

DART:

THE FIRST PLANETARY DEFENSE TEST MISSION

The Double Asteroid Redirection Test (DART) mission is a technology demonstration designed to test the kinetic impactor technique to deflect an asteroid.

DART's power generation and navigation are enabled by Redwire technologies: Roll-Out Solar Array (ROSA), Digital Sun Sensors, and an electronics processing unit. This technology has powered and guided DART for ~7 million miles over 10 months to its destination.



Digital Sun Sensor System

- Five Redwire Digital Sun Sensor ($\pm 64^\circ$) heads and one electronics processing unit keep DART on course.
- Digital Sun Sensors are used for attitude control and fail-safe recovery.
- Electronics processing unit assists in processing information from the sun sensors for the onboard computer and SMART Nav system.

Roll-Out Solar Array

- Redwire's Roll-Out Solar Array (ROSA) onboard DART power the entire spacecraft, providing more than 6.5 kw of power.
- Each wing is 28 feet fully deployed.
- The array features Redwire's Flexible Array Concentrator Technology (FACT) Solar Power Modules, which use high efficiency solar cells, as a Transformational Solar Array demonstration.