

WORLD OF
ROBOTS

SPACE

ROBOTS



TABLE OF CONTENTS

Space Robots at Work!	4
What Are Space Robots?	8
The Development of Space Robots	14
Space Robots Profile: Spirit and Opportunity	20
Space Robot Profile: Curiosity	22
Space Robot Profile: Robonaut 2	24
Space Robots Profile: SPHERES	26
The Future of Space Robots	28
Glossary	30
To Learn More	31
Index	32

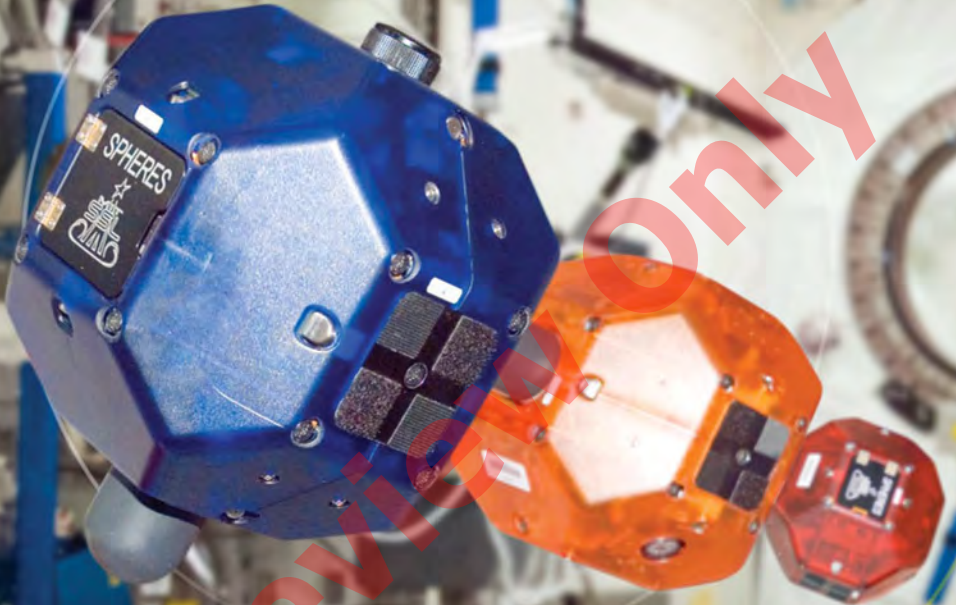
SPACE ROBOTS AT WORK!

Julia could not believe it. She was at the Massachusetts Institute of Technology (MIT) with her team. They watched a giant TV screen. It showed three flying robots the size of volleyballs. The robots, called SPHERES, were on the International Space Station (ISS). Julia and her team were in a contest with teams from all around the world.

The robots spun and flew through the **low-gravity** bay in the ISS. They followed commands that Julia and the United States team had written.







LONG-TERM STAY

SPHERES have been on the ISS for more than ten years.

Julia and her team watched the robots excitedly. Their program was working perfectly. The SPHERES flew together in a line and then broke apart to form a triangle. Little jets on each robot shot out **carbon dioxide** as they changed direction.

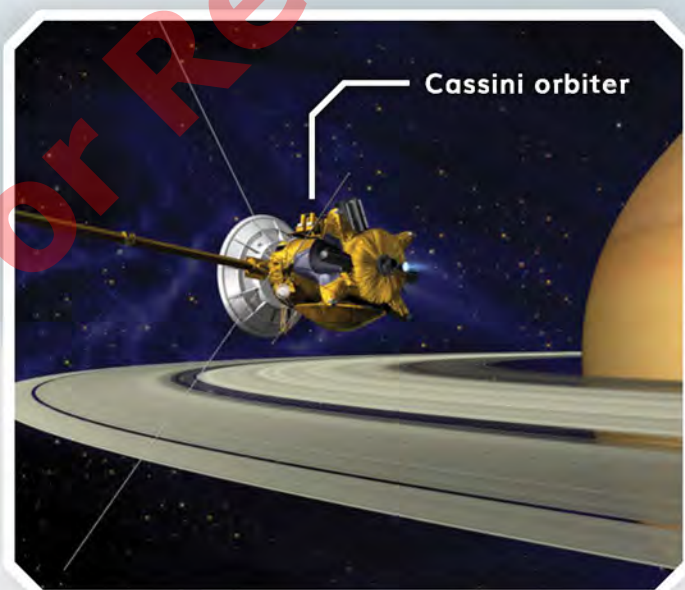
Teams from Italy, Spain, and Russia took their turns after Julia's team finished. When the challenge was over, Italy's team won. But Julia didn't care. She had flown a robot in space!



WHAT ARE SPACE ROBOTS?

Space robots help scientists understand the universe. Robots travel for months and years through conditions that would be **fatal** to a human. They can explore other planets without the need for food, water, or sleep. They gather information and images and send data back to Earth.

Some space robots help astronauts with daily chores. They may work outside the space station. Unlike humans, they do not need a suit to provide oxygen or protect from **radiation**.





Dextre
robotic arm