

Credit: NASA/Johns Hopkins APL/Mike Yakovlev

DART, NASA's Double Asteroid Redirection Test, is the world's first planetary defense test mission. After a successful launch from Vandenberg Space Force Base on November 23, 2021, DART is heading for the small moonlet asteroid Dimorphos, which orbits a larger companion asteroid called Didymos, with plans to intentionally crash into the asteroid to slightly change its orbit. While neither asteroid poses a threat to Earth, DART's kinetic impact will prove that a spacecraft can autonomously navigate to a target asteroid and intentionally collide with it. Then, using Earth-based telescopes to measure the effects of the impact on the asteroid system, the mission will enhance modeling and predictive capabilities to help us better prepare for an actual asteroid threat should one ever be discovered.

APL manages the DART mission for NASA's Planetary Defense Coordination Office as a project of the agency's Planetary Missions Program Office. NASA provides support for the mission from several centers, including the Jet Propulsion Laboratory in Southern California, Goddard Space Flight Center in Greenbelt, Maryland, Johnson Space Center in Houston, Glenn Research Center in Cleveland, and Langley Research Center in Hampton, Virginia.