

A New Age in Space

The Vision for Space Exploration

Credits

National Aeronautics and Space Administration

United Space Alliance, LLC

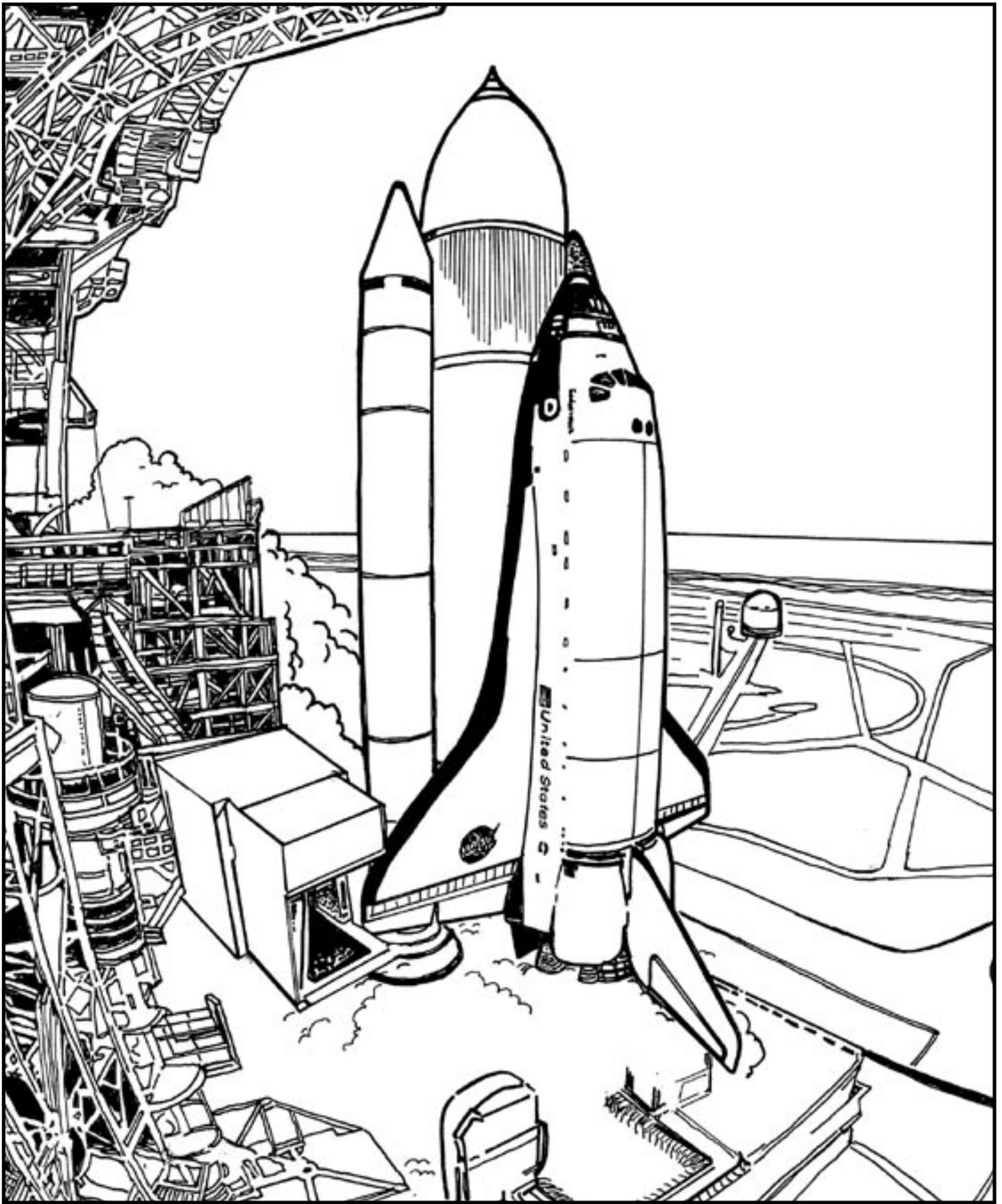
John Frassanito and Associates
Strategic Visualization

Coalition for Space Exploration

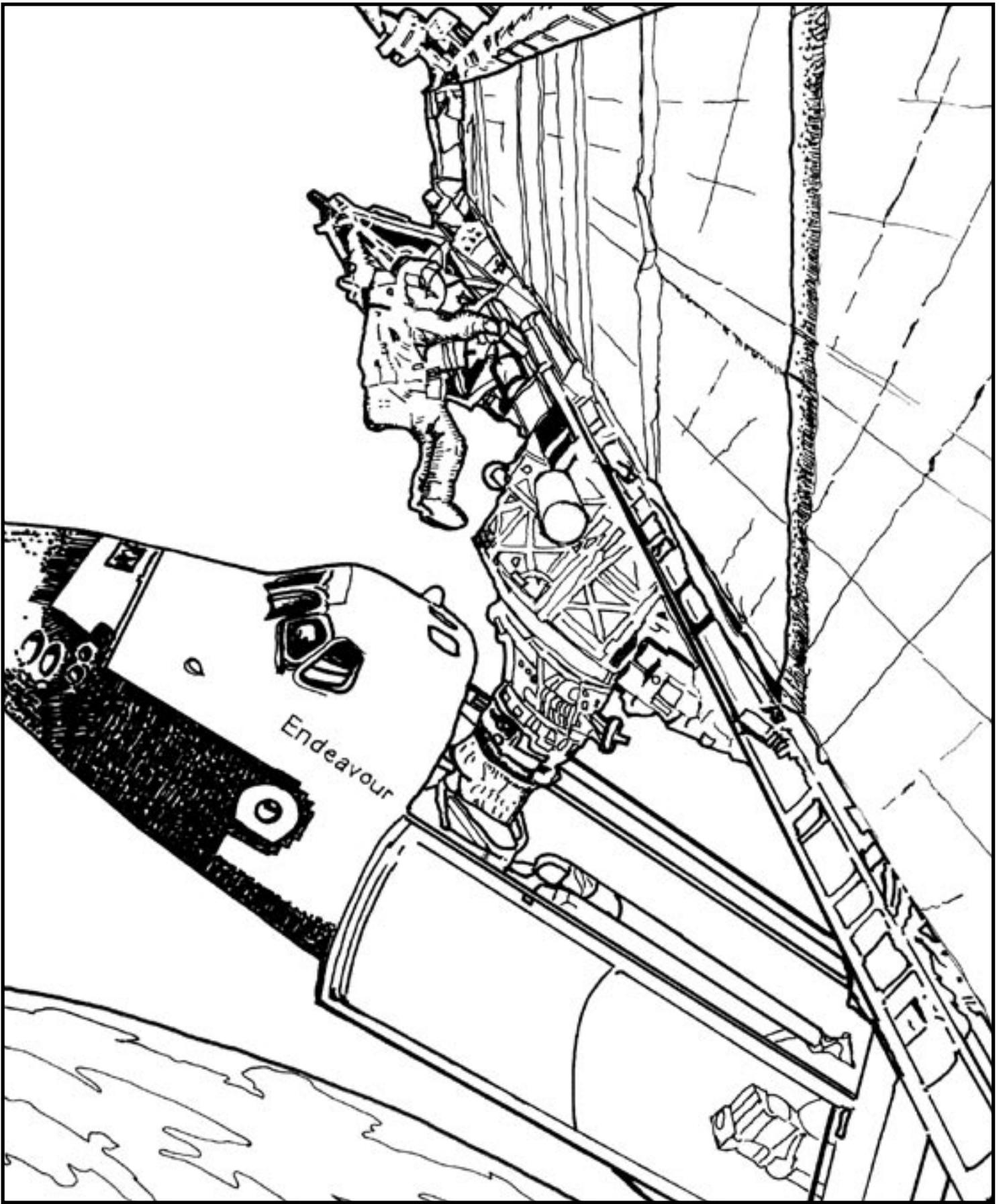
2004 © Bastion Technologies Inc.
17625 El Camino Real #330
Houston, Texas 77058

No claim is made to original government works or those works provided by USA or John Frassanito and Associates; however, the gathering, compilation, digital conversion, and arrangement of such materials are subject to the copyrights of Bastion Technologies Inc.

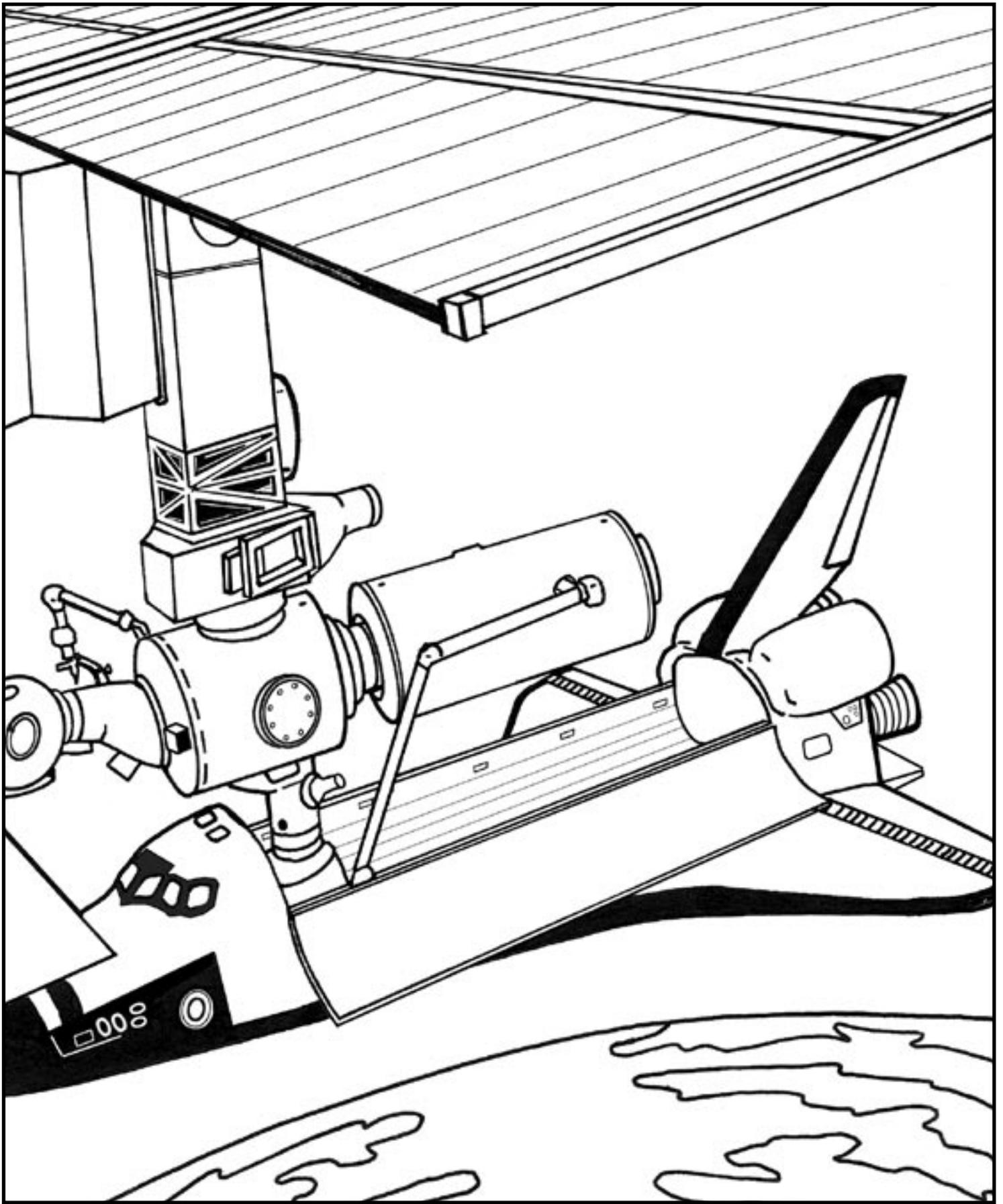
Use, reproduction, and copies made by any other means for purposes such as teaching, scholarship, or promotion of the U.S. Space Program is not an infringement of copyright.



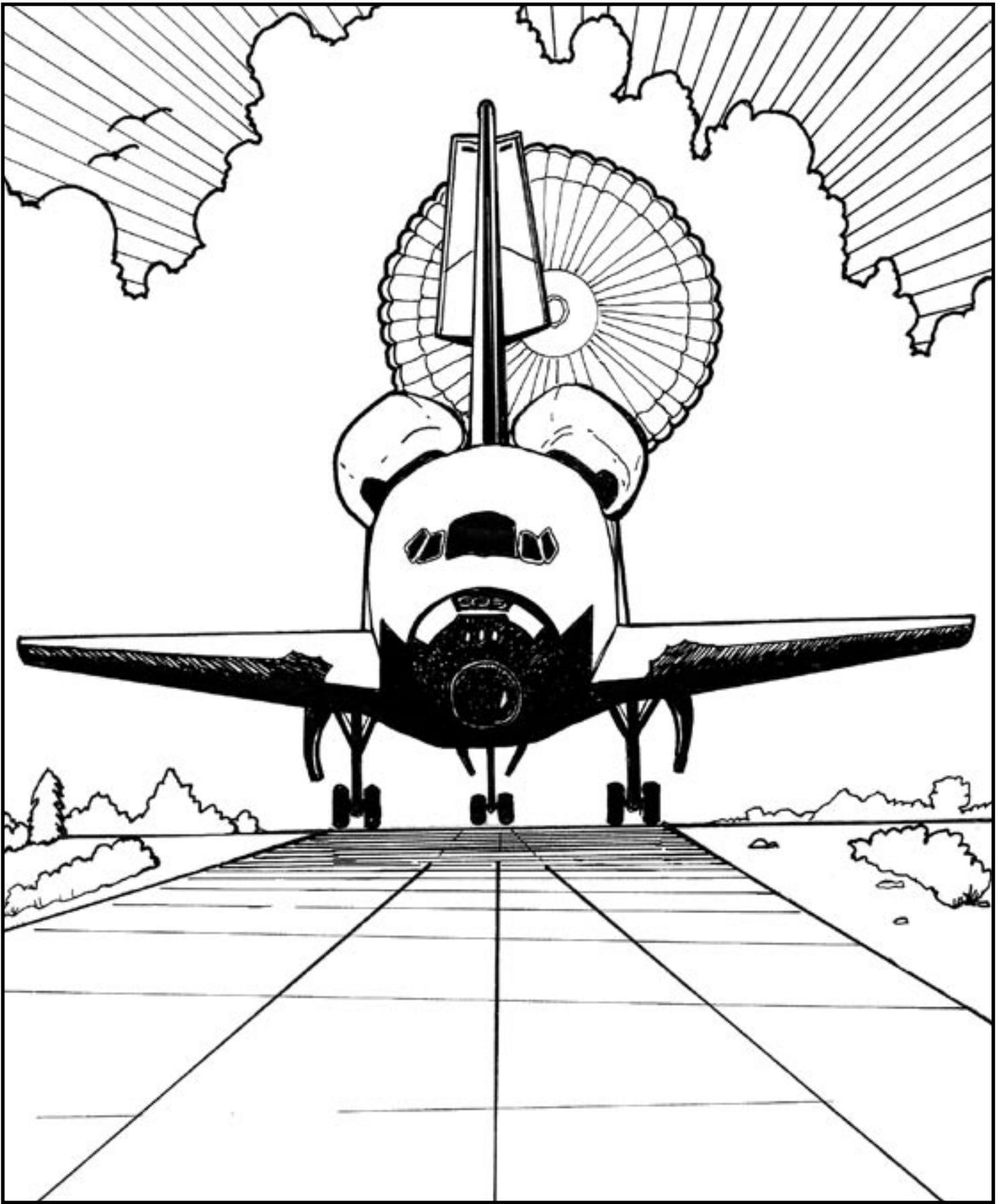
The Space Shuttle returns to flight, and a new age in space exploration begins. Safer than ever, the shuttle launches from the Kennedy Space Center in Florida.



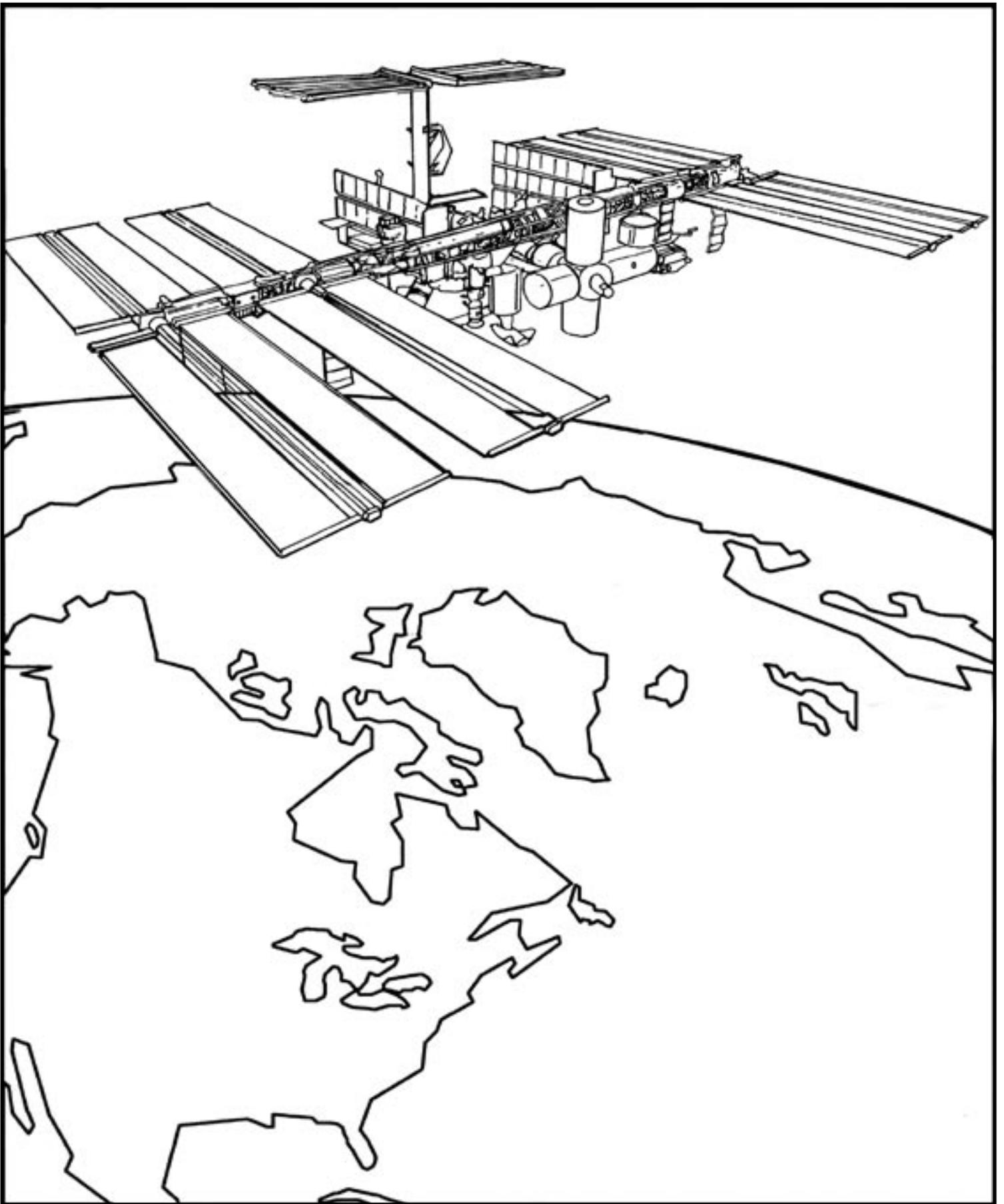
In space, the shuttle docks with the International Space Station. Astronauts can go back and forth between the two space ships.



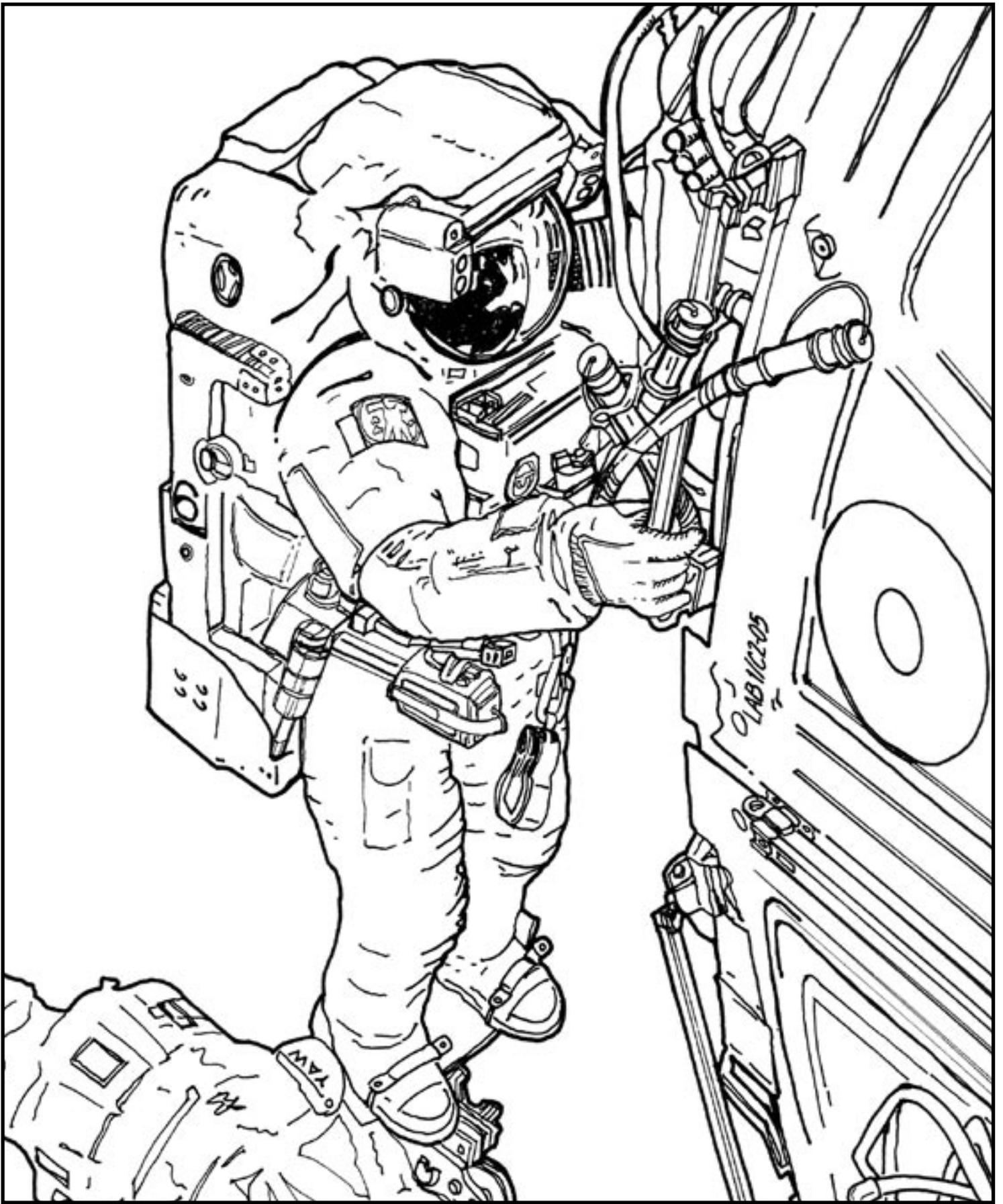
The shuttle can carry very large parts to space. The Space Shuttle's robot arm is helping the astronauts finish building the Space Station.



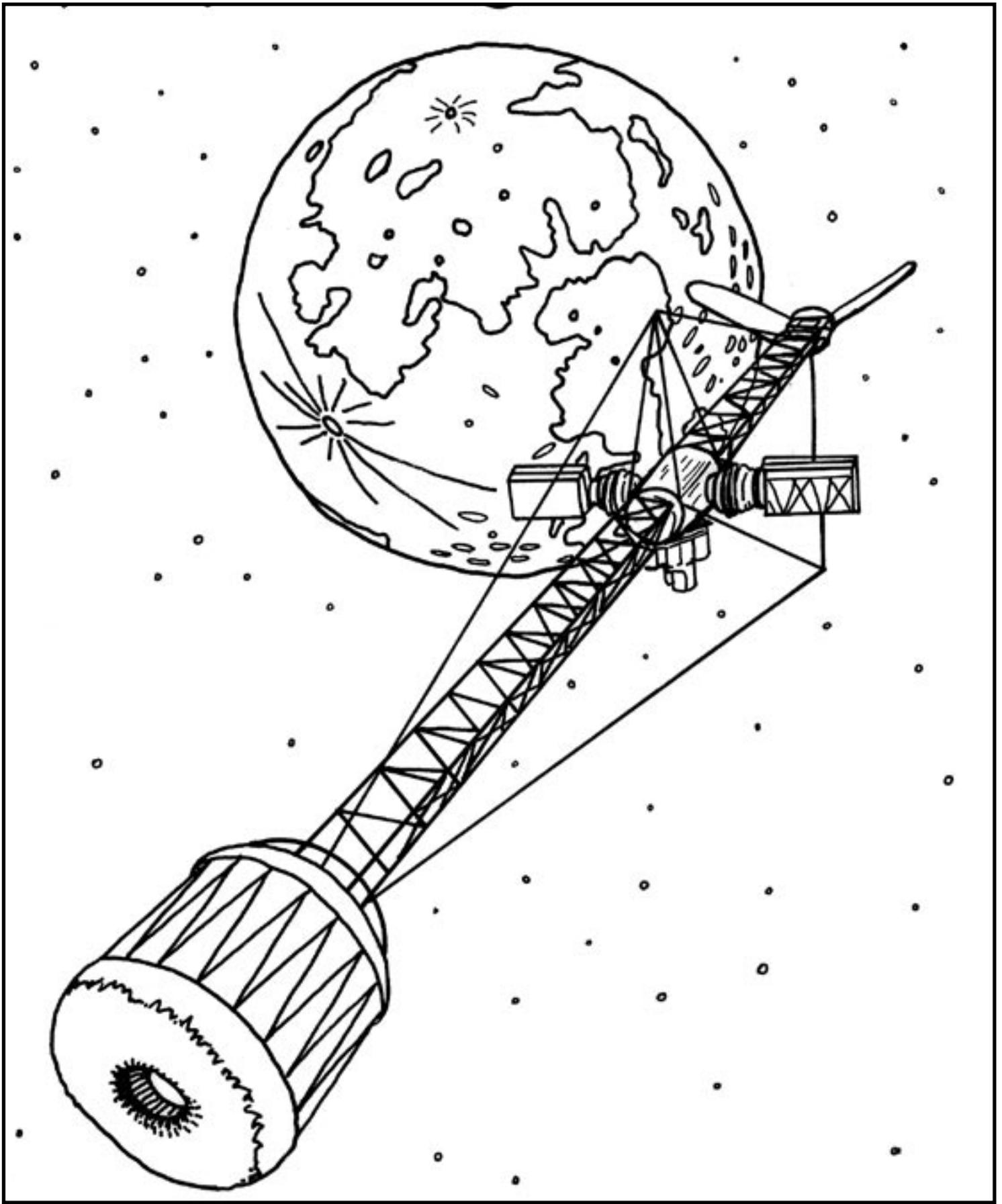
When each mission is completed, the shuttle safely lands back on Earth.



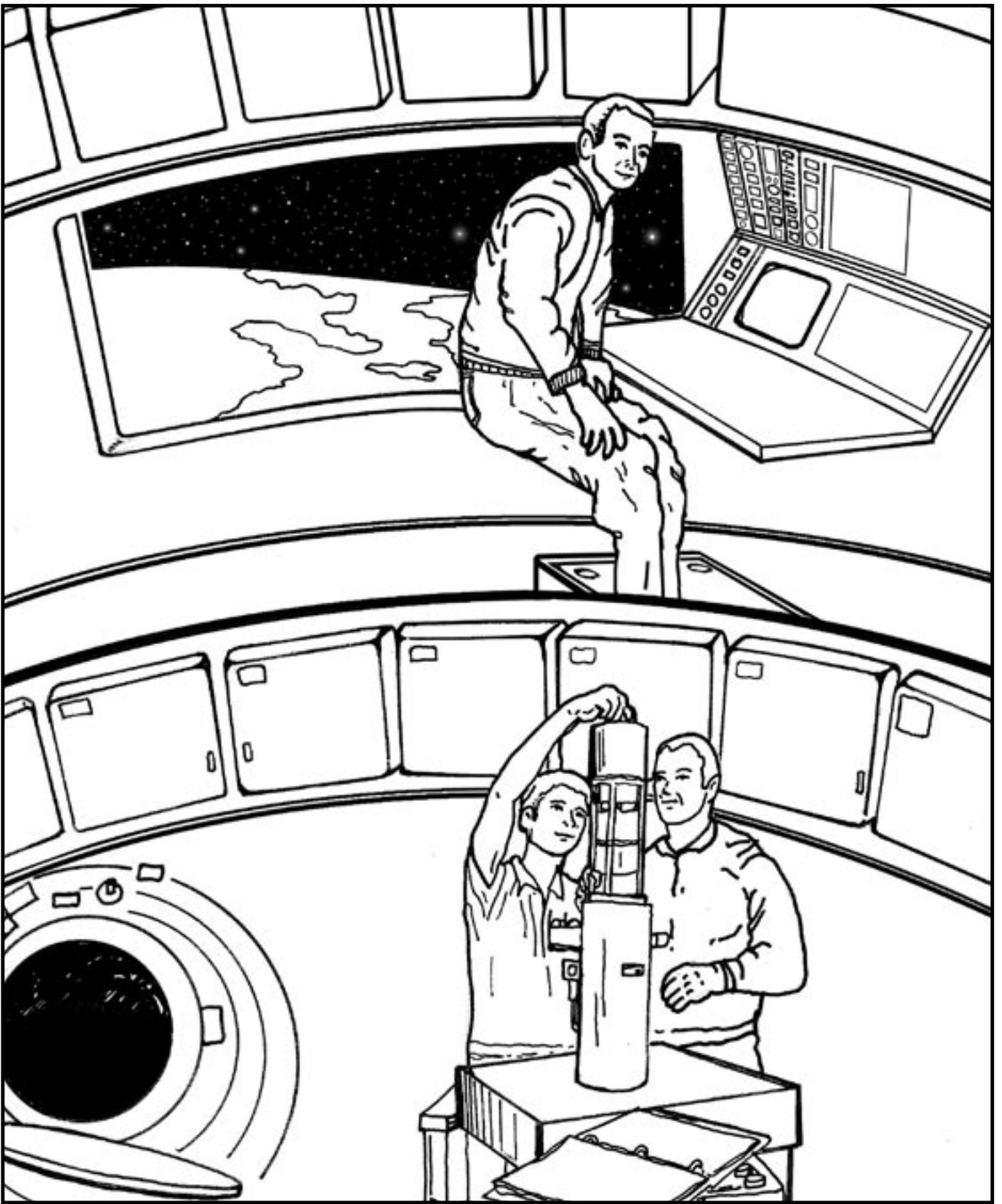
When the International Space Station is finished, people from many different countries will take turns living and working in space.



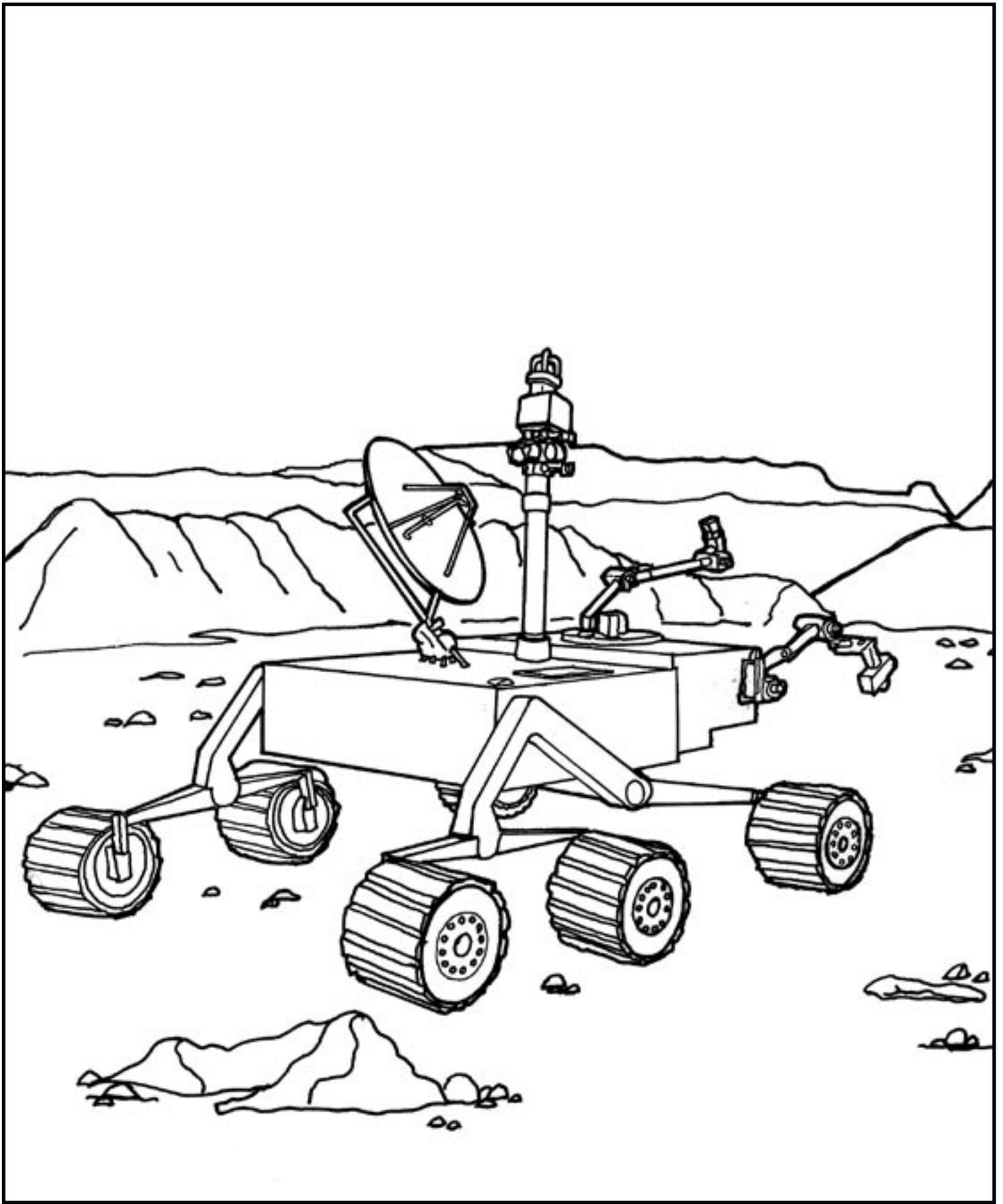
Astronauts will need to take good care of their new home. Experiments done on the International Space Station will prepare astronauts for longer journeys.



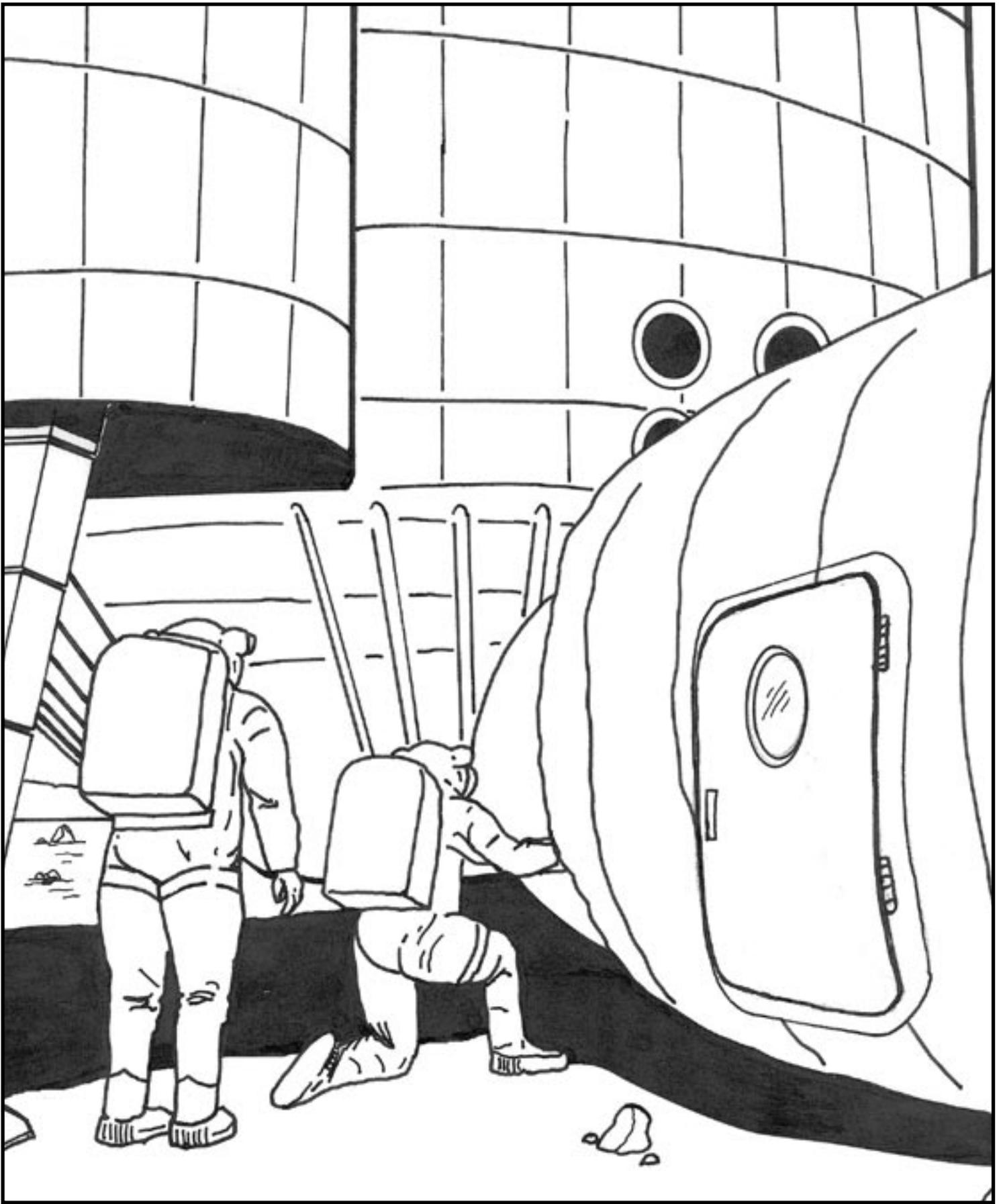
To be able to travel farther into space, a new Crew Exploration Vehicle is needed. The Crew Exploration Vehicle moves closer and closer to the Moon.



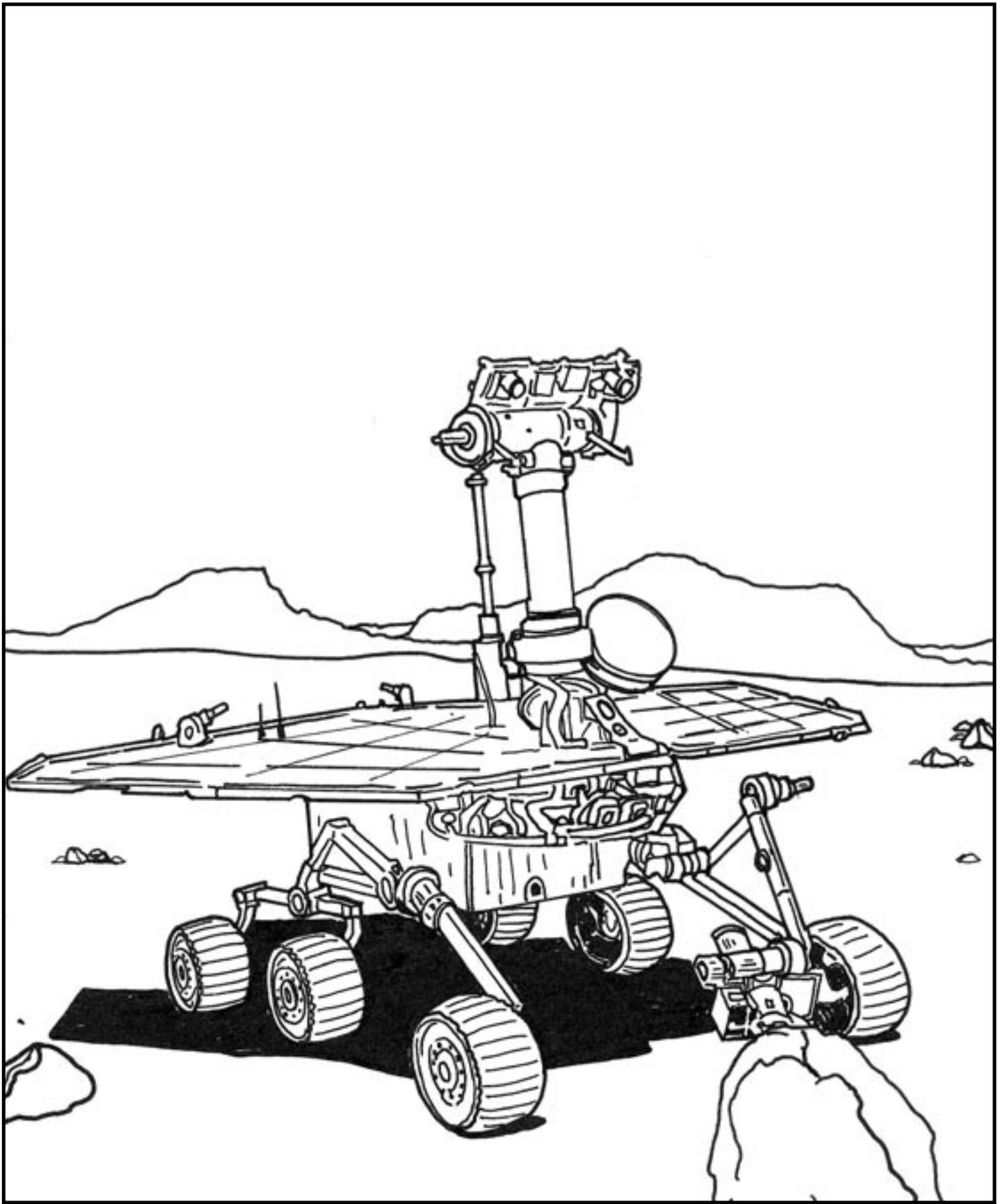
Inside the Crew Exploration Vehicle, astronauts will study space and do important experiments to learn more about the universe.



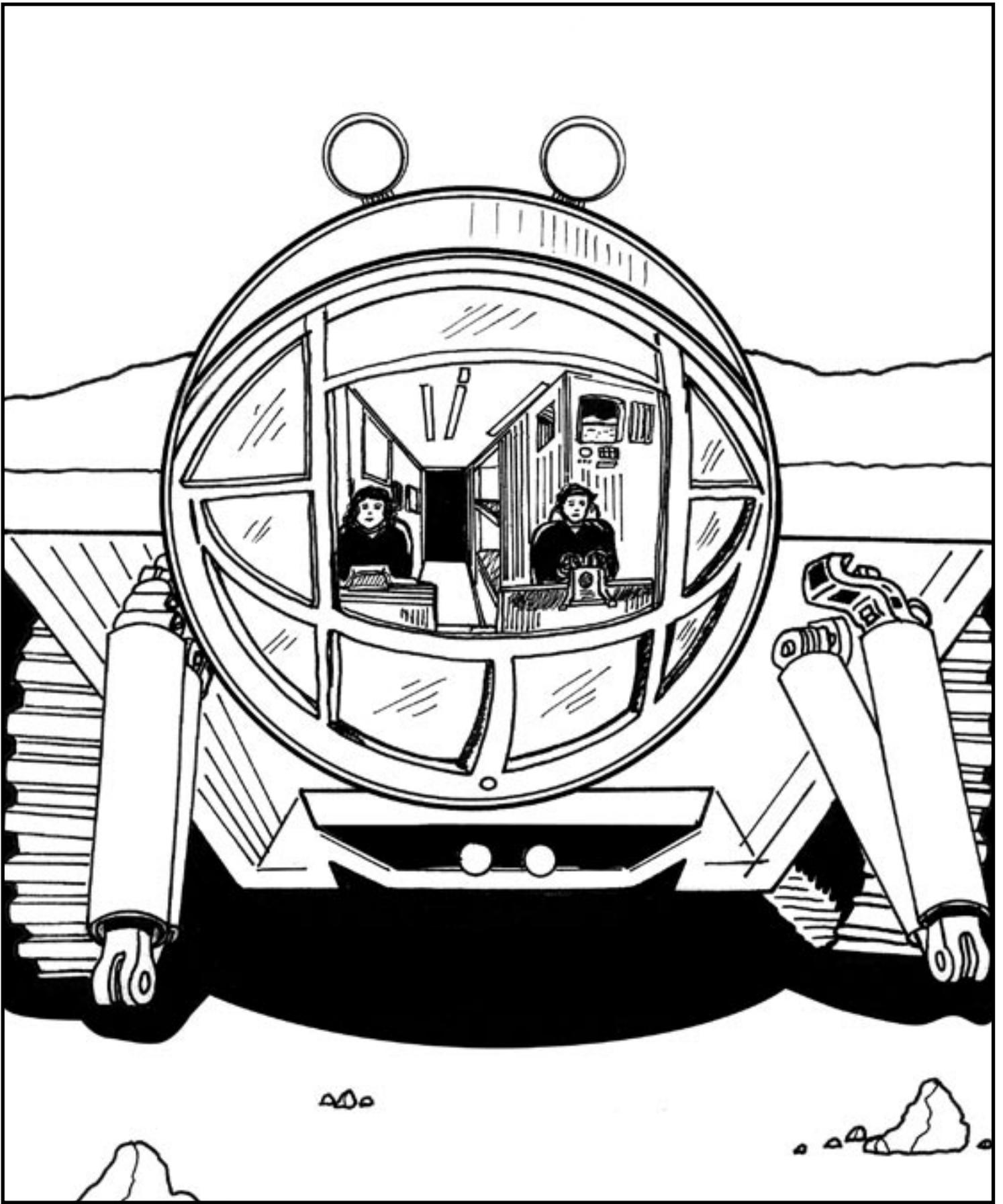
Before people return to the Moon, robots will be used to explore and find good places for landing the spacecraft and for building a lunar base.



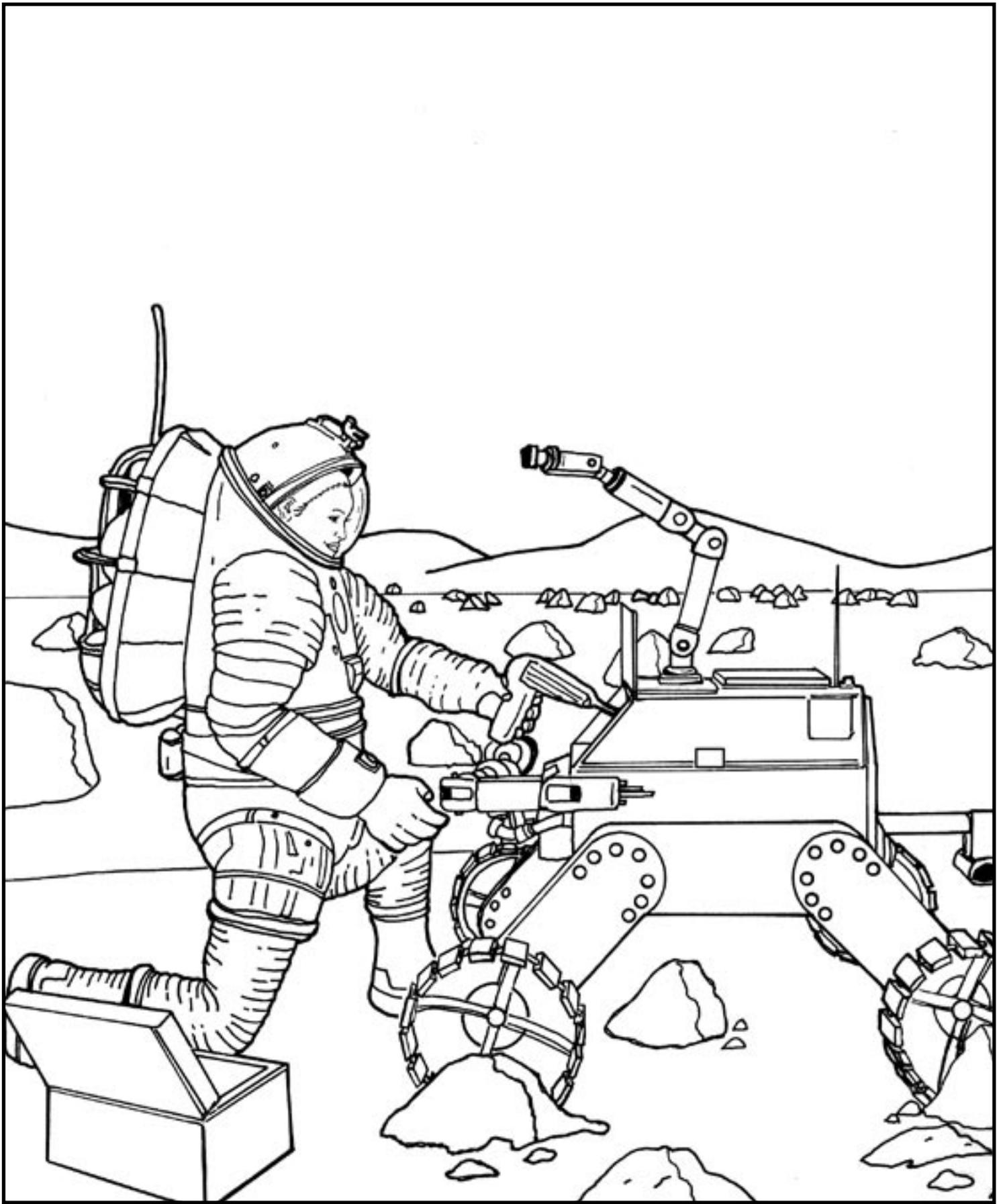
When we return to the Moon, astronauts will build their new home. The astronauts will live and work on the Moon before they go to Mars.



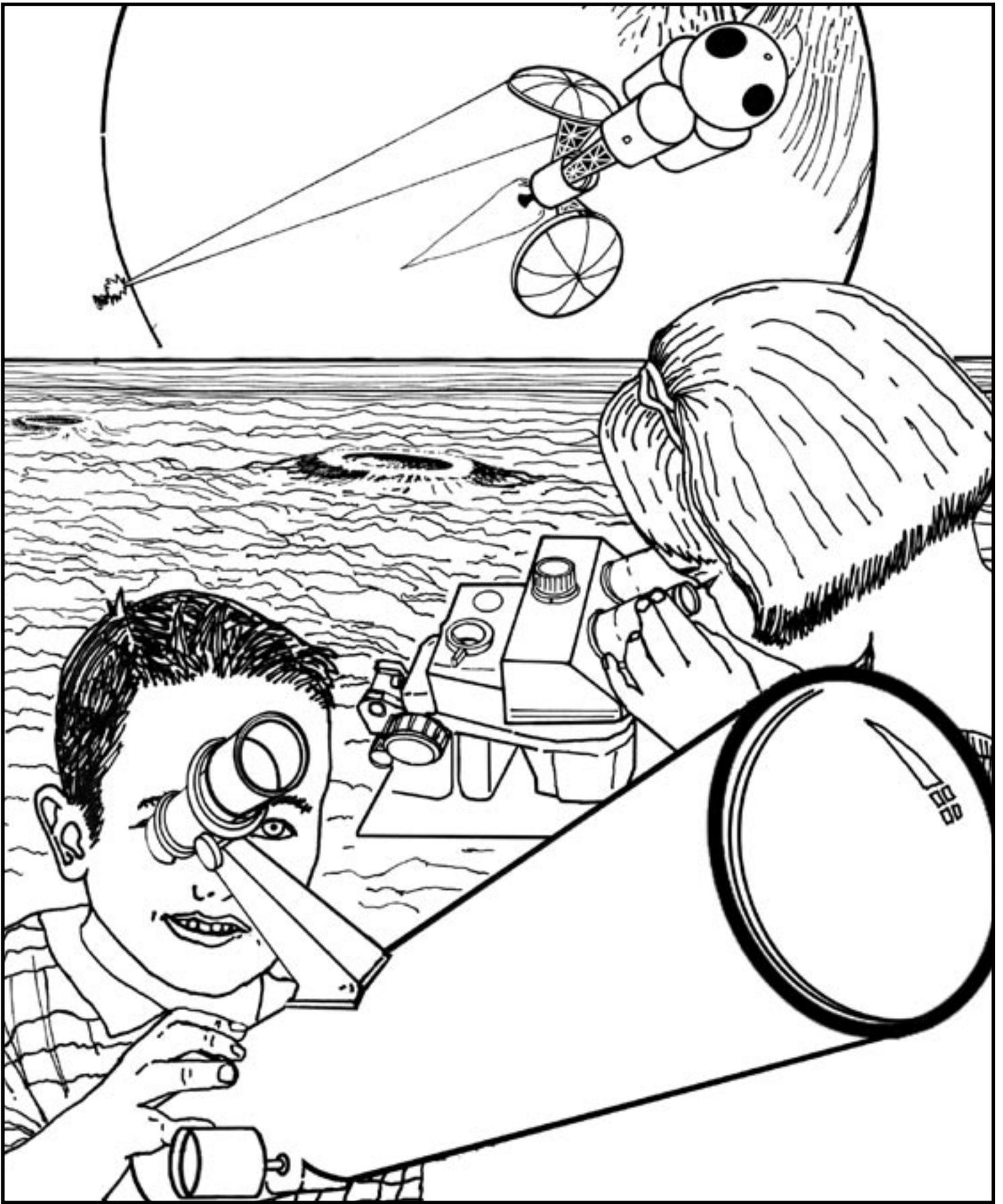
Robots are already being used to explore Mars and are collecting information that will help people live and work on the planet.



Astronauts will need new machines that they can use to explore Mars.



Astronauts will use robots to help them do important science experiments and to learn more about Mars.



One day, people will explore far beyond the Moon and Mars. Maybe you will be one of those people.

Space Talk

These words and definitions are to help you better understand some of the words used in this book and other important ideas about space travel.

NASA - National Aeronautics and Space Administration, which is the government agency in charge of space exploration.

Artificial Gravity - A pretend gravity established inside a spacecraft by turning around or speeding up.

Crew - The Commander, the Pilot, and Mission Specialists (scientists) are members of the crew.

Crew Exploration Vehicle - Spacecraft designed to explore deep space. The spacecraft turns around as it travels in space, which makes artificial gravity. Artificial gravity is healthier for the astronauts.

Deep Space - Any region in space outside our solar system.

Dock - Connect two spacecraft together to make one large spacecraft.

Gravity - The force that attempts to pull objects back to the surface of Earth.

International Space Station - Spacecraft, or satellite, designed to be occupied by a crew for extended periods of time and used as a base for the exploration, observation, and research of space.

Lunar Lander - Spacecraft designed to land on the Moon.

Orbit - The path followed by an object in space as it travels around another object.

Planet - A very large object in orbit around a star (the Sun in our solar system). Planets can be composed mainly of rock or of dense gases.

Robot - A mechanical tool for performing a task that could be done by a human; a machine that can move automatically. Robots are used when the job might be dangerous for a human.

Robot Arm - The robot arm (also called the Remote Manipulator System (RMS)) is controlled from inside the shuttle and is used to help build the International Space Station.

Rover - A six-wheeled robot used to gather information about Mars.

Solar System - The Sun and all things orbiting around it, including the nine major planets, their satellites (moons), and all the asteroids and comets.

Space Shuttle - Reusable spacecraft designed to transport people and supplies between Earth and space. The shuttle launches with an external fuel tank and two solid rocket boosters that are separated from the Space Shuttle when they are no longer needed.