

# NASA's Webb Telescope components meet 'Big Red'

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Credit: NASA

(Phys.org)—"Big Red" isn't a golden retriever or a NASA engineer, it's the nickname for a small chamber that helps ensure equipment can withstand very cold temperatures that would be experienced in space.

This photo shows engineers in a clean room at NASA's Goddard Space

Flight Center in Greenbelt, Md., placing the MCA (monitor and calibration assembly) into Big Red. In the photo, the MCA is the object under the silver-colored blanketing in Big Red.

The MCA is a key piece of the larger Optical Telescope Element (OTE) Simulator or OSIM. The OSIM simulates the [James Webb Space Telescope](#)'s optics for the purposes of testing the science instruments that will fly on the observatory. The OSIM itself will never fly into space, but it is a vital part of the testing program to verify that the [science cameras](#) and spectrographs will function as planned. The actual [telescope optics](#) assembly, known as the Optical Telescope Element or OTE, is the eye of the Webb [telescope observatory](#). The OTE will gather the light coming from space and provide it to the Webb's science instruments. Webb needs a large mirror to collect as much light as possible to see galaxies from the beginning of the universe and to detect other faint astronomical sources.

**More information:** For more information about NASA's James Webb Space Telescope, visit: [www.jwst.nasa.gov](http://www.jwst.nasa.gov)

Provided by NASA

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