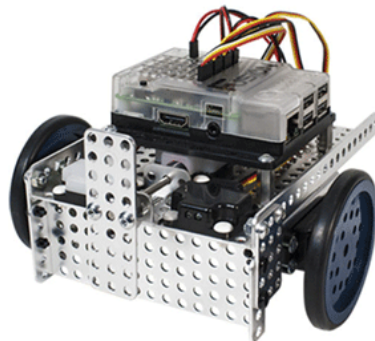




# A Robotic Odyssey: How Robotics Is Helping Prepare Students to Be Tomorrow's Inventors, Programmers, and Astronauts

Jim Christensen, Executive Director of the Aldrin Family Foundation's ShareSpace Education  
Stephen Barker, VP of STEM Education at Boxlight



# What is ShareSpace Education?

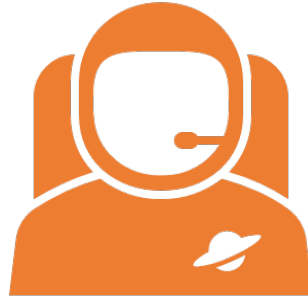


**Aldrin Space Institute**

**Scholarships**

**Space Entrepreneurship  
graduate program**

**Guides exploration research**



**The Aldrin Family Foundation  
strives to cultivate the next  
generation of space leaders,  
entrepreneurs and explorers  
who will extend human  
habitation beyond the Earth  
to the Moon and Mars.**



**ShareSpace Education: Inspire K-12  
students in Science, Technology,  
Engineering, the Arts, and  
Mathematics (STEAM)**

**Giant Mars Map and materials**

**Giant Moon Map and materials**



**ALDRIN FAMILY**  
— FOUNDATION —

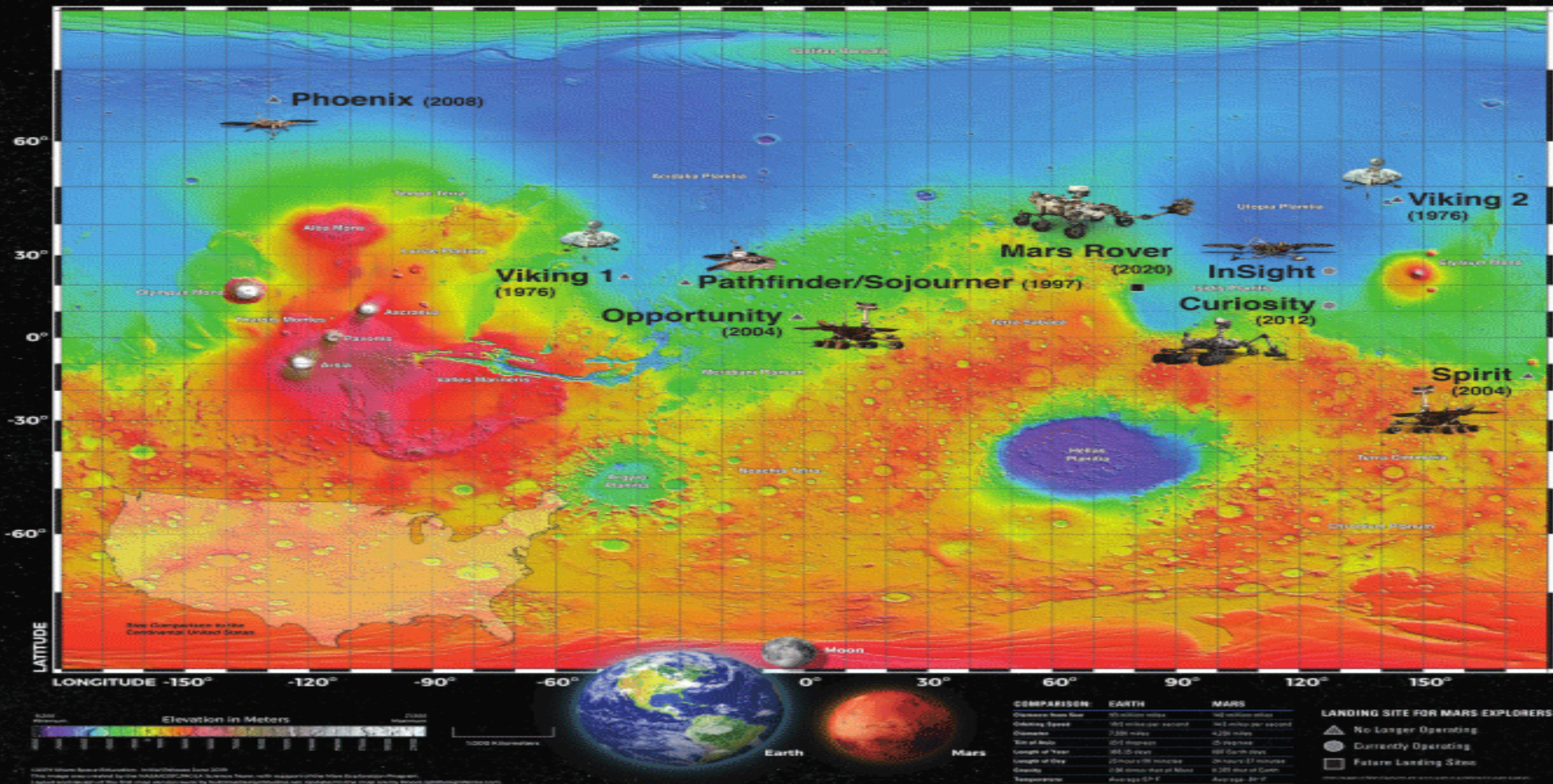


**SHARESPACE**  
— EDUCATION —





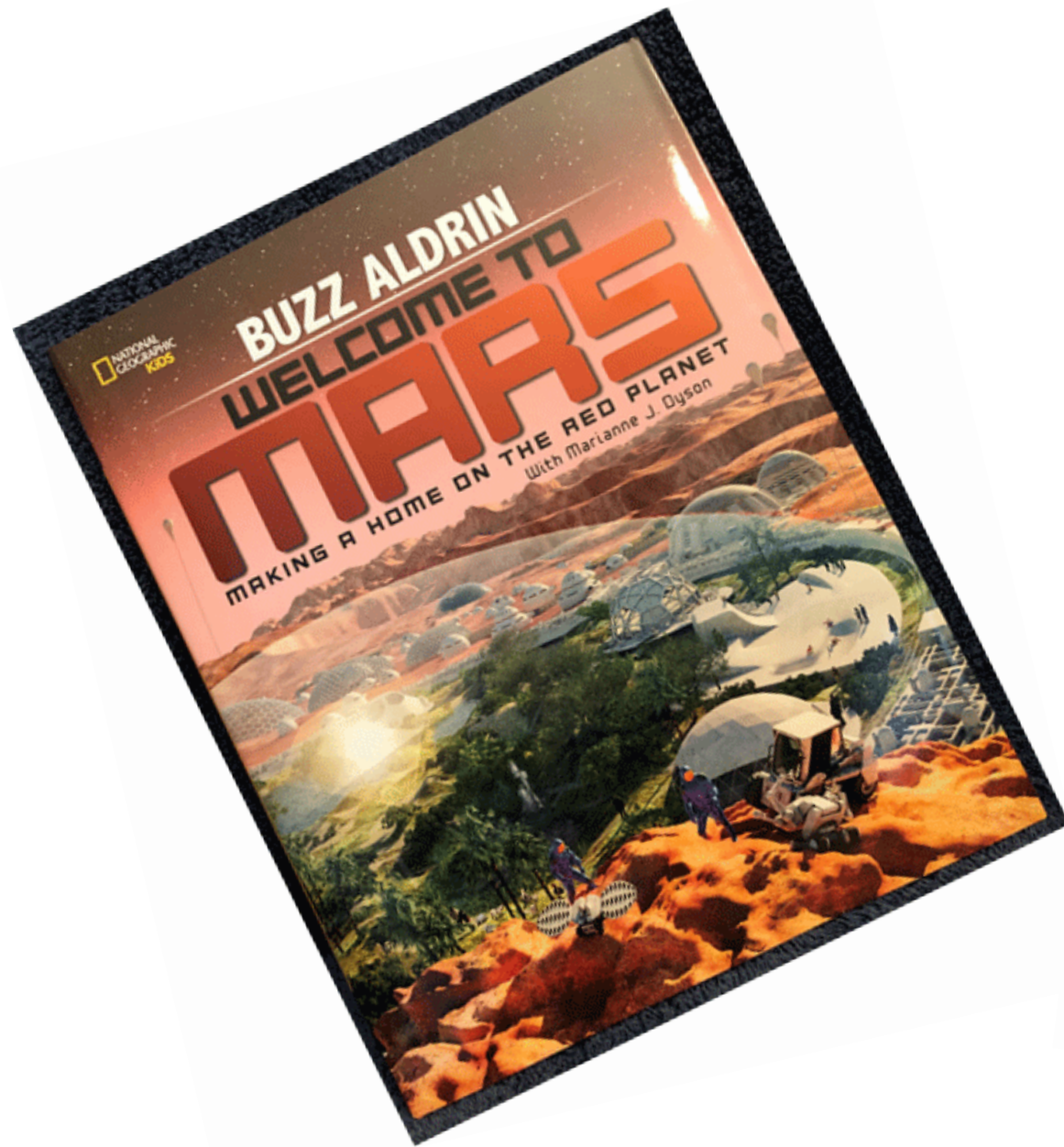
ShareSpace.org

















# Creating Activities: Lesson Design



Communication and  
Collaboration Skills



Science, Technology,  
Engineering, the Arts and  
Mathematics Knowledge  
and Skills



Use of available tools



Meeting classroom goals

# What Activities Have Been Created?

## Moon and Mars Map Education Activities

<https://sharespace.org/education/mars-maps/mars-map-curriculum/>

## Typical structure

Engagement

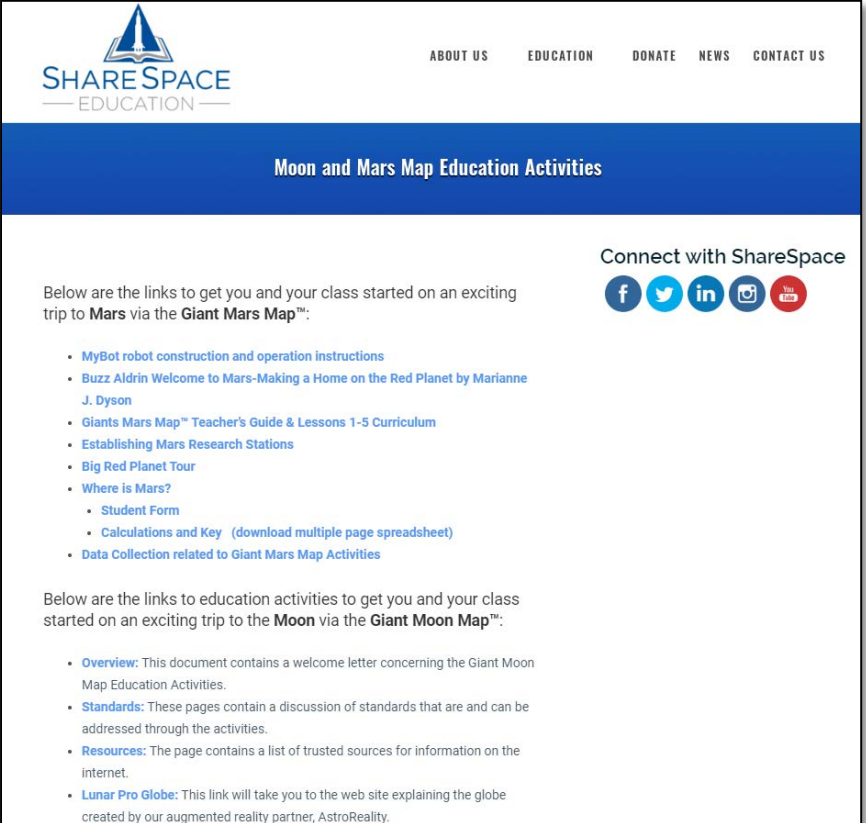
Exploration

Explanation

Extension

Evaluation

More activities are being added, some created by map users.



The screenshot shows the ShareSpace Education website. The header includes the ShareSpace Education logo and navigation links: ABOUT US, EDUCATION, DONATE, NEWS, CONTACT US. The main heading is "Moon and Mars Map Education Activities". Below this, there are social media icons for Facebook, Twitter, LinkedIn, Instagram, and YouTube, with the text "Connect with ShareSpace". The main content area lists links for Mars activities, including "MyBot robot construction and operation instructions", "Buzz Aldrin Welcome to Mars-Making a Home on the Red Planet by Marianne J. Dyson", "Giants Mars Map™ Teacher's Guide & Lessons 1-5 Curriculum", "Establishing Mars Research Stations", "Big Red Planet Tour", "Where is Mars?", "Student Form", "Calculations and Key (download multiple page spreadsheet)", and "Data Collection related to Giant Mars Map Activities". Below this, there is a section for Moon activities, including "Overview", "Standards", "Resources", and "Lunar Pro Globe".



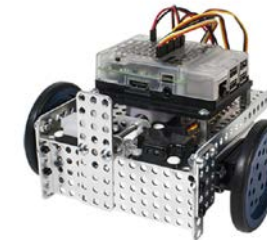
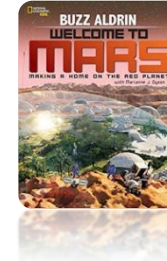
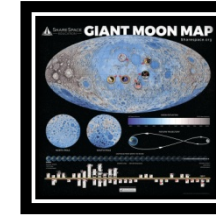
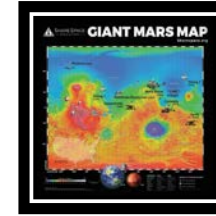
# MyBot, Mars and the ShareSpace Foundation STEM Program





# Mars / Moon Bundle

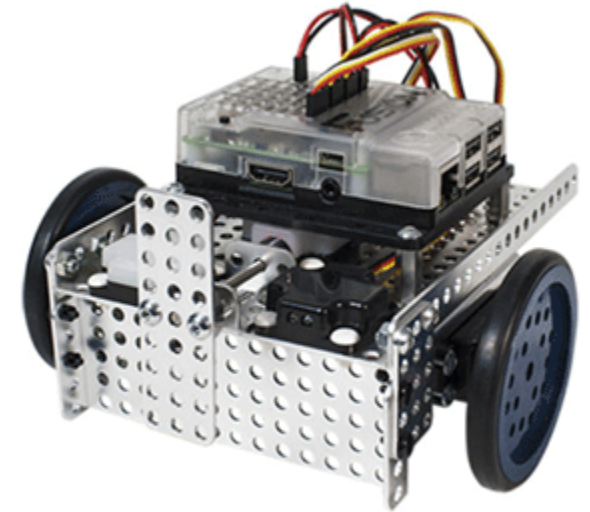
- ❖ 1 Giant Map (15 ft x 15ft or 25 ft x 25 ft)
- ❖ 1 Pro Globe with augmented reality
- ❖ 20 copies of the book “ Welcome to Mars” (Buzz Aldrin)  
or
- ❖ 20 copies of the book “Welcome to the Moon”
- ❖ 10 Mimio MyBot Educational Robot kits including  
10 Sensor packs
- ❖ 1 Mimio MicroCloud Classroom Wi-Fi access point





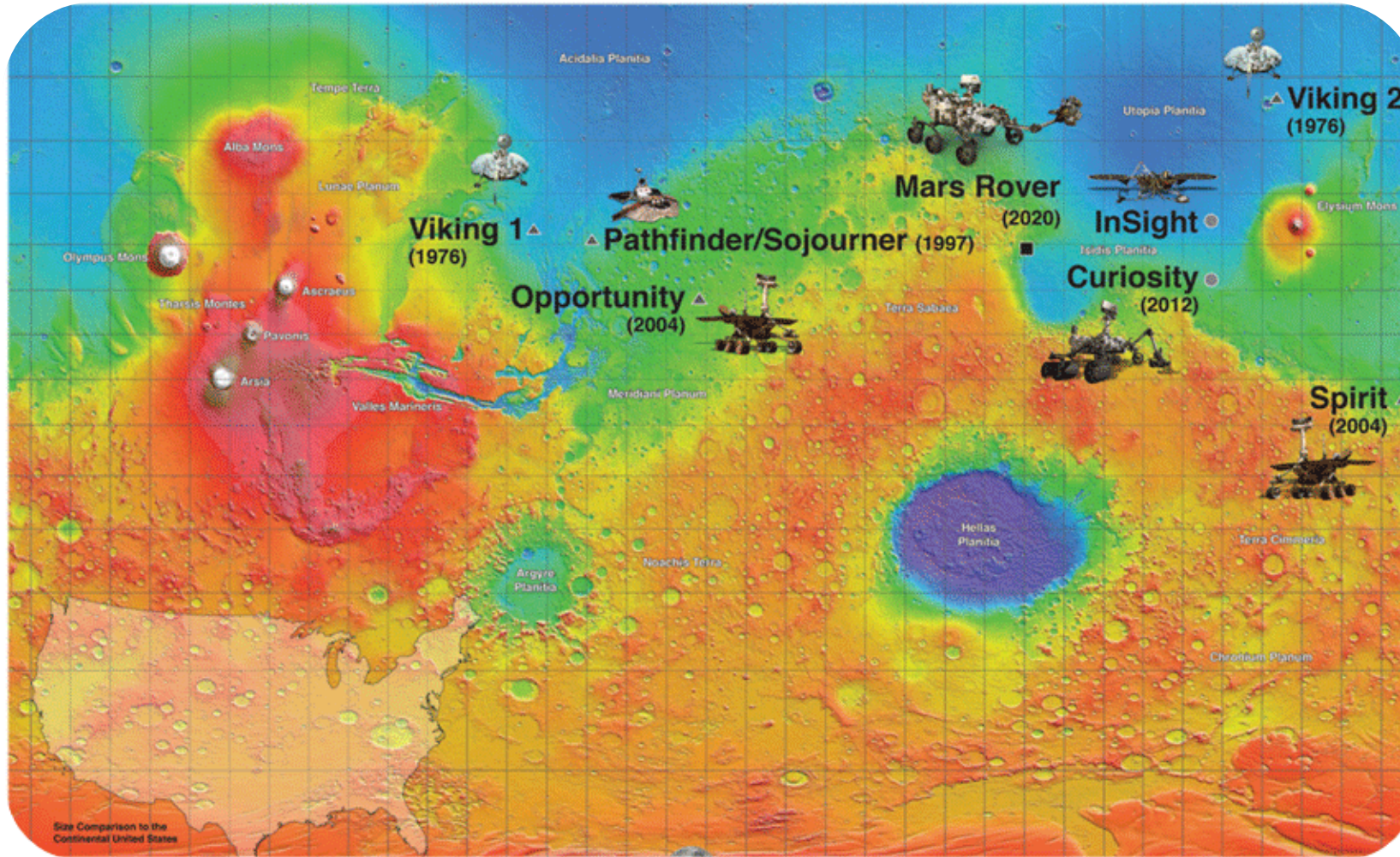
# Activities - Examples

- Let's Start Coding – Learn Blockly Coding
- Advanced Coding – Python Programming
- Let's Make Things Move – Driving the MyBot
- Navigate with Sensors
- Mars – Exploring the Red Planet
- Mapping Mars

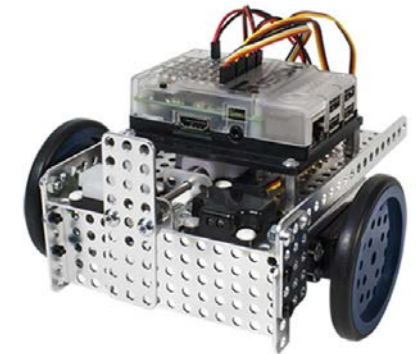




# Addressing Challenges at the Student Level

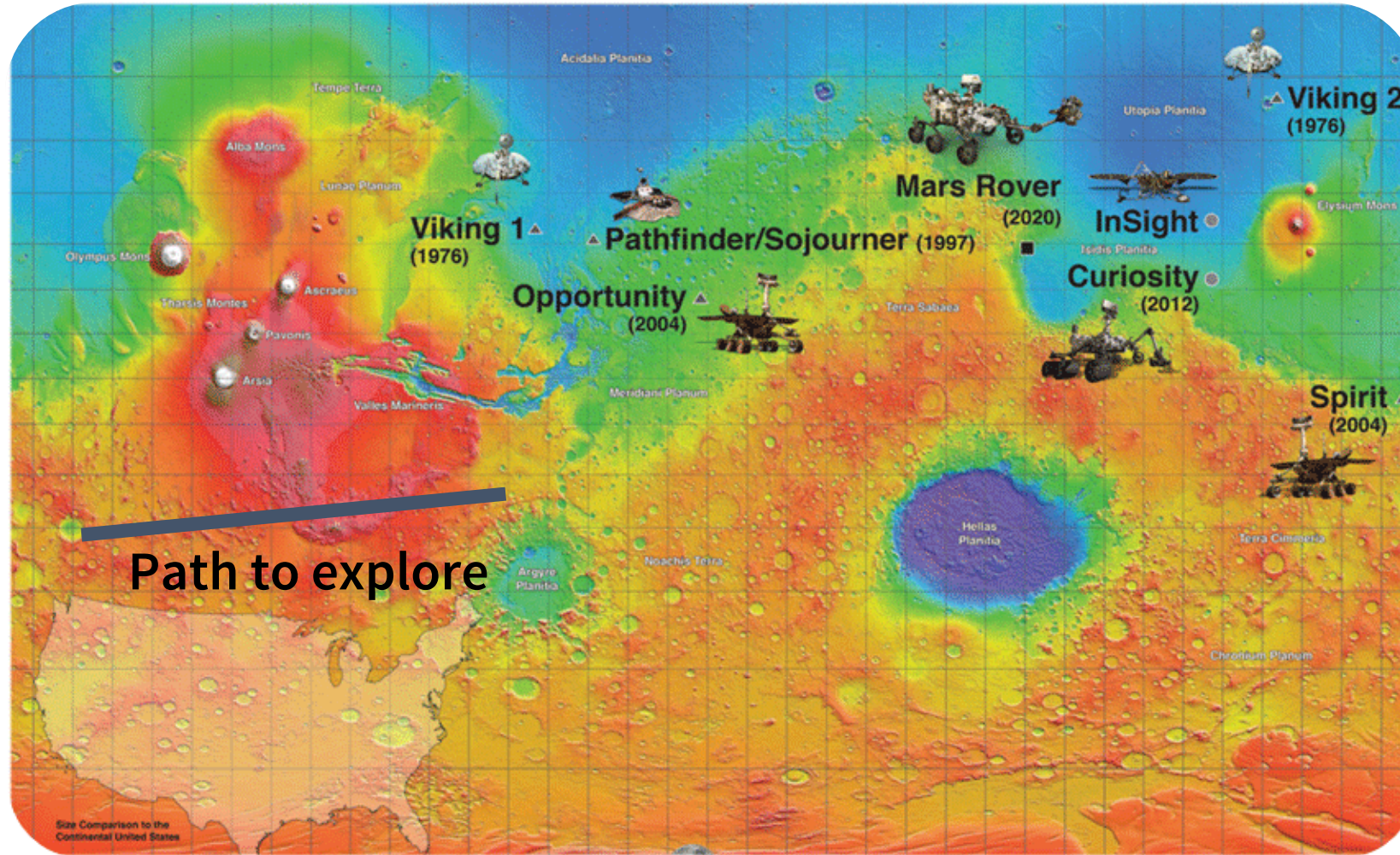


## Mimio MyBot STEM Robotics Solution

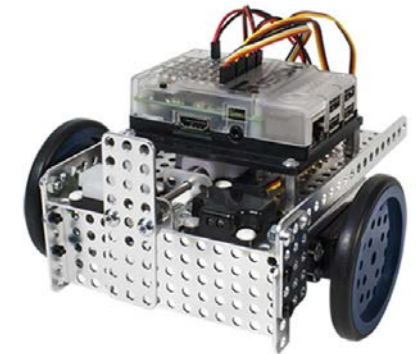




# Addressing Challenges at the Student Level



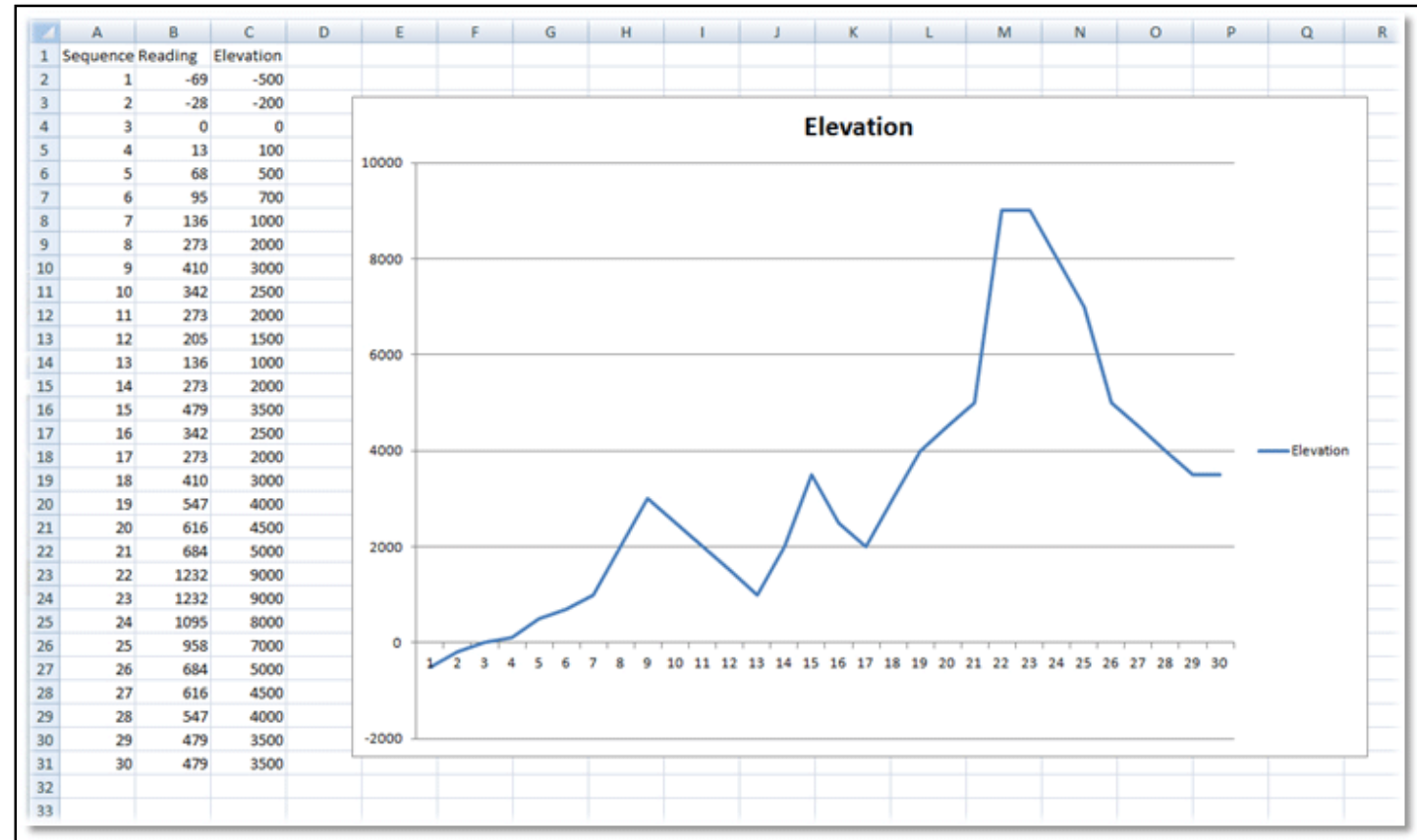
## Mimio MyBot STEM Robotics Solution





# Lesson Series: Using the Giant Mars Map

- A series of lessons using the topography of the Giant Mars Map
- Use the MyBot robot to do a *fly over* recording the contour colors
- Export the data and analyze to create a profile



# Boxlight Webinar Series

## Thank You!

Found this webinar informative? Register for our other upcoming sessions:



### Project-Based Learning Resources for the Classroom

During this webinar, we will dive into the fundamentals of project-based learning. Discover ways to engage students in performance-based tasks that connect students to real-world experts. Lesson examples, rubrics, templates, and other resources will be provided.



Lynn Erickson, Educational Technology Specialist for Stafford Public Schools

Paul Gigliotti, Social Studies Teacher and Tech Enthusiast

October 24, 2019 at 4:30 pm ET

<http://mimio.boxlight.com/fall2019-webinar-sign-up/>



FALL WEBINAR SERIES

Transforming Learning in the Classroom

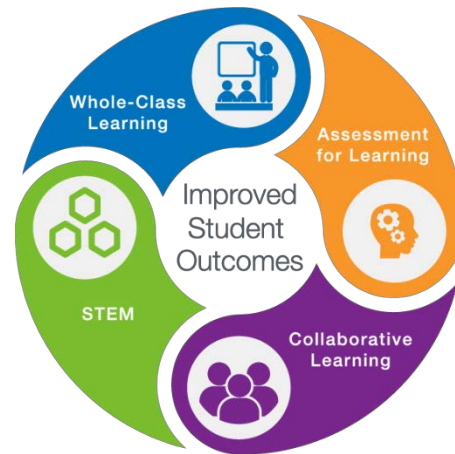




# Boxlight Webinar Series

## Thank You!

Want to learn more about Boxlight's innovative solutions?



[BOXLIGHT.COM](https://boxlight.com)



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