




ALDRIN FAMILY
— FOUNDATION —

Rockets + Rovers

EXPLORE

WITH THE FASCINATING BACKDROP OF SPACE...
COULD SUMMER CAMP GET ANY COOLER?

*AND... WE TIE IN MATH, SCIENCE, GRAPHING, STATISTICS, AND DATA –
ALL THE “BIG IDEAS” THAT ARE CRITICAL FOR TODAY’S GENERATION!*



Rockets & Rovers is a **two-week day camp** targeted toward **6th through 8th graders** in your community. Over the course of six hours each day, students take steps toward **building and operating their own rockets and robots.**

Each day is themed, and throughout the fun and engaging process, students sharpen their practical knowledge of math and science, while building critical communication and collaboration skills.

Let's work together to create an inspirational, educational adventure that will ignite students' passions, but also hopefully shape the trajectory of their lives and grow tomorrow's STEAM-based workforce.

**For more information on conducting a Rockets & Rovers Summer Camp in your district, contact
Jim Christensen | Jim.Christensen@AldrinFoundation.org**



A JOINT MISSION: AFF helps you command your summer camp with confidence. And best yet – all materials remain with the school district upon completion of camp!

Advance training for teachers/
camp leaders prior to the start
of the two-week program

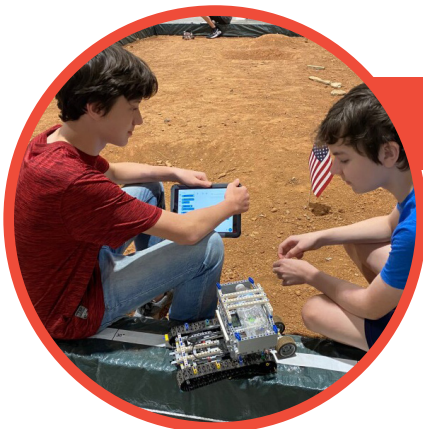
Daily PowerPoint with
detailed notes for teachers/
camp leaders to use when
conducting the daily lessons

All materials and equipment
needed for activities including:
water rockets, MyBots, and
our signature Giant Moon or
Mars Map™ educational tools



ROCKETS (2 HOURS PER DAY)

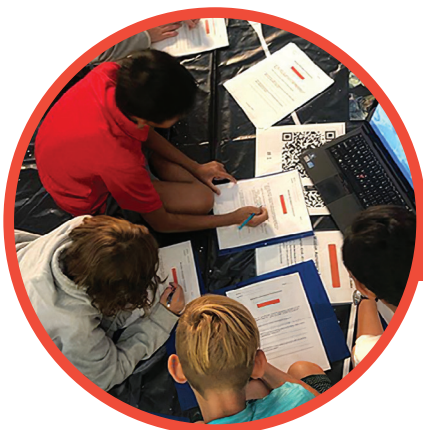
Students construct and launch a water rocket on the first day of camp, as well as learn safe launch procedure practices. With each day of camp thereafter, they manipulate one aspect of their rocket to study the effects on rocket performance. *For example: how does air pressure change altitude? Does the center of gravity of a rocket impact rocket performance? How could the parachute be designed differently to keep the rocket airborne for longer?* With each study, students develop a mission test, assign roles, collect and analyze data, and perform a debriefing.



ROVERS & ROBOTS (2 HOURS PER DAY)

Students work in groups of three and spend the first two days of camp building a MyBot. From there, each team conducts a variety of performance tests to create an operating handbook. *For example – how far does a robot travel in 5 seconds, 10 seconds, etc.? How straight does it travel? What power settings do they need to use to turn the robot?* All these tests use basic block coding skills.

After a few days of performance testing, student teams take their operation handbooks and set their customized MyBots to complete an exploration mission on AFF's signature *Giant Mars Map™*. This enormous 33.5' x 15' vinyl map marks each lander and rover landing sites, Mars topographic features, and more. Students must program their MyBots to traverse a pre-determined course on the map. This exploration mission can also be performed against the background of the Moon using AFF's *Giant Moon Map™*.



COMMUNICATION & LEADERSHIP (1 HOUR PER DAY)

Students finish each day of camp participating in a standard STEM-based lesson that aims to solve a particular problem related to rocketry, robotics, and the Moon. These activities emphasize the development of collaboration skills and the practice of communication skills. These activities culminate each day's learning.