

The mast is raised for NASA's Mars 2020 rover

June 14 2019



Members of NASA's Mars 2020 project take a moment after attaching the remote sensing mast to the Mars 2020 rover. The image was taken on June 5, 2019, in the Spacecraft Assembly Facility's High Bay 1 clean room at NASA's Jet Propulsion Laboratory in Pasadena, California. Credit: NASA/JPL-Caltech

In this image, taken on June 5, 2019, engineers at NASA's Jet Propulsion



Laboratory in Pasadena, California, take a moment after attaching the remote sensing mast to the Mars 2020 rover in the Spacecraft Assembly Facility's High Bay 1 clean room. Full integration of the mast—a process that includes installation of science instrument sensors, electrical wiring and checkout—continued into the following week, concluding on June 11.

During Mars 2020's launch, interplanetary cruise, and its fast and fiery descent toward the Martian surface, the mast will be in stowed flat on the rover's deck. Soon after touchdown, the mast (which tops out at over 7 feet, or 2.2 meters) will be raised to provide a high perch for the SuperCam, Mastcam-Z and Mars Environmental Dynamics Analyzerinstruments as well as four Navcam engineering cameras.

Mars 2020 will launch from Cape Canaveral Air Force Station in Florida in July of 2020. It will land at Jezero Crater on Feb. 18, 2021.

In a mission first, the rover carries a sample-caching system that will collect Martian rock and <u>soil samples</u> and store them on the planet's surface for retrieval and return to Earth by subsequent missions. Mars 2020 will also be the first spacecraft in the history of planetary exploration with the ability to accurately retarget its point of touchdown during the landing sequence—technology that could prove essential to future crewed missions to the Moon and Mars.

Charged with returning astronauts to the Moon by 2024, NASA's Artemis lunar exploration plans will establish a sustained human presence on and around the Moon by 2028. We will use what we learn on the Moon to prepare to send astronauts to Mars.





Engineers and technicians at NASA's Jet Propulsion Laboratory in Pasadena, California, install the remote sensing mast on the Mars 2020 rover. The image was taken on June 5, 2019, in the Spacecraft Assembly Facility's High Bay 1 clean room at JPL. Credit: NASA/JPL-Caltech

JPL is building and will manage operations of the Mars 2020 rover for the NASA Science Mission Directorate at the agency's headquarters in Washington.

If you want to send your name to Mars with NASA's 2020 mission, you can do so until Sept. 30, 2019. Add your name to the list and obtain a souvenir boarding pass to Mars here: <u>go.nasa.gov/Mars2020Pass</u>



Provided by Jet Propulsion Laboratory

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