



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:

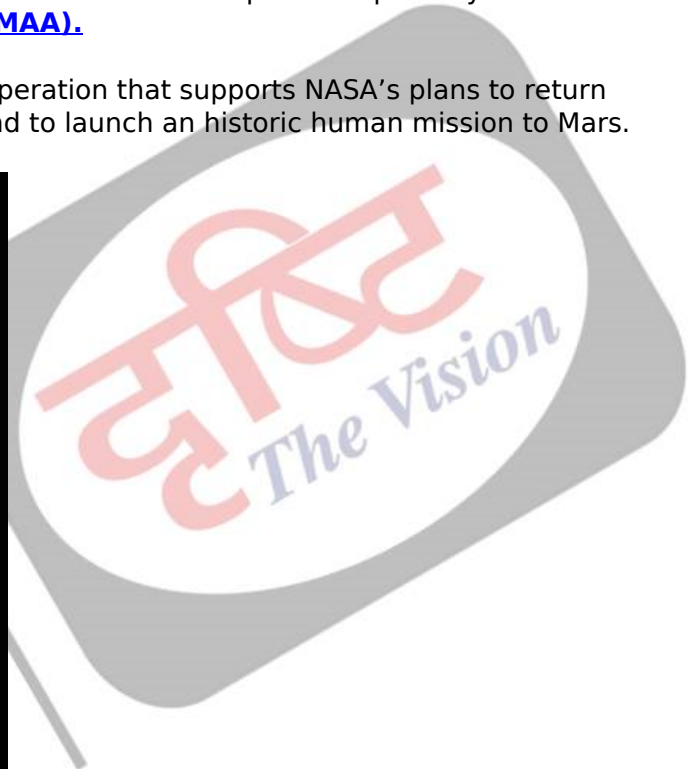
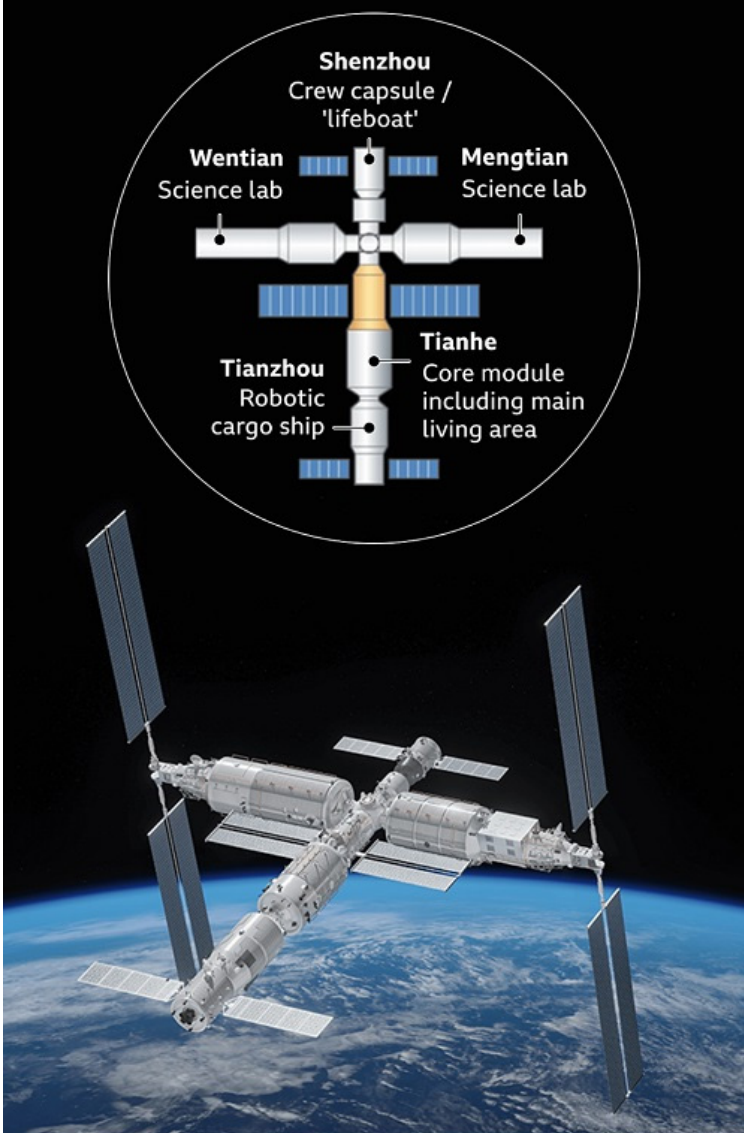
- In May 2021 [China's Tianwen spacecraft](#) landed on Mars carrying a **rover, the Zhurong**.
 - It will conduct scientific investigations into the planet's soil, geological structure, environment, atmosphere and water.

◦ 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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