## EXPLORE THE MOON AND MARS

WHILE DEVELOPING CORE SKILLS IN PROGRAMMING, ENGINEERING, AND ROBOTICS

Since the Apollo 11 moon landing 50 years ago, generations of school children have seen how the real-world application of science, technology, engineering, and math (STEM) can lead to awe-inspiring achievements. Boxlight, the Aldrin Family Foundation, and ShareSpace Education (SSE) are partnering to provide students in the fourth through eighth grades with innovative, educational tools for STEM learning.

By integrating ShareSpace's Giant Moon Map<sup>™</sup> and Giant Mars Map<sup>™</sup> programs with the Mimio MyBot educational robotics system, STEM educational activities have never been more fun and rewarding. Through the use of these highly accurate, large scale floor-sized maps, students can be introduced not only to information about these planets, but also learn about map reading, evaluating and understanding topographic information, geology, how planets form, and the effect of impacts on these celestial bodies.

Further exploration is enhanced through the use of programmable Mimio MyBot rovers, which are equipped with various sensors to read information from the maps and return this data to the student mission controllers. Students can then use this information for formulating and testing theories about Mars and the moon, as well as learning how to program the Mimio MyBot rovers for autonomous navigation and investigation. Teamwork and collaboration skills become honed as these multi-disciplinary teams explore, analyze, and make decisions together to complete different expeditions on these fascinating worlds.





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The colorful and unique nature of these giant maps appeals to all grade levels, piquing interest and curiosity. The interactive exploration using these space maps and rovers provides authentic, engaging lessons and activities that help students develop an understanding of real-world, STEM-based concepts while promoting communication, collaboration, creativity, and critical thinking skills.

## **Our Exploration Bundles**

| MOON BUNDLE   | MARS BUNDLE   |
|---|---|
| 1 Giant Moon Map (15 ft x 15 ft)  | 1 Giant Mars Map (15 ft x 15 ft)  |
| 1 Lunar Pro Globe with augmented reality technology   | 1 Mars Pro Globe with augmented reality technology  |
| 10 Mimio MyBot educational robots   | 10 Mimio MyBot educational robots   |
| 10 Sensor Packs: Includes a Color, Integrated Gyro,<br>Magnetic, Optical Distance, and Touch sensor per pack  | 10 Sensor Packs: Includes a Color, Integrated Gyro,<br>Magnetic, Optical Distance, and Touch sensor per pack  |
| 1 Mimio MicroCloud appliance to provide a local Wi-Fi<br>access point   | 1 Mimio MicroCloud appliance to provide a local Wi-Fi<br>access point   |
| 20 copies of Welcome to the Moon  | 20 copies of Welcome to Mars  |
| <ul> <li>Objective, goal-oriented challenges and activities using the<br/>Mimio MyBot rovers and maps, including: <ul> <li>Discovering the difficulties of traveling to and working in<br/>space and on other planets</li> <li>Mapping and understanding the topography of the moon</li> <li>An introduction to programming with the<br/>Mimio MyBot rover</li> <li>Developing programs to collect and analyze data</li> <li>Light, colors, and color detection</li> <li>Magnetism and magnetic fields</li> <li>Navigation and collision avoidance</li> <li>Gyroscopes and their use in navigation<br/>and stability</li> </ul> </li> </ul> | <ul> <li>Objective, goal-oriented challenges and activities using the Mimio MyBot rovers and maps, including:</li> <li>Discovering the difficulties of traveling to and working in space and on other planets</li> <li>Mapping and understanding the topography of Mars</li> <li>An introduction to programming with the Mimio MyBot rover</li> <li>Developing programs to collect and analyze data</li> <li>Light, colors, and color detection</li> <li>Magnetism and magnetic fields</li> <li>Navigation and collision avoidance</li> <li>Gyroscopes and their use in navigation and stability</li> </ul> |
| Optional Upgrades:  | Optional Upgrades:  |
| 1 Giant Moon Map (25 ft x 25 ft)  | 1 Giant Mars Map (25 ft x 25 ft)  |
| 5-unit expansion pack of Mimio MyBot educational robots   | 5-unit expansion pack of Mimio MyBot educational robots   |

Working with functioning, programmable robots on a simulated planetary surface draws students into the mission like no other STEM solution can. The Mimio MyBot system is purpose-built and rugged for classroom use. All of the activities are developed around scientific principles and methodologies.

Begin your journey to the moon, Mars, and beyond with our unique STEM bundle at boxlight.com/aldrinfamilyfoundation.



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