ★ Walk where astronauts walked & trained at local crater fields
- ★ See where Pluto was discovered: Lowell Observatory Tour
- ★ Learn about Arizona's role in NASA and Planetary Science
- ★ Learn about the future of STEM



BE A PART OF THE

LUNAR LEGACY INVITATIONAL

FLAGSTAFF, AZ
JULY 19 – 20, 2019

This event will feature
3 types of robotics
challenges, and will
highlight the rich
history of NASA and
planetary science in
Flagstaff, Arizona.



FIRST LEGO League (FLL)

INTO ORBITSM

Tomorrow's innovators practice imaginative thinking and teamwork. FIRST LEGO League teams research a real-world problem such as food safety, recycling, energy, etc., and are challenged to develop a solution. They also must design, build, program a robot using LEGO MINDSTORMS® technology, then compete on a table-top playing field. Teams have up to 10 students ages 9-14.



Join our mission into the 30th season of FIRST®! Prepare for blast off, break out of your earthly constraints and go INTO ORBITSM. The 2018/2019 FIRST® LEGO® League season will transport your team into space, where you'll explore, challenge, and innovate in the vast expanse of space.

Find out more about FLL and FTC at <https://www.firstinspires.org/robotics/fll>

FLL Point of Contact: Mrs. Patti Strones at pstrones@firstinspires.org



Apollo NEXT GIANT LEAP Student Challenge (ANGLeS)

LUNAR LANDER

Complete a NASA challenge that celebrates the 50th anniversary of the Apollo Moon Landing. ANGLeS is a great introductory STEM challenge for teams of 2-5 in grades 5-12.

LANDING

Design a Lunar Module that you'll use to recreate the Apollo 11 moon landing. Fly a drone carrying your Lunar Module and land it on a designated landing zone on the lunar surface.



FIRST STEPS



Once your drone drops off your Lunar Module, place your EV3 Lunar Rover on the moon.

OBJECTIVES

Program your Lunar Rover to traverse the lunar surface and complete a series of objectives.



Register a Team at:

<https://nwessp.org/apollo50/>

Contact: Sean.Ryan@nau.edu



NALU NORTHERN ARIZONA
UNIVERSITY

Center for Science Teaching and Learning

FIRST Tech Challenge (FTC)

ROVER RUCKUSSM

FIRST® ROVER RUCKUS Presented by Qualcomm® Incorporated is played on a 12 ft. x 12 ft. (3.7m x 3.7m) square field with approximately 1 ft. (0.3m) high walls and a soft foam mat floor. The object of the game is to attain a higher score than the opposing alliance by descending from the Lander, collecting Minerals from the Crater, sorting and scoring Minerals into the Cargo Hold of the Lander, performing Autonomous tasks, and navigating to specific parts of the Playing Field.

FIRST Core Values

It's way more than building robots. We express the FIRST philosophies of *Gracious Professionalism* and *Coopertition* through our Core Values:

- Discovery
- Innovation
- Impact
- Inclusion
- Teamwork
- Fun



FTC Point of Contact: Mrs. Patti Strones at pstrones@firstinspires.org

Registration will open soon – notify Mrs. Strones to be added to the email list for this event.

