

Mangalyaan: India's maiden mission to Mars

Mangalyaan, also known as Mars Orbiter Mission (MOM), is India's first interplanetary expedition, designed to study the red planet and serve as a technology demonstrator for future missions

MISSION TIMELINE

1 Following launch, spacecraft circles Earth for four weeks, firing its engines six times to gradually boost its orbit

Orbital period:
3.2 days

3 Enters Mars orbit for 160-day mission

2 Seventh engine burn puts craft on trajectory for Mars. Voyage takes 300 days

MANGALYAAN SPACECRAFT

Solar panels

Fuel tank

Medium-gain antenna

High-gain antenna

PSLV-XL
(Polar Satellite Launch Vehicle-XL)
Height: 44.5m



Science instruments

- ▶ Lyman Alpha Photometer (LAP)
- ▶ Thermal Infrared Imaging Spectrometer (TIS)
- ▶ Mars Colour Camera (MCC)
- ▶ Methane Sensor for Mars (MSM)
- ▶ Martian Exospheric Neutral Composition Analyzer (MENCA)

Mission cost:
4.5bn rupees
(\$70m)