



China's Shenzhou-12 Manned Mission

Why in News

Recently, a Chinese spaceship "**Shenzhou-12**" carrying a **three-person crew** docked with China's new **space station** module **Tianhe-1**.

- This has come after the launch of the **Tianzhou-2 cargo spacecraft**, which carried vital supplies for the space station.

Key Points

▪ About Mission:

- The **Shenzhou-12 craft** connected with the [Tianhe space station module](#) about six hours after takeoff from the **Jiuquan launch center in Gobi Desert**.
- The **three-man crew** will spend **three months on the Tianhe module**, which is orbiting at some **340km to 380km** above the earth.
 - China is the **third country after** the former **Soviet Union** and the **United States** to carry out a **manned mission** on its own.
- This is the **first of two manned space missions** planned for this year, part of an intense schedule of launches aimed at completing the **Chinese space station in 2022**.
 - At least **five more missions** are planned for the year, with the **Shenzhou-13** manned mission, also carrying three astronauts, set for later this year.
- The three astronauts are the first to take up residency in the main living module and **will carry out** experiments, test equipment, conduct maintenance and prepare the station for receiving two laboratory modules next year.
- It was **China's seventh crewed mission to space** but marked **a number of firsts for the country** - the first manned one during the construction of China's space station, the first in nearly five years after the country's **last manned mission in 2016** and China's **longest crewed space mission** to date.

▪ Purpose of the Mission:

- It will help test technologies related to **long-term astronaut-stays** and health care, the recycling and life support system, the supply of space materials, extravehicular activities and operations, and in-orbit maintenance.

▪ China's Space Station:

- China is **not a participant in the [International Space Station \(ISS\)](#)**, largely as a result of US objections to the Chinese program's secrecy and close military ties.
 - The ISS is a joint project between **five participating space agencies: NASA** (United States), **Roscosmos** (Russia), **JAXA** (Japan), **ESA** (Europe), and **CSA** (Canada).
- However, **China has been stepping up cooperation with Russia and a host of other countries**, and **its station may continue operating beyond the ISS**, which is **reaching the end of its functional life**.

▪ Other Recent Space Missions of China:

◦ China's Mars Probe:

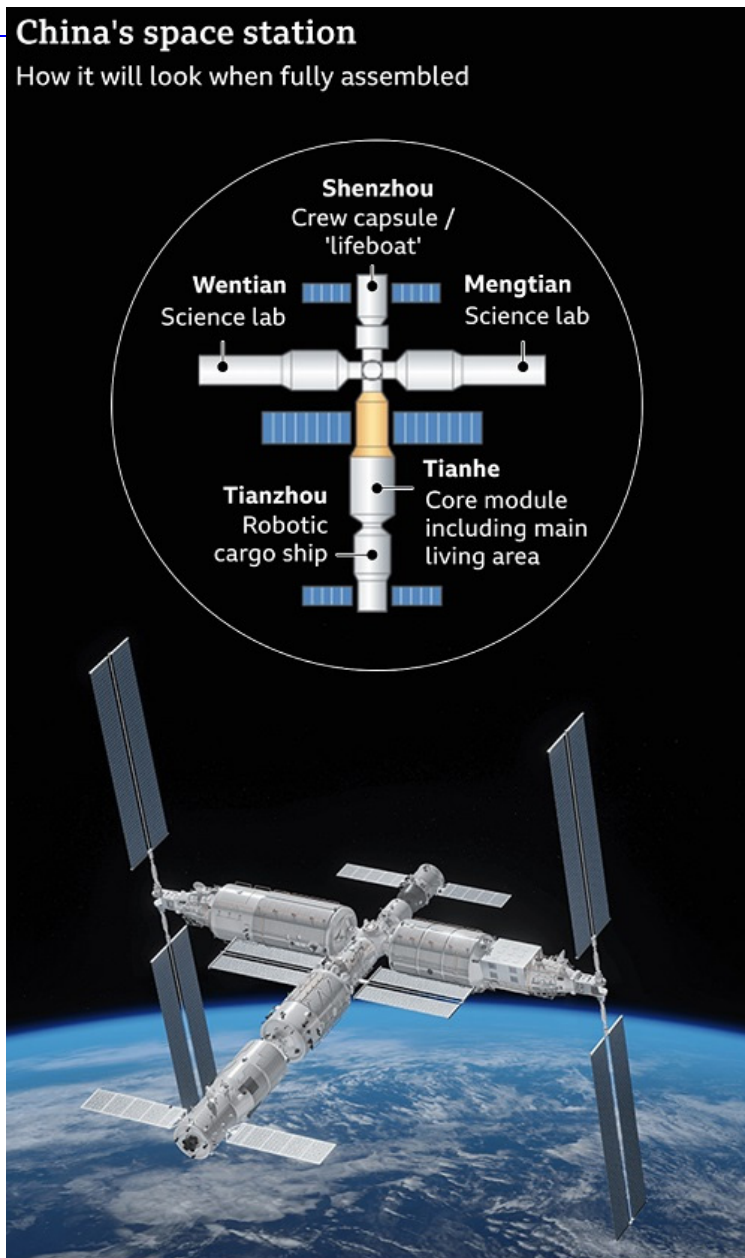
- In May 2021 [China's Tianwen spacecraft](#) landed on Mars carrying a **rover, the Zhurong**.
 - It will conduct scientific investigations into the planet's soil, geological structure, environment, atmosphere and water.

◦ China's Moon Probe:

- In November 2020, [Chang'e-5 mission](#) landed on the moon's less explored far side and brought back the first lunar samples by any country's space program since the 1970s.
- **China and Russia** have also unveiled an ambitious plan for a joint [International Lunar Research Station](#) running through 2036. That could compete and possibly conflict with the [Multinational Artemis Accords \(MAA\)](#).
 - MAA is a blueprint for space cooperation that supports NASA's plans to return humans to the moon by 2024 and to launch an historic human mission to Mars.

// China's space station

How it will look when fully assembled



Source: TH

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