

ExoMars 2022 mission

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In news—The European Space Agency's ExoMars 2022 mission won't be launched in September as planned after the agency suspended all cooperation with Russia's space program Roscosmos.

About the ExoMars Mission-

- **Led collaboratively by Roscosmos and the ESA, the mission aims to study past life on Mars.**
 - This relates to its name, with the 'exo' referring to the study of exobiology – the possible existence of life beyond Earth (sometimes also referred to as astrobiology).
- **ESA and NASA were the original ExoMars collaborators, but NASA dropped out in 2012 due to budgeting problems. Russia took NASA's place in the project in 2013.**
 - **The ExoMars consists of two missions: First is** the Trace Gas Orbiter (TGO) with an Entry, Descent and Landing Demonstrator Module, Schiaparelli, which launched in 2016 (crashed).
 - From orbit, TGO's main objectives are to search for evidence of methane and other trace atmospheric gases that could be signatures of active biological or geological processes.
 - The September 2022 launch would have been a second installment to deliver a Mars rover to the planet.
- **The mission uses a number of Russian-made components – including the rockets.**
- **The 2016 launch used a Russian-made Proton-M rocket, the same type planned for the launch in September.**
- Many components of the mission's rover are also Russian-

made, including radioisotope heaters that are used to keep the rover warm at night on the surface of Mars.