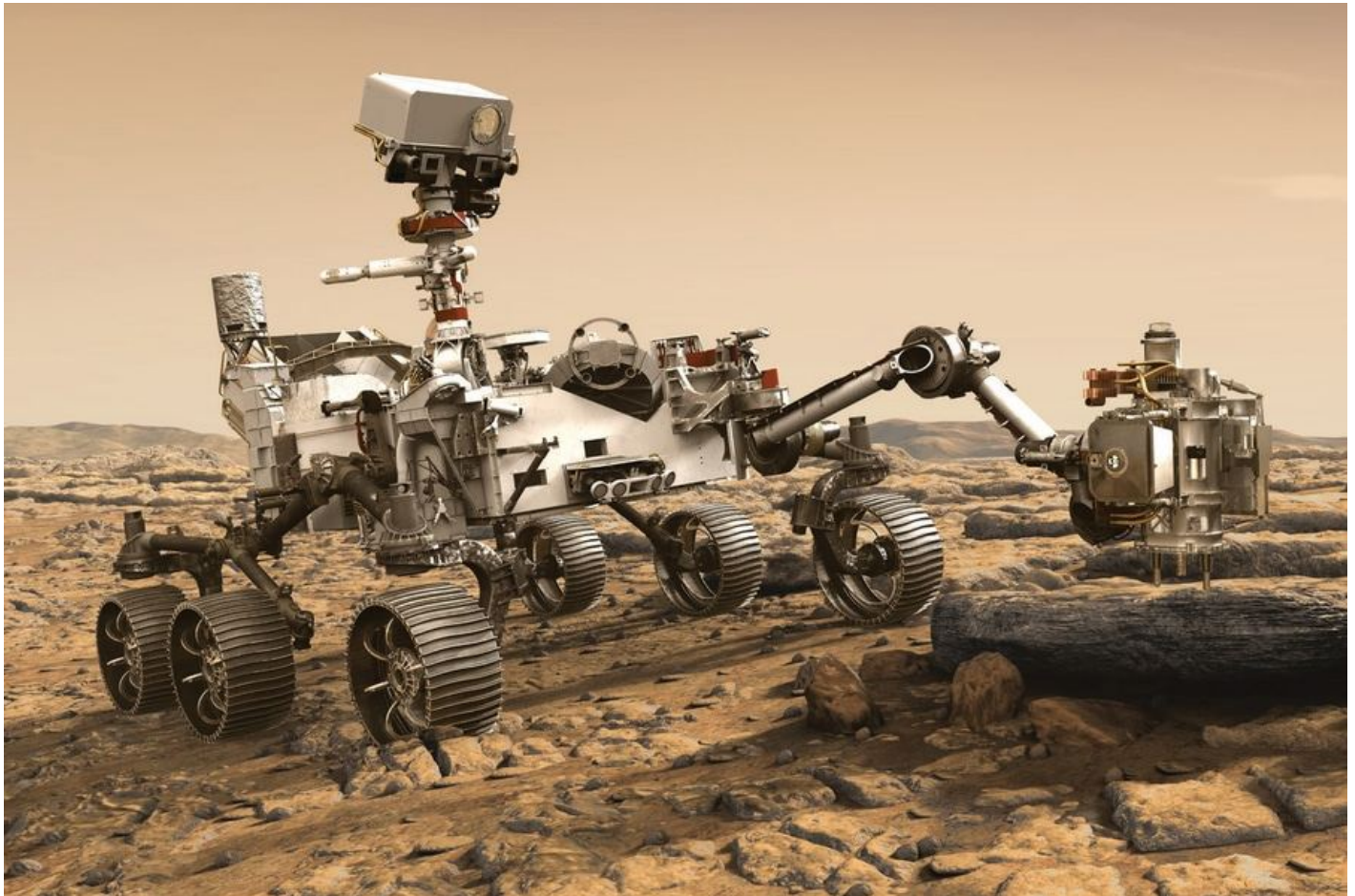


What is NASA's Perseverance rover?

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Why in News?

- The tube will be part of a depot that will be considered for the return to Earth as part of the Mars Sample Return Campaign.

About Perseverance rover:

- It is **robotic explorer to land on Mars** as part of NASA's ongoing **Mars 2020 Mission**.
- **Main Job: Seek signs of ancient life** and **collect samples of rock** and regolith (broken rock and soil) **for possible return to Earth**.
- The rover will collect samples of rock and soil, encase them in tubes, and leave them on the planet's surface to be returned to Earth at a future date.
- **Launch:** It was launched on **July 30, 2020** from Cape Canaveral, Florida.

- **Landing:** Successfully landed on the surface of **Mar's Jezero Crater on Feb. 18, 2021.**
- **Features:**
- It is about **3 metres long, 2.7 metres wide**, and 2.2 metres tall.
- It is about the **size of a car**, but weighs only about 1,025 kilograms with all instruments on board.
- **Power source:** Multi-Mission Radioisotope Thermoelectric Generator (MMRTG). **Converts heat from the radioactive decay of plutonium into electricity.**

Ingenuity Helicopter:

- It is a **small, autonomous aircraft.**
- **Main Job:** Technology demonstration **to test the first powered flight on Mars.**
- The helicopter rode to Mars **attached to the belly of the Perseverance rover.**

It became the **first aircraft in history** to make a powered, **controlled flight on another planet.**

Q1) What is Mars 2020 Mission?

The Mars 2020 Perseverance Rover mission is part of NASA's Mars Exploration Program, a long-term effort of robotic exploration of the Red Planet. The mission addresses high-priority science goals for Mars exploration, including key questions about the potential for life on Mars.

Source: [NASA's Perseverance rover completes 'sample depot' on Mars: Here's how they will reach Earth](#)

Source: <https://vajiramandravi.com/current-affairs/what-is-nasas-perseverance-rover/>

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