

Drone to fly on Saturn's moon

NASA is sending a dual-quadcopter drone to explore the surface of Titan, Saturn's largest moon. Named Dragonfly, the mission will search for hints of life on a world similar to primordial Earth

TITAN: Only other world in solar system with standing liquid (methane) on surface, giving opportunity to explore chemical processes that could have sparked life on Earth

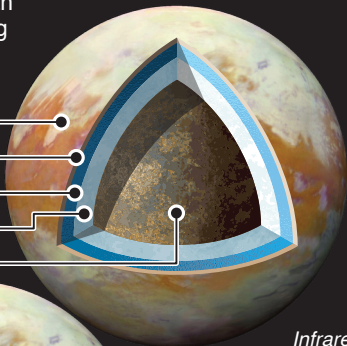
Organic-rich atmosphere and surface

Outer shell (water-ice / clathrate)

Subsurface water ocean

High-pressure ice shell

Hydrous silicate core



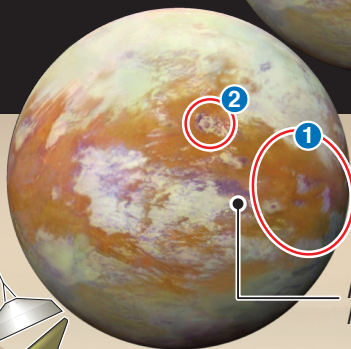
Infrared image of Titan

MISSION

Dragonfly will land at **Shangri-La** dune fields (1) before reaching **Selk** crater (2), where liquid water and organic materials vital for life once existed together

Multi-Mission Radioisotope Thermoelectric Generator (MMRTG)

Converts heat released by decay of radioactive material into electricity to power craft



Dragonfly will also study composition of Titan using gamma ray neutron spectrometer

Huygens probe landing site (2005)

High-gain antenna (HGA)

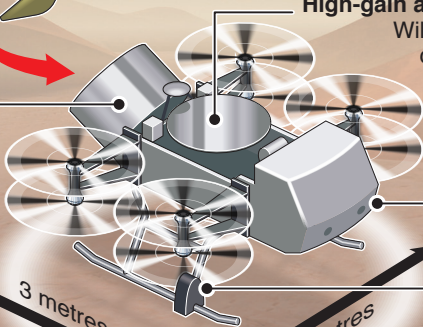
Will provide direct communication to Earth

Cameras

Images streamed to offer bird's-eye view of Titan

Drills

Will collect samples for analysis by mass spectrometer



3 metres

3 metres