

The James Webb Space Telescope  
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Abstract:

The James Webb Space Telescope is the scientific successor to the Hubble and Spitzer Space Telescopes. It will be a large (6.6m) cold (50K) telescope launched into orbit around the second Earth-Sun Lagrange point. It is a partnership of NASA with the European and Canadian Space Agencies. The science goals for JWST include the formation of the first stars and galaxies in the early universe; the chemical, morphological and dynamical buildup of galaxies, the formation of stars and planetary systems and understanding our Solar System. Webb has four instruments: The Near-Infrared Camera, the Near-Infrared multi-object Spectrograph, and the Near-Infrared Imager and Slitless Spectrograph will cover the wavelength range 0.6 to 5 microns, while the Mid-Infrared Instrument will do both imaging and spectroscopy from 5 to 28.5 microns. The observatory is confirmed for launch in 2018; the design is complete and it is in its construction and test phase. Recent progress includes the assembly of the primary mirror and cryogenic testing of the flight instruments.