

Japan's lunar probe approaches launch

After four years of delay, Japan's space agency is preparing to launch its **SELENE** (*SELenological and ENgineering Explorer*) spacecraft. Hailed as the most ambitious project since the U.S. Apollo programme, the probe will study the moon to understand its origins and aid future exploration

SPACECRAFT COMPONENTS

Main orbiter: Contains propulsion and most of science instruments

VRAD satellite
Observes lunar gravity field

Relay satellite
Relays data to Earth when main orbiter is on far side of moon

High-gain antenna

Solar array paddle

Radar sounder antenna

Magnetometer mast

MISSION

1 Launch: Probe carried by Japanese H-2A rocket

2 Lunar orbit insertion
After five-day flight

3 Relay satellite release
Elliptical orbit to 24,000km

4 VRAD satellite release
Elliptical orbit to 800km

5 Main orbit: One-year mission at 100km altitude

