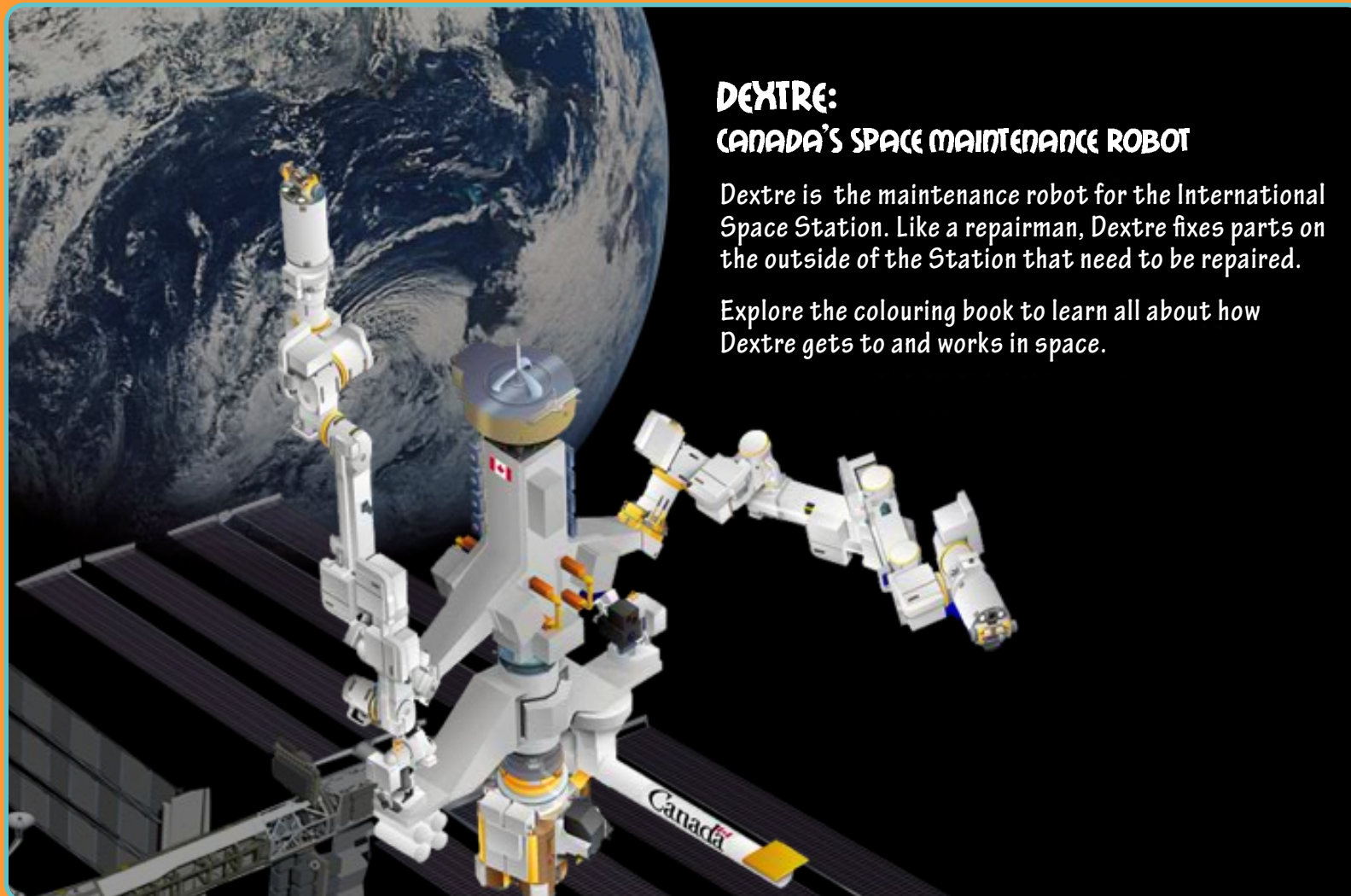


Dextre



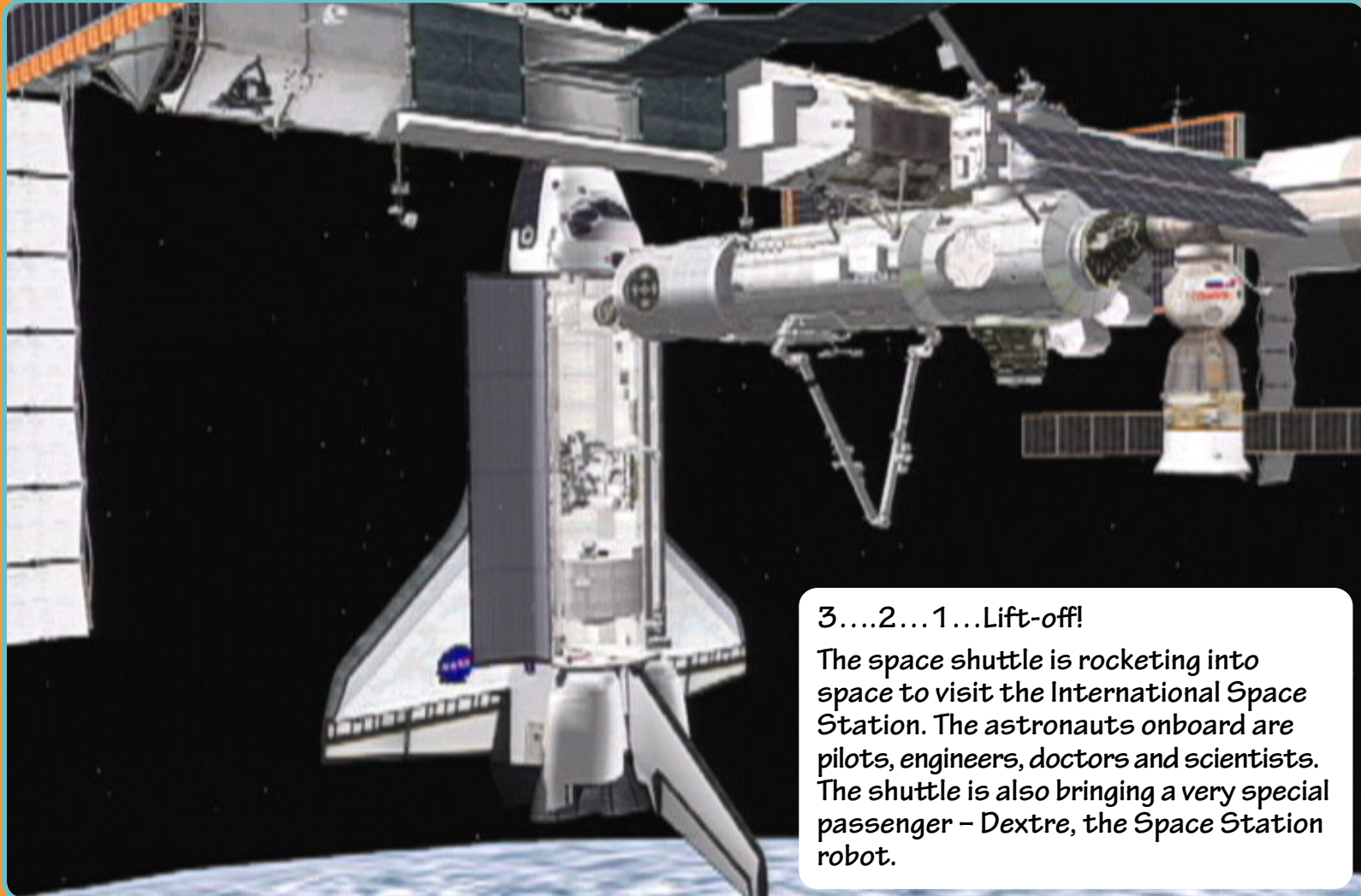
DEXTRE: CANADA'S SPACE MAINTENANCE ROBOT

Dextre is the maintenance robot for the International Space Station. Like a repairman, Dextre fixes parts on the outside of the Station that need to be repaired.

Explore the colouring book to learn all about how Dextre gets to and works in space.

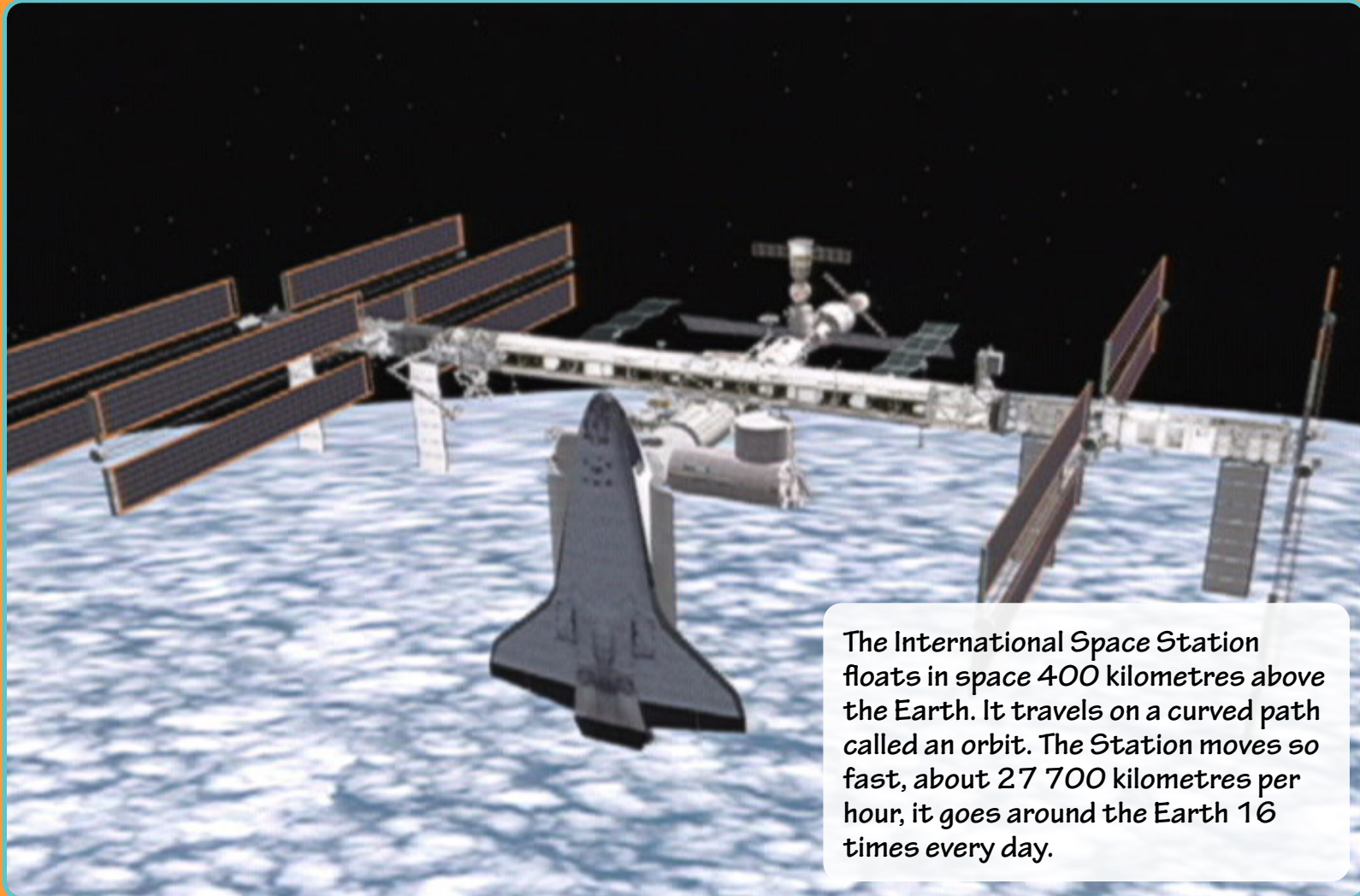
www.space.gc.ca

Dextre



3...2...1...Lift-off!

The space shuttle is rocketing into space to visit the International Space Station. The astronauts onboard are pilots, engineers, doctors and scientists. The shuttle is also bringing a very special passenger - Dextre, the Space Station robot.

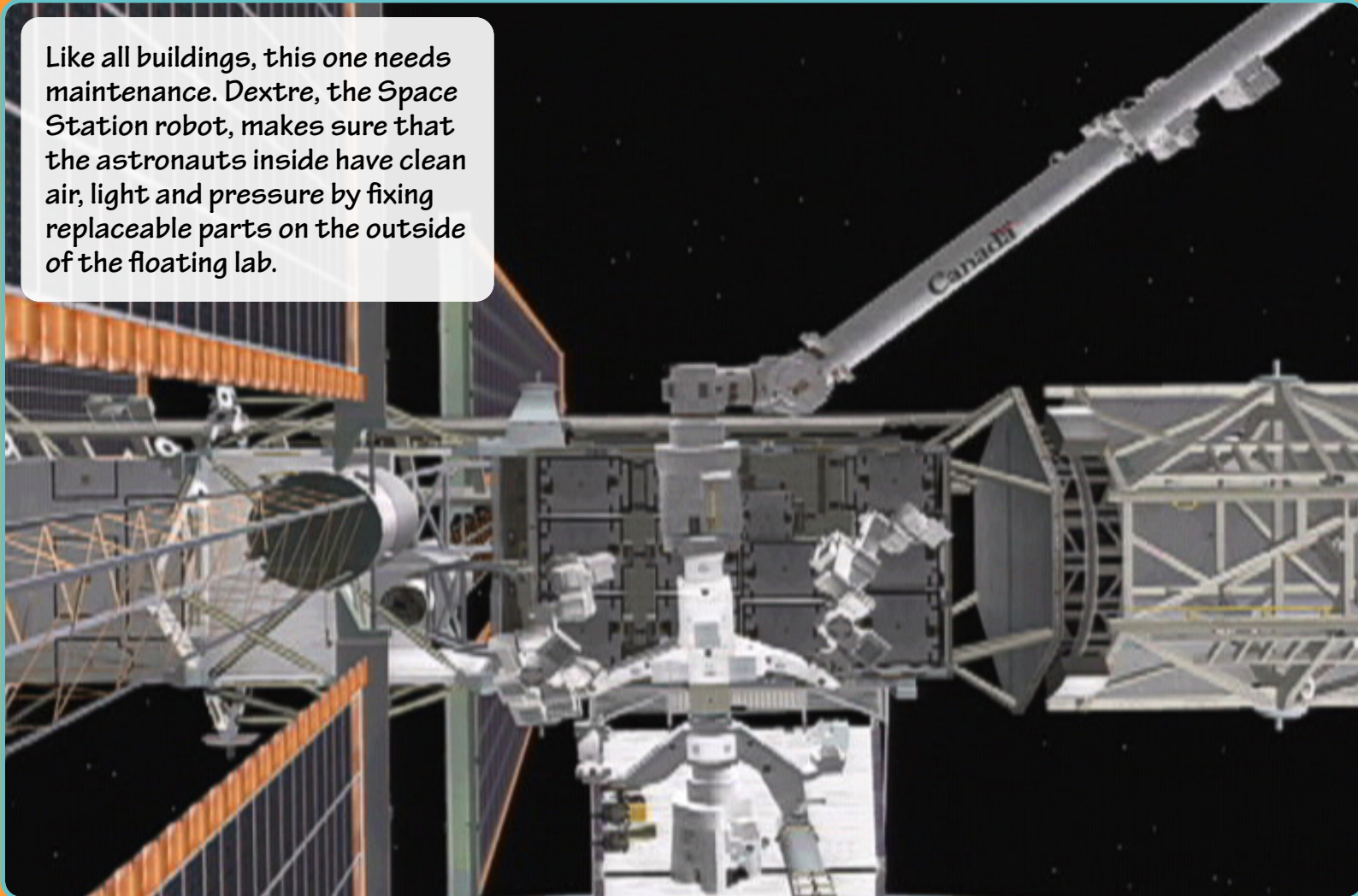


The International Space Station floats in space 400 kilometres above the Earth. It travels on a curved path called an orbit. The Station moves so fast, about 27 700 kilometres per hour, it goes around the Earth 16 times every day.

Dextre



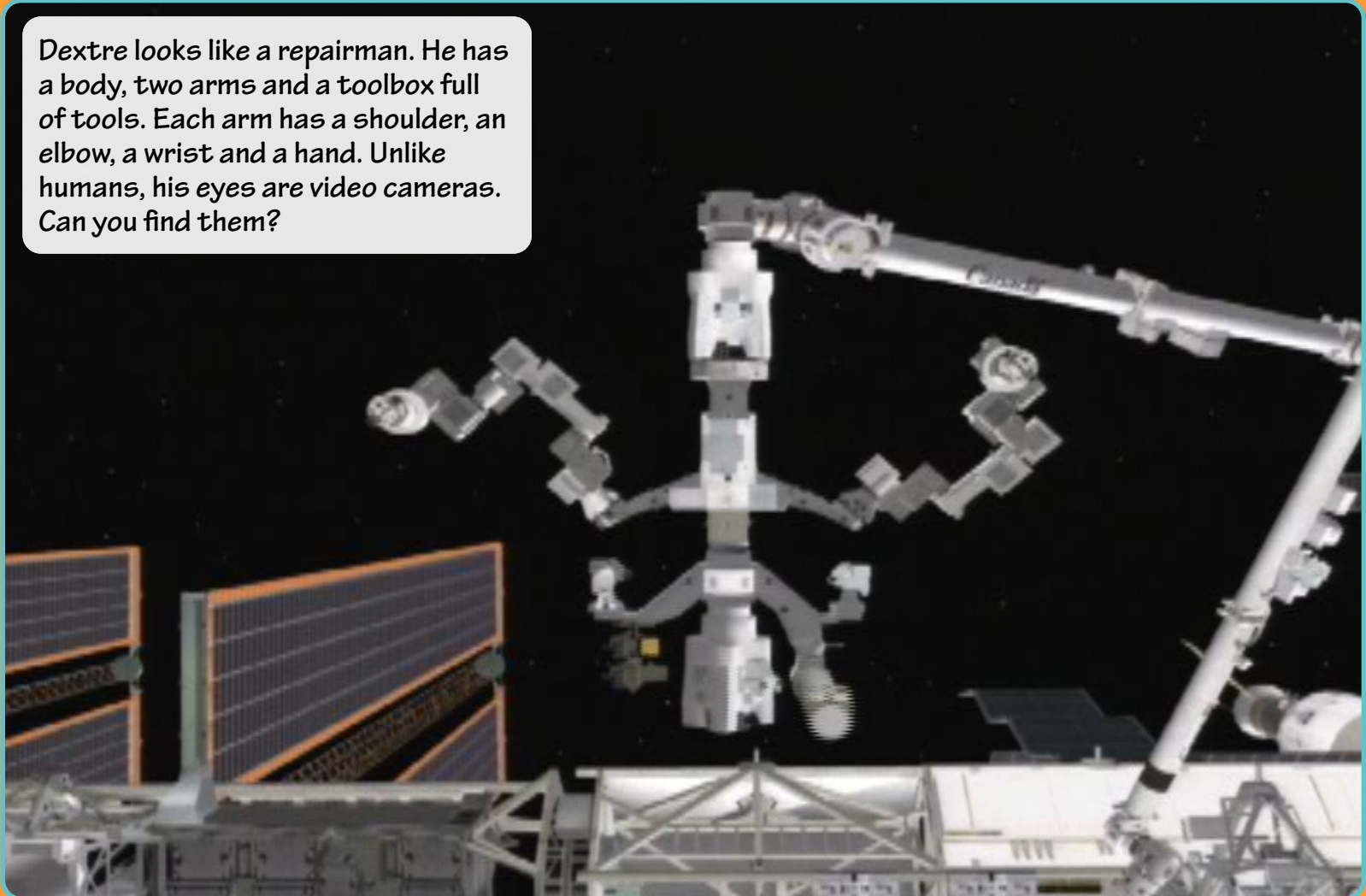
Like all buildings, this one needs maintenance. Dextre, the Space Station robot, makes sure that the astronauts inside have clean air, light and pressure by fixing replaceable parts on the outside of the floating lab.



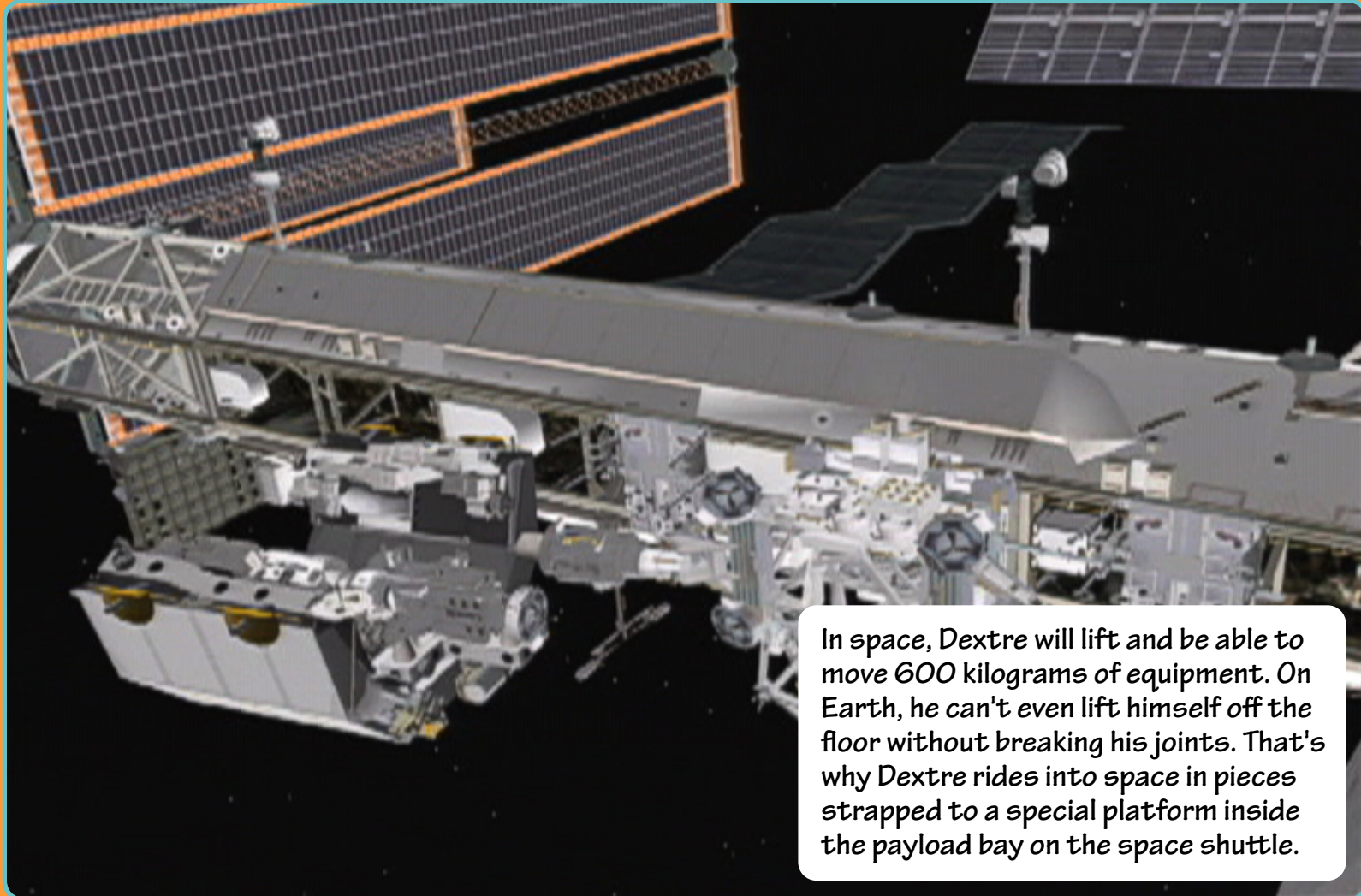
Dextre



Dextre looks like a repairman. He has a body, two arms and a toolbox full of tools. Each arm has a shoulder, an elbow, a wrist and a hand. Unlike humans, his eyes are video cameras. Can you find them?

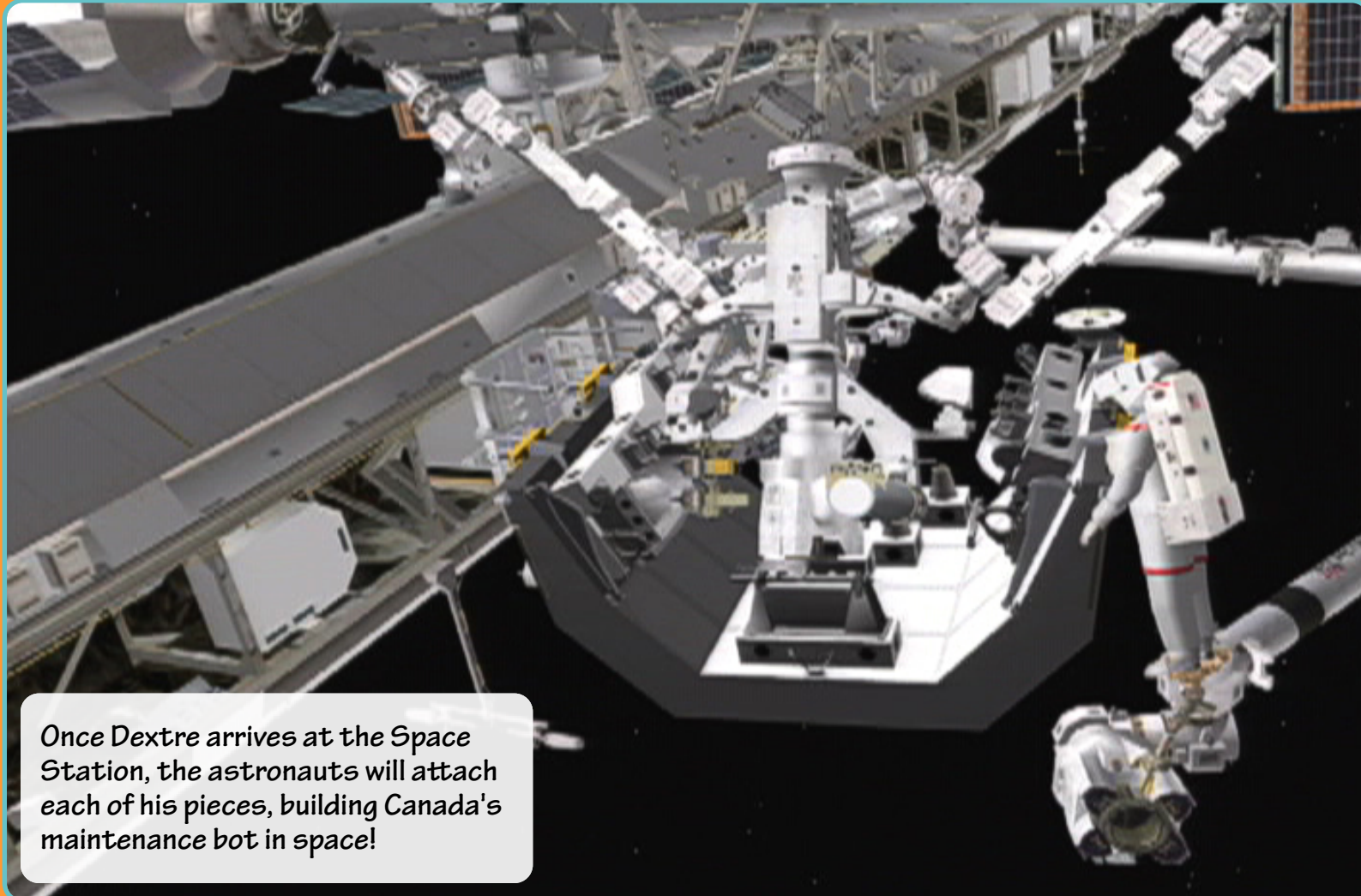


Dextre



In space, Dextre will lift and be able to move 600 kilograms of equipment. On Earth, he can't even lift himself off the floor without breaking his joints. That's why Dextre rides into space in pieces strapped to a special platform inside the payload bay on the space shuttle.

Dextre

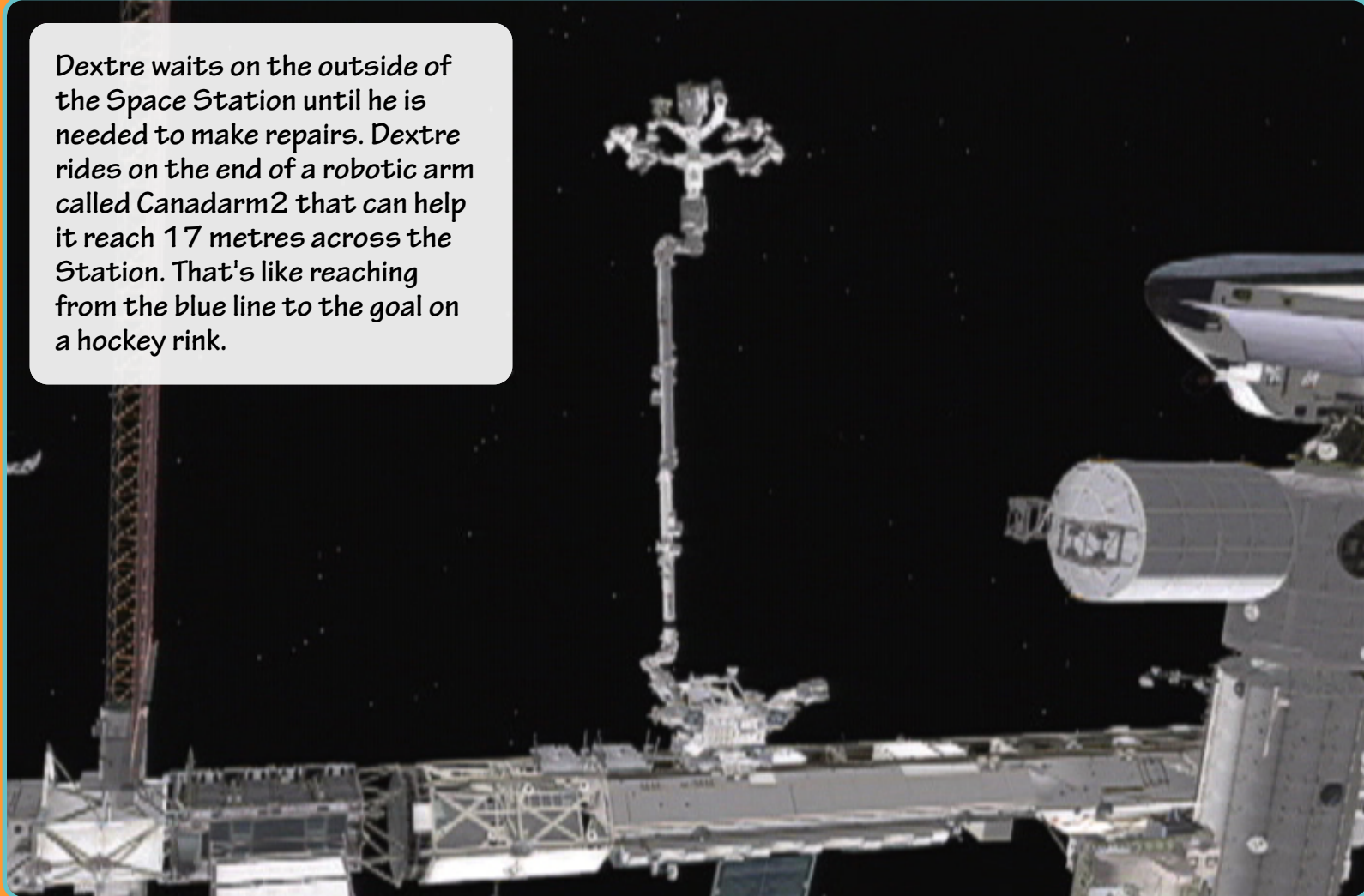


Once Dextre arrives at the Space Station, the astronauts will attach each of his pieces, building Canada's maintenance bot in space!

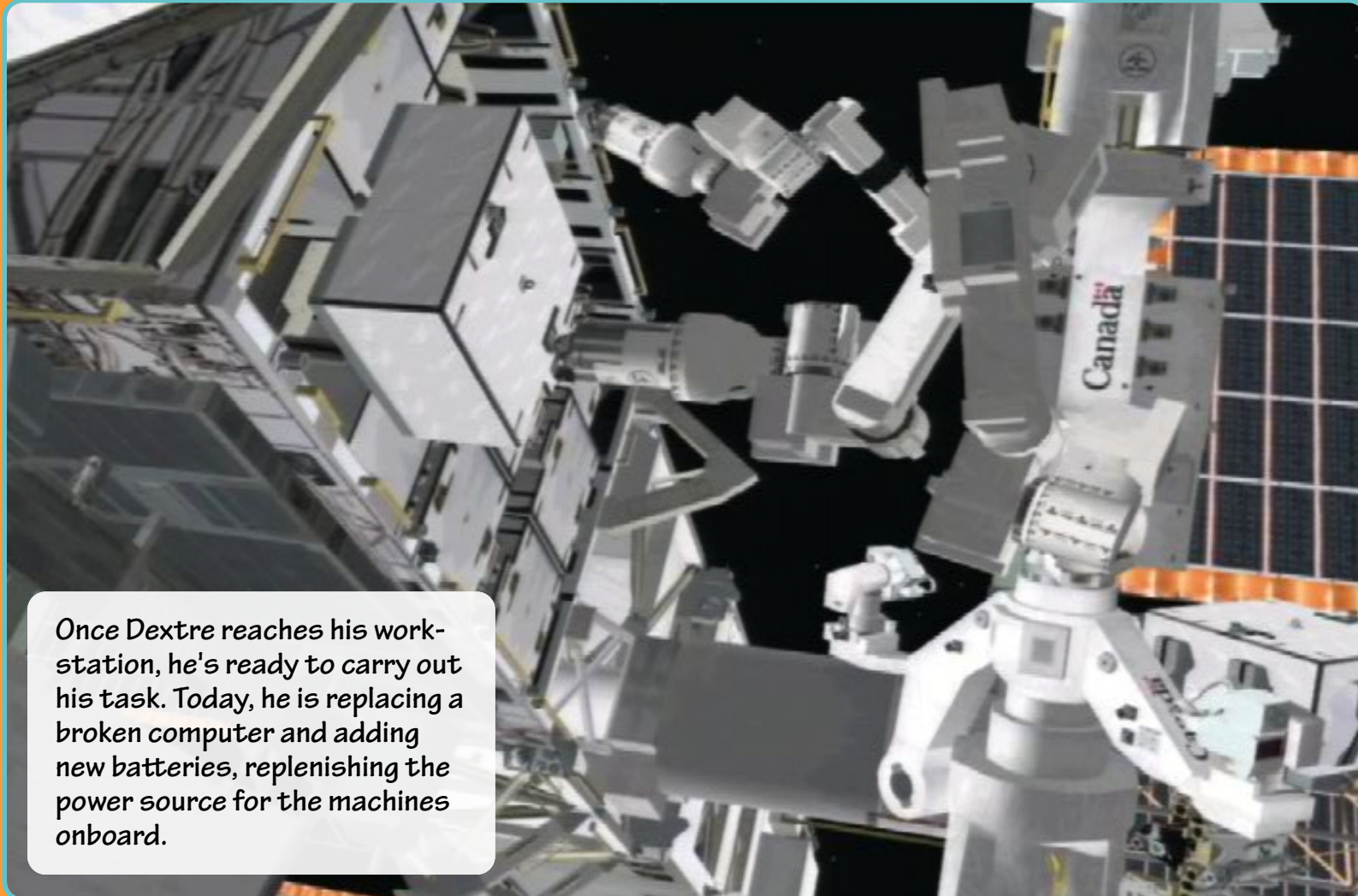
Dextre



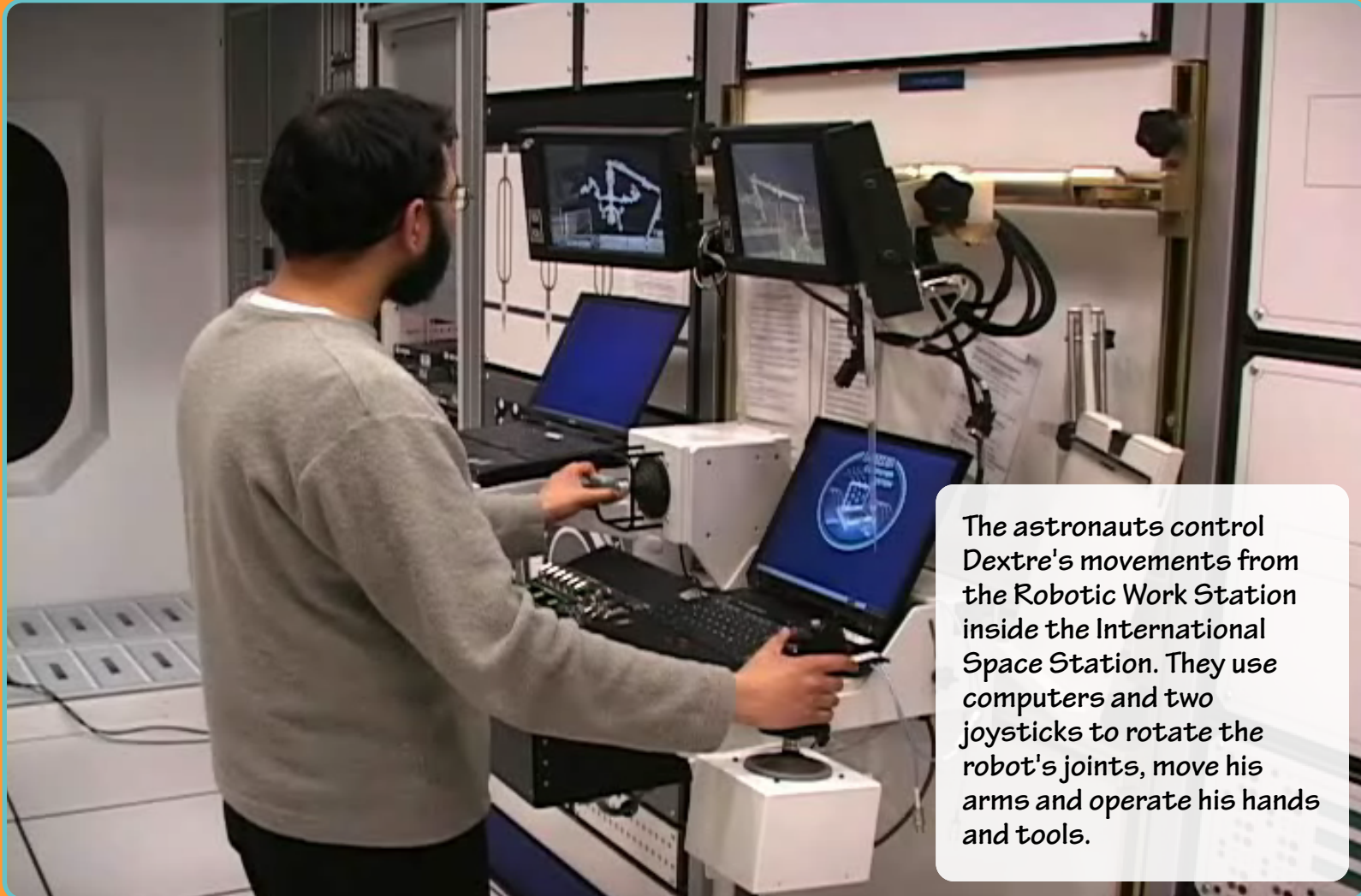
Dextre waits on the outside of the Space Station until he is needed to make repairs. Dextre rides on the end of a robotic arm called Canadarm2 that can help it reach 17 metres across the Station. That's like reaching from the blue line to the goal on a hockey rink.



Dextre

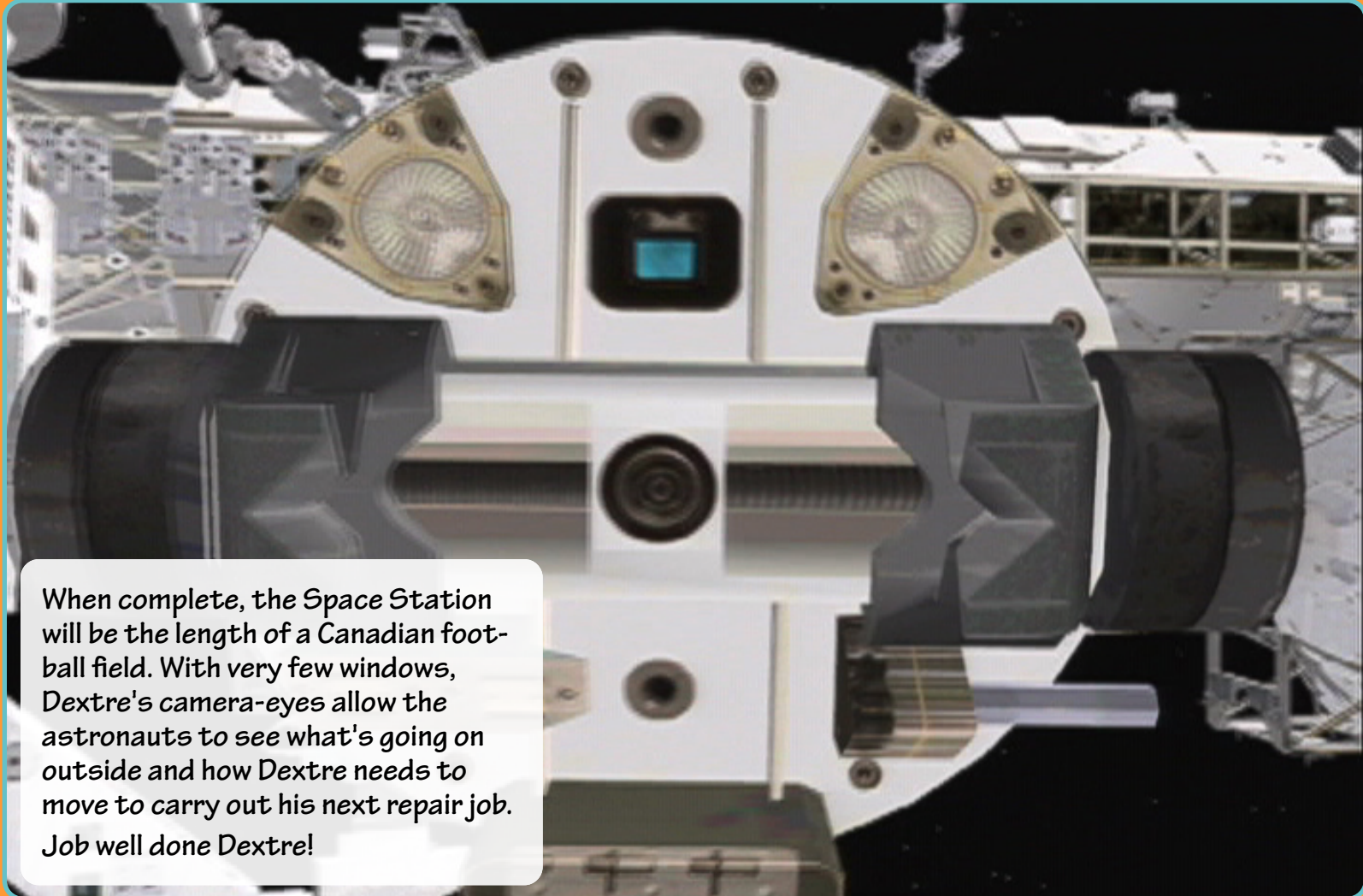


Once Dextre reaches his workstation, he's ready to carry out his task. Today, he is replacing a broken computer and adding new batteries, replenishing the power source for the machines onboard.



The astronauts control Dextre's movements from the Robotic Work Station inside the International Space Station. They use computers and two joysticks to rotate the robot's joints, move his arms and operate his hands and tools.

Dextre



When complete, the Space Station will be the length of a Canadian football field. With very few windows, Dextre's camera-eyes allow the astronauts to see what's going on outside and how Dextre needs to move to carry out his next repair job. Job well done Dextre!