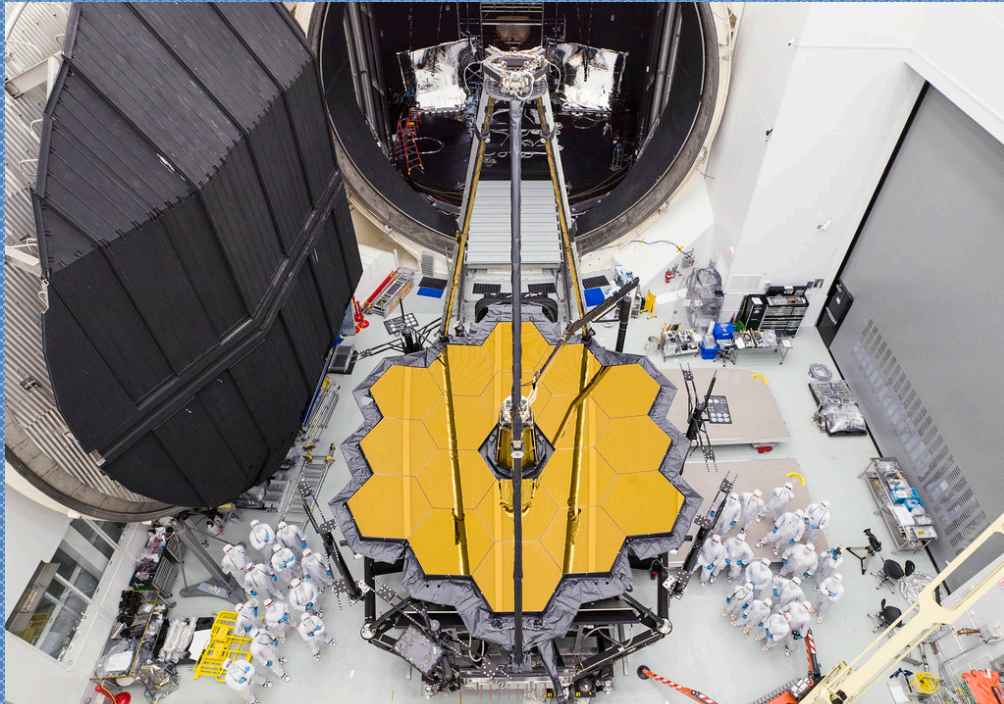


The James Webb Space Telescope (JWST)



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CREDIT: NASA

The JWST optical system fully unfolded at Johnson Space Center. The primary mirror is 6.5 meters wide, made of 18 hexagonal segments. The secondary is supported by three foldable, 7.6m long struts.

JWST is the most ambitious and powerful space telescope ever built. It will fundamentally change our knowledge of the Universe. A joint NASA-ESA-CSA collaboration, it will be launched in 2021 on an Ariane 5 rocket to its operations orbit at L2.

Its scientific payload consists of four instruments: a multi-object and integral field near infrared spectrometer (NIRSpec), two wide-field near infrared cameras, NIRCам and NIRISS, the latter with slit-less spectroscopy capabilities, and an imager, coronagraph and spectrograph for the mid-infrared wavelengths (MIRI).

The main science goals of Webb are the study of the first stars and galaxies ever formed in the Universe, understanding how galaxies assemble over billions of years, the birth of stars and planetary systems, the study of atmospheres of exoplanets, and the search for the building blocks of life.

CAB scientists from both CSIC and INTA have led the Spanish contribution to NIRSpec and MIRI for 20 years. CAB is one of the only four institutions in the world that participates in two JWST instruments simultaneously, with access to more than 1000 hours of guaranteed and early release science time. CAB scientist will access and exploit the first science data ever taken with JWST.

ESA JWST HOME PAGE [\(LINK\)](#)