

# Humanoid robot optimus

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**In news**—Tesla CEO Elon Musk has revealed the much-touted humanoid robot 'Optimus', after announcing about it in 2021.

## What are humanoid robots?

- A humanoid robot is a **robot resembling the human body in shape**.
- The design may be for functional purposes, such as interacting with human tools and environments, for experimental purposes, such as the study of bipedal locomotion, or for other purposes.
- In general, humanoid robots have a torso, a head, two arms, and two legs.
- **There are several companies that have already developed the most advanced humanoid robots such as Sophia, Destiny, Erica, Junko Chihira and Nadine.**

## The Optimus-

According to Elon Musk, initially, Optimus, **an allusion to the powerful and benevolent leader of the Autobots in the Transformers media franchise, would perform boring or dangerous jobs, including moving parts around Tesla factories** or attaching a bolt to a car with a wrench.

## Sophia-

- It is a social humanoid robot **developed by the Hong Kong-based company Hanson Robotics**.
- Sophia was activated on February 14, 2016, and made her first public appearance in mid-March 2016 at South by Southwest in Austin, Texas, United States.
- **She is the world's first robot citizen** and the first robot Innovation Ambassador for the United Nations Development Programme.

## Vyoma Mitra-

- Vyommitra is a **female-looking spacefaring humanoid robot being developed by the Indian Space Research Organisation(ISRO)** to function on-board the Gaganyaan, a crewed orbital spacecraft.
- Vyommitra was first unveiled on 22 January 2020 at the *Human Spaceflight and Exploration symposium* in Bengaluru.
- It will accompany Indian astronauts in space missions and will also be a part of uncrewed experimental Gaganyaan missions prior to the crewed spaceflight missions.