

# Artemis: Mission to the Moon and beyond

The *Artemis* programme will see NASA join forces with commercial spaceflight companies and international partners to try to land the first woman and next man on the lunar surface by 2024 – tentative steps in a long-term goal of sending astronauts to Mars

## GATEWAY SPACEPORT – Lunar orbital platform

**Power and propulsion:**  
Attitude and orbit control,  
and communications

**First stage to launch: 2022**

**Completion  
of station:  
2028**

**Logistics and  
utilisation:** Cargo  
deliveries of food and  
equipment. Can double  
as additional habitation

**Robotic  
arm:** Can  
berth and  
inspect  
vehicles  
or install  
payloads

**Number  
of launches  
of NASA and  
private rockets  
to complete  
Gateway:**

**37**

**Airlock:** Enables  
spacewalks and  
offers potential  
to accommodate  
additional dockings

**Orion:** Crew and  
service module –  
can transport **four  
humans** further into  
deep space than  
ever before  
**First manned  
flight: 2022**

**July 20, 1969:  
Apollo 11 lands  
man on Moon**

**Astronaut  
to scale**

**Habitation modules:**  
Pressurised volumes  
featuring life support,  
fire detection and  
suppression, water  
storage and  
distribution

**Esprit:**  
Airlock with  
additional fuel  
storage and  
advanced lunar  
telecommunications

**Utilisation:**  
Pressurised  
volume with  
additional  
habitation  
capability

**Sample return  
vehicle:** Robotic  
lander capable  
of delivering  
payloads from  
Moon to Gateway

**SLS launcher:**  
Configured for  
Orion capsule

**110.6m**

**98.2m**

### POSITION OF PLATFORM

— Moon orbits Earth every 27  
days and is on average  
**384,400km**  
away

**EARTH**  
**MOON**  
**1,500km**

### Near- rectilinear halo orbit:

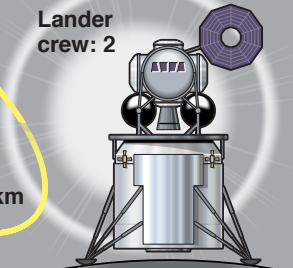
Gateway takes  
**six days** to orbit  
Moon – staying out  
of its shadow and keeping  
crew in constant communication  
with Earth. Ideal staging point for  
lunar surface and deep space locations

**Distance  
from Moon**  
**70,000km**

### EXPLORATION HUB

From Gateway, vehicles  
can embark to multiple  
destinations, such as  
Moon, Mars and beyond

**Lander  
crew: 2**



**Manned  
Moon landing: 2024**

In Greek  
mythology,  
**Artemis** was  
daughter of  
Zeus, goddess  
of Moon and,  
aptly, twin  
sister of  
**Apollo**