# Elon Musk plans to send humanoid robot Optimus to Mars aboard Starship



Elon Musk, the CEO of SpaceX and Tesla, has unveiled plans to deploy Tesla's humanoid robot, known as Optimus, aboard the Starship rocket for a mission to Mars, with a targeted launch date of late next year. Musk shared this ambitious announcement on his platform X, stating, "Starship launches late next year with Optimus on board to Mars."

The Starship rocket, which is set to embark on this historic journey, is noted for being the largest and most powerful rocket ever built, standing at an impressive 123 meters—approximately 30 meters taller than the Statue of Liberty. The rocket is designed as a fully reusable system aimed at facilitating interplanetary colonisation and reducing costs associated with space travel.

Musk's vision extends beyond the initial launch, as he suggests that if subsequent landings are successful, human missions to Mars could commence as soon as 2029, with 2031 being a more likely timeline. "If those landings go well, then human landings may start as soon as 2029," Musk stated. The deployment of Optimus serves as a pioneering step in this interplanetary exploration initiative.

However, the road ahead for SpaceX is not without its challenges. The Federal Aviation Administration (FAA) has initiated an investigation following a recent incident involving a failed test flight of the Starship prototype, which ended with the rocket tumbling uncontrollably and ultimately exploding. The FAA has mandated that SpaceX conduct its own investigation into the circumstances surrounding this incident.

The reliability and safety of the Starship are paramount, particularly as the company aims to accomplish both lunar and Martian missions. To progress, SpaceX must demonstrate that the spacecraft is safe for crewed missions and capable of conducting orbital refueling operations, which are critical for deep space exploration.

In parallel to its Mars ambitions, NASA is planning to utilise a modified version of Starship as a lunar landing module for the Artemis programme, which aims to return astronauts to the Moon within the decade. This collaboration underscores the significance of Starship in the broader context of space exploration.

Musk has long advocated for a future where humanity establishes a presence on other celestial bodies, stating, "Humanity should have a moon base, cities on Mars, and be out there among the stars." His aspirations for colonising Mars are closely intertwined with the advancements made by both SpaceX and Tesla.

The Optimus robot, which was first introduced by Tesla in 2022, showcases the company's push into advanced robotics. Musk unveiled prototypes of Optimus during an event in October 2022, where the robots were demonstrated serving drinks and engaging with guests, albeit under human remote control, showcasing the developmental stage of the technology. Once available, Optimus is expected to retail between $20,000 and $30,000.

The integration of Optimus into the Mars mission highlights the ongoing efforts of SpaceX and Tesla to push the boundaries of technology and exploration. As both companies continue to develop their respective technologies, the Starship spacecraft remains integral to their plans for Mars colonisation and the commercial satellite launch business. Despite the recent setbacks, Musk maintains a positive outlook on the timeline for possible human missions to Mars, reiterating, "Human landings could begin as early as 2029, although 2031 is more likely."

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://www.news18.com/world/elon-musk-announces-spacexs-mars-mission-2026-humans-by-2029-tesla-humanoid-robot-optimus-onboard-spacecraft-9262796.html> - This article supports Elon Musk's announcement of a Mars mission with Tesla's humanoid robot Optimus onboard, planned for late 2026, and the potential for human landings by 2029.
* <https://en.apa.az/ict/musk-announces-starship-spacecraft-mission-to-mars-with-humanoid-robot-463027> - This report corroborates Musk's plan to launch Starship with Optimus to Mars in late 2026 and the possibility of human missions starting as early as 2029.
* <https://www.news18.com/world/elon-musk-announces-spacexs-mars-mission-2026-humans-by-2029-tesla-humanoid-robot-optimus-onboard-spacecraft-9262796.html> - It also mentions the challenges SpaceX faces, including a recent failed test flight and the need for FAA approval before further launches.
* <https://www.nasa.gov/mission_pages/artemis/index.html> - This NASA webpage provides information on the Artemis program, which plans to use a modified Starship for lunar missions, highlighting the collaboration between NASA and SpaceX.
* <https://www.tesla.com/ai> - Tesla's AI page discusses the development of Optimus, the humanoid robot, which is part of Tesla's push into advanced robotics.