

Insight mission

April 23, 2020

Context: NASA published a set of six papers regarding the results from Insight Mission to Mars

- This mission is part of NASA's Discovery Program for highly focused science missions that ask critical questions in solar system science.
- InSight, (Interior Exploration using Seismic Investigations, Geodesy and Heat Transport), is a Mars lander.
- It is the first outer space robotic explorer to study in-depth the "inner space" of Mars: its crust, mantle, and core.
- Among its science tools are a seismometer for detecting quakes, sensors for gauging wind and air pressure, a magnetometer, and a heat flow probe designed to take the planet's temperature.
- Studying Mars' interior structure answers key questions about the early formation of rocky planets in our inner solar system – Mercury, Venus, Earth, and Mars – more than 4 billion years ago, as well as rocky exoplanets.

Outcomes

- NASA's InSight lander touched down Mars on November 26, 2018.
- Mars trembles more often than expected, but also more mildly.
- Mars doesn't have tectonic plates like Earth, but it does have volcanically active regions that can cause rumbles.
- Billions of years ago, Mars had a magnetic field. Although it is no longer present, it left behind what NASA describes as "ghosts" – magnetised rocks