National Aeronautics and Space Administration

Nancy Grace Roman Space Telescope

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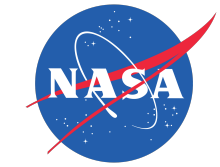

Nancy Grace Roman Space Telescope

The Nancy Grace Roman Space Telescope is the top-ranked large space mission from the Astro2010 Decadal Survey. It is a NASA observatory designed to settle essential questions in the areas of dark energy, exoplanets, and infrared astrophysics. Using a Wide Field Instrument, the Roman Space Telescope will perform precision measurements to probe the dark energy equation of state, test the validity of General Relativity, and make an order of magnitude step forward in dark energy studies. Discovering the statistics of exoplanets via microlensing is crucial for understanding the prevalence and formation of Earth-size planets. Imaging of planetary disks and planets with a Coronagraph technology demonstration instrument will give direct observations of individual solar systems that are near neighbors to our Sun. Roman Space Telescope will conduct large-area infrared imaging and spectroscopic surveys over multiple epochs to enable scientific investigations that touch upon virtually every class of astronomical object, environment and distance. While the baseline mission emphasizes the exoplanet and dark energy measurements, the additional surveys carried out via the General Observer program can exploit the telescope's unique capabilities to substantially broaden the science return of the mission. It will have a 2.4 m primary mirror, the same size as the Hubble Space Telescope primary mirror, but will have one-hundred times the field of view. Goddard Space Flight Center in Greenbelt, MD manages the Roman Project and Wide Field Instrument. The Jet Propulsion Laboratory in Pasadena, CA manages the Telescope and Coronagraph.

For more information, please visit
https://roman.gsfc.nasa.gov

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