

China launches 3 astronauts to complete space station

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In this photo released by Xinhua News Agency, the manned spaceship Shenzhou-15, atop the Long March-2F Y15 carrier rocket, blasts off from the Jiuquan Satellite Launch Center in northwestern China on Tuesday, Nov. 29, 2022. China launched the rocket Tuesday carrying three astronauts to complete construction of the country's permanent orbiting space station. Credit: Li Gang/Xinhua via AP

China launched a rocket Tuesday carrying three astronauts to complete construction of the country's permanent orbiting space station, during which they will expand the facility to its maximum capacity of six crew aboard.

The crew of the Shenzhou-15 will overlap for several days with the existing 3-member crew of the Tiangong [station](#), who will then return to Earth after their six-month mission.

Their spaceship blasted off atop a Long March-2F carrier rocket from the Jiuquan Satellite Launch Center on the edge of the Gobi Desert at 11:08 p.m. Tuesday.

The six-month mission, commanded by Fei Junlong and crewed by Deng Qingming and Zhang Lu, will be the last in the station's construction phase, according to the China Manned Space Agency.

Fei, 57, is a veteran of the 2005 four-day Shenzhou-6 mission, the second time China sent a human into [space](#). Deng and Zhang are making their first space flights.

The station's third and final module docked with the station earlier this month, one of the last steps in China's more than decade-long effort to maintain a constant crewed presence in orbit.

After the Shenzhou-15 spaceship makes an automated docking with the Tianhe core living and control module's front port, the station will be expanded to its maximum size, with three modules and three spacecraft attached for a total mass of nearly 100 tons.



In this photo released by Xinhua News Agency, the light trail of the launched manned spaceship Shenzhou-15, atop the Long March-2F Y15 carrier rocket after it blasted off from the Jiuquan Satellite Launch Center in northwestern China on Tuesday, Nov. 29, 2022. China launched the rocket Tuesday carrying three astronauts to complete construction of the country's permanent orbiting space station. Credit: Ren Junchuan/Xinhua via AP

Tiangong has room to accommodate six astronauts at a time and the handover will take about a week. That would mark the station's first in-orbit crew rotation.

Previous missions to the space station have taken about 13 hours from liftoff to docking.

China has not yet said what further work is needed to complete the station. Next year, it plans to launch the Xuntian space telescope, which, while not part of Tiangong, will orbit in sequence with the station and can dock occasionally with it for maintenance.

Without the attached spacecraft, the Chinese station weighs about 66 tons—a fraction of the International Space Station, which launched its first module in 1998 and weighs around 465 tons.

With a lifespan of 10 to 15 years, Tiangong could one day be the only [space station](#) still up and running if the International Space Station retires in the coming years as planned.

While China's crewed [space program](#) is officially three decades old this year, it truly got underway in 2003, when China became only the third country after the U.S. and Russia to put a human into space using its own resources.



In this photo released by Xinhua News Agency, from right, Chinese astronauts Fei Junlong, Deng Qingming and Zhang Lu wave as they attend a send-off ceremony ahead of the Shenzhou-15 manned space mission at the Jiuquan Satellite Launch Center in northwest China on Tuesday, Nov. 29, 2022. China launched the rocket Tuesday carrying three astronauts to complete construction of the country's permanent orbiting space station. Credit: Liu Lei/Xinhua via AP

The program is run by the ruling Communist Party's military wing, the People's Liberation Army, and has proceeded almost entirely without outside support. The U.S. excluded China from the International Space Station because of its program's military ties, although China has engaged in limited cooperation with other nations' space agencies.

China has also chalked up successes with uncrewed missions, with its

Yutu 2 rover the first to explore the little-known far side of the moon.

China's Chang'e 5 probe also returned lunar rocks to Earth for the first time since the 1970s in December 2020, and another Chinese rover is searching for evidence of life on Mars.

Officials are reporting considering an eventual crewed mission to the moon, although no timeline has been offered, even as NASA presses ahead with its Artemis lunar exploration program that aims to send four astronauts around the moon in 2024 and land humans there as early as 2025.

While proceeding smoothly for the most part, China's space program has also drawn controversy. Beijing brushed off complaints that it has allowed rocket stages to fall to Earth uncontrolled after NASA accused it of "failing to meet responsible standards regarding their space debris." In that case, parts of a Chinese rocket landed in the Indian Ocean.

China is also reportedly developing a highly secret space plane and its increasing space capabilities feature in the latest Pentagon defense strategy, which said the program was a component of China's "holistic approach to joint warfare."

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