

# NASA image: America's next rocket

July 7 2014

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Credit: NASA

NASA's Space Launch System, or SLS, will be the most powerful rocket in history. The flexible, evolvable design of this advanced, heavy-lift

launch vehicle will meet a variety of crew and cargo mission needs.

In addition to carrying the Orion spacecraft, SLS will transfer important cargo, equipment and science experiments to deep space, providing the nation with a safe, affordable and sustainable means to expand our reach in the [solar system](#). It will allow astronauts aboard Orion to explore multiple deep-space destinations including an asteroid and ultimately Mars.

The first configuration of the SLS launch vehicle will have a 70-metric-ton (77-ton) lift capacity and carry an uncrewed Orion spacecraft beyond low-Earth orbit to test the performance of the integrated system. As the SLS is evolved, it will be the most powerful rocket ever built and provide an unprecedented lift capability of 130 metric tons (143 tons) to enable missions even farther into our solar system.

Provided by NASA Image of the Day

Citation: NASA image: America's next rocket (2014, July 7) retrieved 23 June 2024 from <https://phys.org/news/2014-07-nasa-image-america-rocket.html>

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