Space Launch System
America’s Flagship for Exploration

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Ships of exploration shouldn’t limit destinations, they should open opportunities.
How do humans thrive on a barren world?

Mars missions may last for years. Sustaining life will require innovation.
A human mission to Mars will need:

- Deep Space Habitation
- In-Space Propulsion
- In-Space Radiation Shielding
- Mars Descent Vehicle
- Entry Heat Shielding
- Surface Habitation
- Surface Radiation Shielding
- Surface Power Generation
- Surface In-Situ Resource Utilization
- Surface Space Suits
- Surface Transportation
- Mars Ascent Vehicle

Humans are a needy species.
NASA’s Space Launch System

Launching Soon. Building Today.

www.nasa.gov/sls #slsinspires
Proven success. Greater power.

Orion: Carries astronauts into deep space

Stage Adapters: The Orion stage adapter will be the first new SLS hardware to fly.

Interim Cryogenic Propulsion Stage: Based on the Delta IV Heavy upper stage; the power to leave Earth

Core Stage: Newly developed for SLS, the Core Stage towers more than 200 feet tall

Solid Rocket Boosters: Built on Space Shuttle hardware; more powerful for a new era of exploration

RS-25 Engines: Space Shuttle engines for the first four flights are already in inventory
Bigger Rocket = Unrivaled Mass, Unrivaled Volume

Enables missions no other rocket can perform.

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Greater power means greater versatility.

Game-changing benefits for robotic science missions of discovery.
Moving rapidly toward the launch pad

Space Launch System is currently designing, tooling, building & testing.
SLS’s first launch will send Orion beyond the moon into deep space.

First flight in December 2017
SLS is the first step in the journey to Mars.

Going to Mars will be difficult. SLS provides the power that it takes.
NASA and America’s future is built on science, technology, engineering and mathematics.

Today’s students will create tomorrow
Your future begins now.

Get a head start on a NASA career with our student opportunities today.
Man cannot discover new oceans unless he has the courage to lose sight of the shore.

Join us on the journey

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