

Lockheed Martin Completes Orion Development For Artemis II Mission To The Moon

Upgraded Spacecraft Delivered, Preparations for 2026 Launch Underway

DENVER, May 1, 2025 /PRNewswire/ -- Lockheed Martin [NYSE: LMT] has completed assembly and testing of NASA's [Orion](#) Artemis II spacecraft, transferring possession to NASA's Exploration Ground Systems (EGS) team today. This milestone is a significant step for NASA and the Artemis industry team, as they prepare to launch a crew of four astronauts to further the agency's mission in establishing a human presence on the Moon for exploration and scientific discovery. It will also help build the foundation for the first crewed missions to Mars.

Orion is the most advanced, human-rated, deep space spacecraft ever developed. Lockheed Martin is the prime contractor to NASA for Orion and built the crew module, crew module adaptor and launch abort system.

"This achievement is a testament to our employees and suppliers who have worked tirelessly to get us to this important milestone," said Kirk Shireman, vice president of Human Space Exploration and Orion program manager at Lockheed Martin. "The Orion spacecraft completion for Artemis II is a major step forward in our nation's efforts to develop a long-term lunar presence. It's exciting to think that soon, humans will see the Earth rise over the lunar horizon from our vehicle, while also traveling farther from Earth than ever before."

Upgraded for Crew Onboard

The uncrewed [EFT-1](#) and [Artemis I](#) test flights were the first steps in validating the spacecraft's core systems. Artemis II will put Orion through its final tests in deep space with a crew on board and will include learnings and significant enhancements gleaned from the Artemis I mission.

To support the health and safety of the crew, [new systems](#) have been added, which include life support – air, water, thermal control, waste management – displays and controls, audio communications, an exercise machine and a fully functional [Launch Abort System](#). Additionally, the vehicle is outfitted with a subset of docking sensors and an experimental laser communication system, enabling high data-rate communications and paving the way for future missions.

Path to Launch

With the completion of Orion, the EGS team will perform final preparations on the spacecraft, readying it for launch. Orion will soon be moved from the Neil Armstrong Operations and Checkout Building at NASA's Kennedy Space Center to various processing facilities. This is where EGS will load propellants and other consumables, such as water and oxygen, and install the launch abort system and its protective fairings. Upon completion, it will then be transported to the Vehicle Assembly Building, lifted onto the Space Launch System (SLS) rocket and undergo final preparations for launch.

Historic Artemis Flight

Scheduled to launch in early 2026, Artemis II and the Orion spacecraft will host NASA [astronauts](#) Reid Wiseman, Victor Glover, Christina Koch and Canadian astronaut Jeremy Hansen. Their 10-day journey will include flying 4,600 miles beyond the Moon and back to Earth.

During the mission, the crew will evaluate the spacecraft's performance, test its navigation and communication systems, and conduct a series of scientific experiments. They will perform a rendezvous operation with the SLS upper stage, practicing docking activities needed for future missions including Artemis III – which will mark the first human lunar landing since Apollo 17 in 1972.

With work on Orion for Artemis II completed, Lockheed Martin continues to develop and assemble Orion spacecraft for future Artemis missions. Artemis III and IV vehicles are in the Operations and Checkout Building, while the pressure vessel is being welded at NASA's Michoud Facility in New Orleans. Lockheed Martin is on [contract](#) to develop Orion spacecraft up to Artemis VIII and has decreased cost with each vehicle.

More information about Orion:

- Lockheed Martin Orion page: <https://www.lockheedmartin.com/orion>
- NASA Orion page: <https://www.nasa.gov/orion>
- NASA Artemis II page: <https://www.nasa.gov/mission/artemis-ii>

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