



## **Crew Member Data**

First Name and Last Name:

School / Grade Level:

Date:

## Welcome, crew member!

Before your visit to Challenger Learning Center, you will need to apply for a specific job in the mission.

Read the chart on the following pages to learn more about all of the jobs needed to complete a mission.

In the "Am I Interested?" column, put a check mark or an "x" if this job sounds exciting to you.

Then, rank your top 3 choices, and explain why you think you would be a good candidate for the job.



## **Expedition Mars Jobs**

Team Name	Job Description	Areas of Interest	Career Connections	Am I Interested?
Biology (BIO)	Responsible for collecting data about organisms and environmental factors that impact space exploration, testing soil to determine if microbes are present, and swabbing surfaces for signs of bacteria.	<ul> <li>Environmental science</li> <li>Life sciences (plants, animals, organisms)</li> </ul>	<ul> <li>Biologist</li> <li>Environmental researcher</li> <li>Botanist</li> </ul>	
Robotics (BOT)	Responsible for programming the ROV, testing the capabilities of a robotic arm, and identifying potential dig sites on the Martian surface.	<ul> <li>Engineering design</li> <li>Problem-solving and troubleshooting</li> </ul>	<ul> <li>Mechanical Engineer</li> <li>Software Engineer</li> </ul>	
Geology (GEO)	Responsible for conducting tests on Martian rocks and minerals, recording and analyzing observations, and mapping possible dig sites on the Martian surface.	<ul> <li>Geology (rocks and minerals)</li> <li>Land and water resources and processes</li> </ul>	<ul> <li>Geologist</li> <li>Environmental Engineer</li> </ul>	

Life Support (LS)	Responsible for maintaining the life support systems on the spacecraft by monitoring air and water quality and responding quickly to issues to ensure safe conditions for all members aboard the spacecraft.	<ul> <li>Engineering design</li> <li>Hands-on experimenting and troubleshooting with lab materials</li> </ul>	<ul> <li>Industrial or Systems Engineer</li> <li>Chemist</li> </ul>
Medical (MED)	Responsible for conducting medical tests on the crew to ensure their health and safety, including vital signs and radiation exposure.	<ul> <li>Human anatomy and physiology</li> <li>Nutrition, exercise, health</li> </ul>	<ul> <li>Nurse or Doctor</li> <li>Emergency Medical Technician (EMT)</li> <li>Nutritionist</li> </ul>
Navigation (NAV)	Responsible for calculating fuel levels and plotting the course for the spacecraft, performing critical pre-flight checks, and navigating the spacecraft between Phobos and Mars.	<ul> <li>Flight paths and orbits of celestial bodies</li> <li>Satellite communication and systems</li> </ul>	<ul> <li>Pilot</li> <li>Aerospace Engineer</li> <li>Mathematician</li> </ul>
Communications (COM)	Responsible for communicating messages between the Spacecraft and Mission Control, communicating critical messages to crew members, and locating and reprogramming communication satellites.	<ul> <li>Communication</li> <li>Leadership role</li> <li>Satellite communications and systems</li> </ul>	<ul> <li>Communication Engineer</li> <li>Information technologist</li> </ul>

Rover (ROV)	Responsible for collaborating with teammates to build, test, and troubleshoot the remotely operated vehicle (ROV); and installing critical components and retrieving data.	<ul> <li>Engineering design</li> <li>Hands-on experimentation and troubleshooting with lab materials</li> <li>Composite Scient</li> <li>Mech Engin</li> <li>Elect Engin</li> </ul>	tist nanical neer rical
Weather (WX)	Responsible for researching and learning about celestial objects, monitoring the Martian sky, tracking objects, and calculating trajectories; and tracking and observing dust storms on the Martian surface.	Analyzing data	eorologist enomer



Now that you have read the job descriptions for Expedition Mars, it's time to apply for the job you would like to do for this mission.

Think about your experiences and interests, and fill out the chart below.

Job Ranking	Desired Job	What experiences have you had that would help you do this job?	What interests do you have that would make this job exciting for you?
1 <sup>st</sup> Choice			
2 <sup>nd</sup> Choice			
3 <sup>rd</sup> Choice			