

NASA's Mars Sample Return Program

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Recently, NASA's Perseverance Rover, nicknamed Percy, created the **first "sample depot on another world"** by putting down **ten rock sample tubes** that were supposed to be returned to Earth as part of the **Mars Sample Return Campaign**.

- However, the plan is too expensive costing \$11 billion, and will only be executed by the year
 2040.
- Perseverance rover:
 - It is a **robotic explorer** part of NASA's Mars 2020 mission.
 - Launched in July 2020, it landed on Mars' Jezero Crater in February 2021.
 - It is a <u>Mars rover</u> about the size of a car but weighs only about **1,025 kilograms** with all instruments on board.
 - It collects rock and soil samples, encasing them in tubes for a future return to Earth.
 - A **Multi-Mission Radioisotope Thermoelectric Generator**, which uses heat from plutonium decay to generate electricity, acts as the power source for the rover.

Read more: Perseverance Rover, Mars

PDF Reference URL: https://www.drishtiias.com/printpdf/nasa-mars-sample-return-program