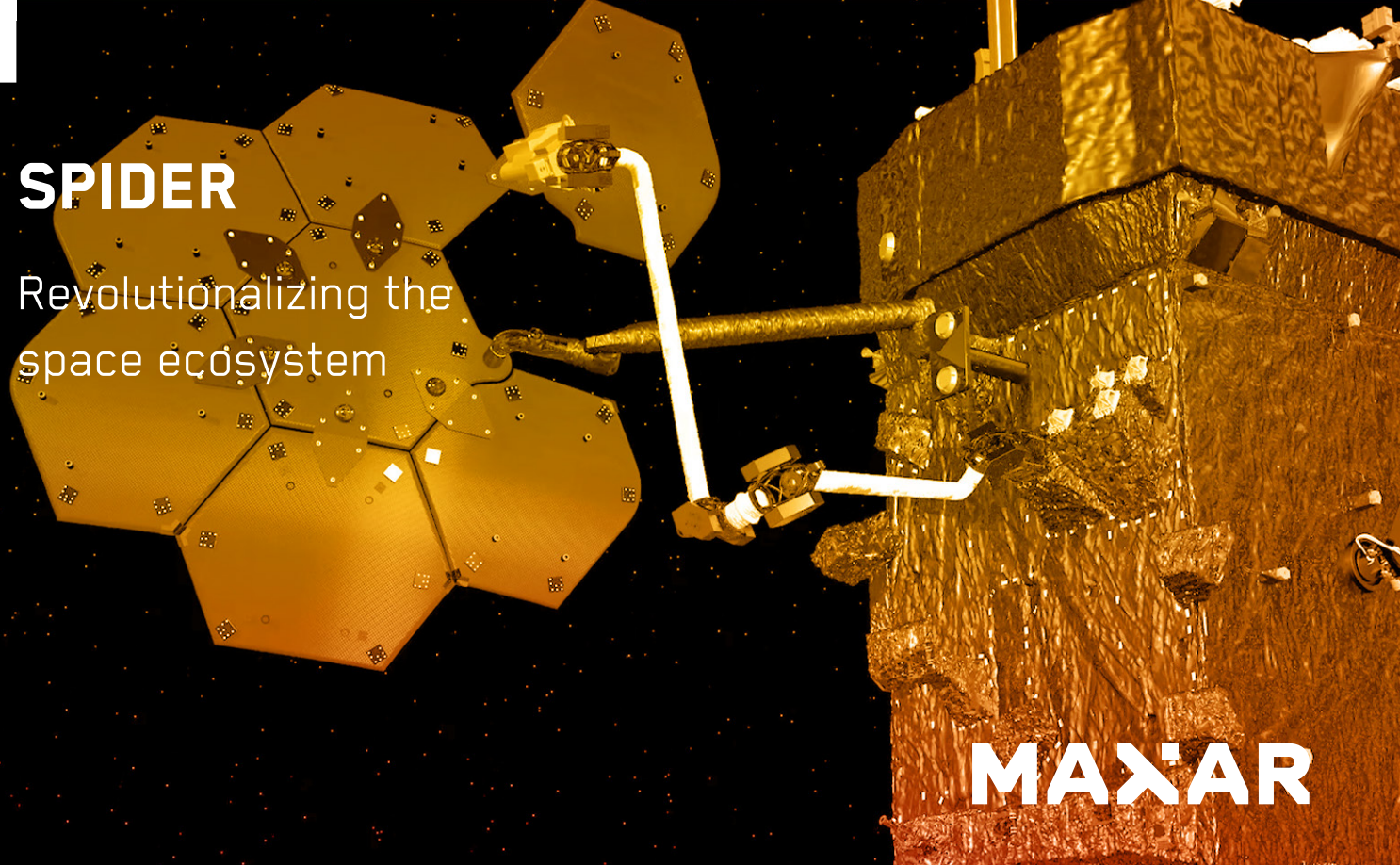




# SPIDER

Revolutionizing the space ecosystem



# MAXAR

## NASA AND MAXAR'S SPACE INFRASTRUCTURE DEXTEROUS ROBOT (SPIDER) PROGRAM FOR ON-ORBIT SATELLITE ASSEMBLY AND SERVICING

Maxar, in partnership with NASA and the West Virginia Robotics Technology Center, is developing advanced robotic arms that will semi-automatically assemble and reconfigure spacecraft components while on-orbit. This revolutionary process allows satellites, telescopes and other systems to use larger and more powerful components that might not fit into a standard rocket fairing when fully assembled.

### Self-assembly and on-orbit servicing

SPIDER will be an integral component of NASA's Restore-L program, a mission to refuel and relocate a government-owned satellite in low Earth orbit. SPIDER will assemble seven individual antenna reflector components to construct one, large antenna reflector.

### Maintenance for exploration and other persistent platforms

SPIDER will demonstrate robotic assembly and manufacturing — all critical functions for Gateway, Mars orbiting outposts, and other exploration outposts — to support preparation for and sustainment of human exploration.

## FACTS ABOUT SPIDER:

- Mid 2020s launch
- Lightweight, 7 degree-of-freedom, >5-meter-long dexterous robotic arm for in-space assembly
- Enables new spacecraft architectures and greater mission flexibility, adaptability, and resilience
- Key technology for space exploration
- Enables higher performance missions within current launch constraints

Transformative technologies such as SPIDER will, in time, lead to more affordable, safer human access to space and more efficient, longer-lasting satellites, probes and other space hardware.



Trudy Kortez, Technology Demonstration Missions Program Executive at NASA

# 60+

Years of  
experience

# 280+

Spacecraft  
built

# 2,200

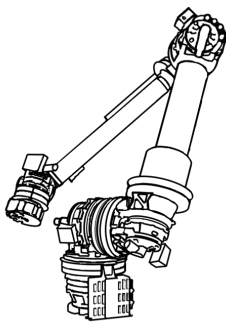
Collective years  
on orbit

Maxar is a trusted partner and innovator in Earth Intelligence and Space Infrastructure. We design, build, integrate and test solutions for space-based communications, Earth observation, exploration and on-orbit assembly and servicing.

Our renowned space infrastructure capabilities are rooted in the innovative legacy of SSL (Space Systems Loral). Now, as Maxar, we are building on this experience to empower commercial and government programs to advance space exploration and improve life on Earth.

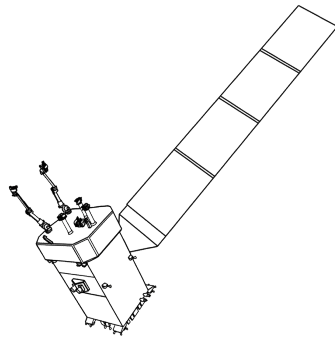
## Maxar and NASA

Our collaborative partnership with NASA dates back to the Apollo 11 Moon landing and continues to grow and evolve across the International Space Station and robotic exploration missions.



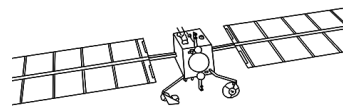
### Robotic Arms on Mars

Maxar is the proud space robotics arm partner for 6 of NASA's Mars landers and rovers.



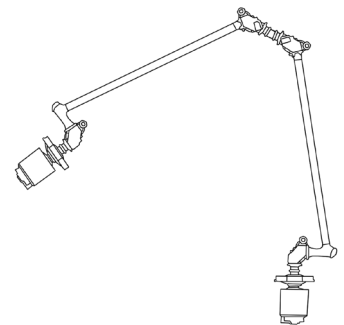
### Restore-L

Led by NASA and built by Maxar, Restore-L will refuel and relocate a government-owned satellite to extend its life.



### Power and Propulsion Element

The Power and Propulsion Element for Gateway will support sustained missions to the Moon and future crewed missions to Mars.



### SPIDER

These robotic arms enable semi-autonomous on-orbit assembly and service.