

The Rosalind Franklin ExoMars Rover

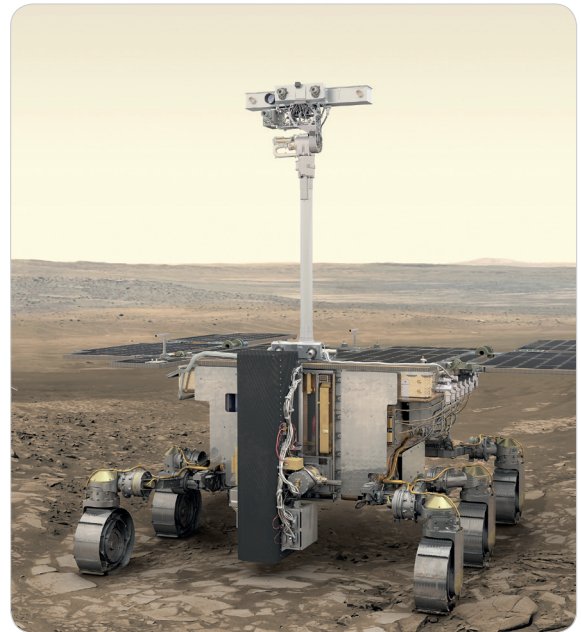


In 2021, a high-tech rover will land on Mars and begin exploring this strange world. Until now, the robot has been called the ExoMars rover, but it was decided that the public should send in suggestions of a new name for the rover. The UK Space Agency launched a competition to rename the rover, and before long 36,000 ideas had been suggested by people from all European Space Agency Member State countries. A winner has been announced: Rosalind Franklin.

Rosalind Franklin was a British chemist and X-ray crystallographer (someone who uses light to study the structure of materials smaller than we can see). She helped us to understand that DNA – which has all the instructions that living things need to grow, reproduce, and function – is shaped like a double-helix. It is a tradition for ESA to name missions after great scientists, for example Newton, Planck, and Euclid.

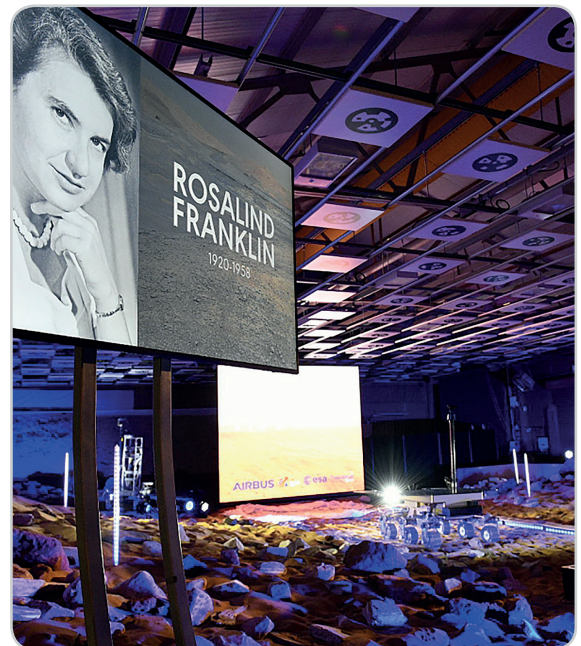
The name is well chosen, because the rover Rosalind Franklin will be searching for the building blocks of life on Mars. It is the first robot of its kind that can both roam around Mars, and also drill down to study samples two metres below the surface. This is exciting because Mars was home to liquid water a long time ago, but now has a dry surface with lots of harsh radiation from the Sun. If Mars has been home to simple forms of microbial life in its past – or maybe even still is today – then scientists believe that it is most likely to be found buried underground, where moisture may still exist, and the surface rock above can give protection from radiation.

ESA have teamed up with the Russian State Space Corporation, Roscosmos. By working together, the ExoMars mission has already put a spacecraft in orbit around Mars – the Trace Gas Orbiter. It will relay data from Rosalind Franklin back to Earth when the rover starts its exploration.



ExoMars Rover

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The ExoMars rover's new name is announced in the Mars yard at Airbus Defence and Space, Stevenage

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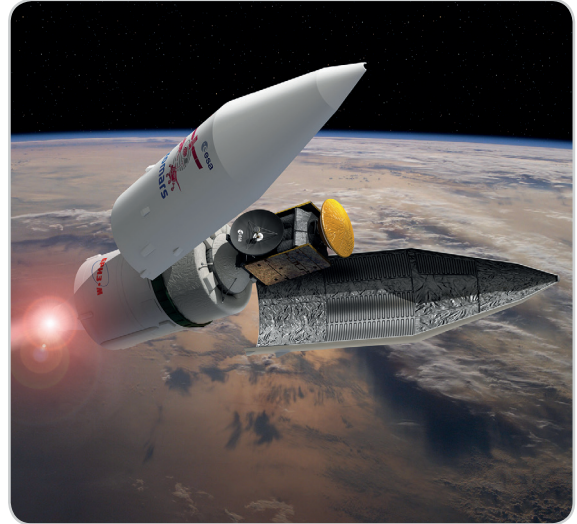
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The UK Space Agency is the second largest European contributor to the ESA-Roscosmos ExoMars mission, having invested €287 million in the mission and £14 million on the instruments.

Airbus Defence and Space in Stevenage is leading the build of the rover while the University College London Mullard Space Science Laboratory is leading on a key instrument known as the PanCam, a high-resolution 3D camera which will be used to look at the terrain and rocks to try to detect signs of life.

The University of Leicester and Teledyne e2v are working on the Raman Spectrometer with Science and Technology Facilities Council RAL Space providing some of the electronics, including the data processing board.



The ExoMars Trace Gas Orbiter fairing release

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