Video: Moving on Mars

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The ExoMars mission will see Rosalind Franklin the rover and its surface platform Kazachok land on the Red Planet in 2021. From fine-grained soil to large boulders and slopes, the rover has to be able to move across many types of terrain, collect samples with a 2 m-long drill and analyze them with instruments in its onboard laboratory.

This second episode about ExoMars features the challenges of leaving the surface platform, overcoming obstacles and walking on dunes.

ESA, Roscosmos, Thales, Airbus and RUAG engineers put a full-sized model through a series of tests to fine-tune how the rover will move from its landing platform onto the Martian terrain.

Rovers on Mars have previously been caught in sand, and turning the wheels dug them deeper—just like a car stuck in mud or snow. To avoid this, Rosalind the rover has a unique locomotion mode called 'wheel walking'.

Provided by European Space Agency

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