NASA's Upcoming Mission is Psyche will be Sent to a Massive Metallic Asteroid

NASA's Psyche spacecraft is all set to launch on October 12 to explore a huge and unique metallic asteroid named Psyche which might be an exposed core.



Washington, D.C, District of Columbia Oct 13, 2023 (Issuewire.com) - NASA is all set for its newest mission and the Psyche spacecraft is scheduled to be launched on October 12th from the Kennedy Space Center in Florida. This is a collaboration with Elon Musk's company SpaceX as the spacecraft will be launched riding on the top of a SpaceX Falcon Heavy rocket. This mission is a part of NASA's new Discovery program, an initiative to explore the solar system with low-cost and competitive missions. This Psyche mission will be led by the Arizona State University along with NASA's Jet Propulsion Laboratory who will be managing the mission. The spacecraft will be equipped with a set of instruments that will be used in studying Psyche's gravity, geology, magnetic field, and the asteroid's composition.

The asteroid named Psyche is a unique metallic object orbiting the Sun between Jupiter and Mars. The width of the object is around 173 miles or 279 kilometers which is thought to be an exposed core of a planet that was never fully formed. In this mission, the rocket that will be used is a SpaceX Falcon Heavy rocket which is said to be the most powerful operational rocket in the world. The spacecraft will take around six years to reach the asteroid and will fly by Mars for an additional gravity assist. This will boost the spacecraft's speed while changing its trajectory. At the same time, Psyche, the spacecraft will also perform various "deep-space maneuvers" to save fuel and adjust its core. The spacecraft is expected to reach the asteroid in 2029 and upon reaching, it will orbit Psyche for 26 months.

This mission by NASA has four primary objectives and scientific goals which start with understanding the iron cores which are expected to be the unexplored building blocks of the formation of a planet. At the same time, it will also explore a new type of world which is made of metal and not rock and ice. It will also determine whether Psyche is truly a core or just an unmelted material while looking inside terrestrial planets by directly inspecting the interior of a body that is differentiated.

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