

Mission Instructions: Your Trip to Mars

A large team of people on Earth make decisions to keep you and the other astronauts in your crew safe and help you explore Mars:

- **Flight Director** (FD) leads the flight control team and is responsible for the overall mission. The Flight Director makes all decisions regarding a safe flight.
- **Communications Officer** (Com Officer) serves as primary communicator between the flight control team on Earth and the astronauts.
- **Flight Activities Officer** (FAO) plans and supports the astronauts' activities, procedures and schedules.
- **Flight Surgeon** (Surgeon) monitors the astronauts' activities to keep track of their health, and leads the medical operations flight control team to advise the astronauts on health concerns and issues.
- **Weather Officer** provides up-to-date information on the potential weather or space weather hazards near the spacecraft.
- **Public Affairs Officer** (PAO) provides information to the news media and the public.

Go to each poster and roll one of the dice. Lift the flap of the flight control team member with the number you rolled, then follow the directions. The directions may say to go back to an earlier poster, or move to the next poster.

If the directions say “roll again,” then stay at that poster and roll one of the dice again, and follow the new directions.

Step One Launch

Many factors are important in a launch—the equipment, the astronauts' health, and even the weather! Once your launch is successful, go to the “Travel to Mars” poster.

Go to the “Launch” poster and roll one of the dice to determine whether or not you and the rest of the crew are on your way to Mars!

Step Two Travel to Mars

You travel for eight months to reach Mars. Like on a long road trip, it is sometimes hard for you and your crew to get along in such a small space with little privacy. Thanks to years of practice working as a team, you are all keeping a positive attitude during the long journey, traveling far from your friends and family, and exercising daily to keep your bones and muscles in shape without Earth's gravity.

Go to the “Travel” poster and roll one of the dice to learn what types of issues your crew can face during your trip.

Step Three Start a colony

Once you have arrived at Mars, you need to choose between three activities on Mars. Go to one of the three posters:

Three A. Build a Mars crew habitat

Your habitat was delivered to the surface of Mars by robotic spacecraft, but it is still tightly packaged from the journey and not yet assembled. Are you successful at assembling it?

Go to the “Habitat” poster and roll one of the dice to determine whether or not you are successful at assembling the habitat.

OR

Three B. Grow crops

After surviving so long on freeze-dried packages of food that you brought with you from Earth, you and your crew are hungry for fresh fruits and vegetables! You must plant crops in a greenhouse and tend them for several weeks and months. Are you successful at growing and harvesting the first crops on Mars?

Go to the “Greenhouse” poster and roll one of the dice to determine whether or not you are successful at growing crops.

OR

Three C. Search for ice deposits

You and your crew — and your crops — need water to survive. Water can also be used to manufacture oxygen to breathe or to make rocket fuel. Take a trip to some nearby ice deposits and bring ice back to the colony to melt for water.

Go to the “Ice” poster and roll one of the dice to determine whether or not you are successful at collecting water.

Step Four Return to Earth

You and the rest of your crew have explored Mars and it’s time to return to Earth. It’s been a long trip, but you’re looking forward to being back home again!

Go to the “Return” poster and see how the team on Earth helps your capsule to splash down safely in the ocean.

You and your crew are home after a triumphant mission to Mars! Welcome home!