
Russia Sends Its First Humanoid Robot Fedor Into Space

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Moscow: Russia on Thursday launched an unmanned rocket carrying a life-size humanoid robot that will spend 10 days learning to assist astronauts on the International Space Station.

Named Fedor, short for Final Experimental Demonstration Object Research, the robot is the first ever sent up by Russia.

Fedor blasted off in a Soyuz MS-14 spacecraft at 6:38 am Moscow time (0338 GMT) from Russia's Baikonur cosmodrome in Kazakhstan. The Soyuz is set to dock with the space station on Saturday and stay till September 7.

Soyuz ships are normally manned on such trips, but on Thursday no humans are travelling in order to test a new emergency rescue system.

Instead of cosmonauts, Fedor, also known as Skybot F850, was strapped into a specially adapted pilot's seat, with a small Russian flag in hand.

"Let's go. Let's go," the robot was heard saying during launch, repeating the famous phrase used by first man in space Yuri Gagarin.

The silvery anthropomorphic robot stands 1.80 metres (5 foot 11 inches) tall and weighs 160 kilogrammes (353 pounds).

Fedor has Instagram and Twitter accounts with posts saying it is learning new skills such as

opening a bottle of water. In the station, it will trial those manual skills in very low gravity.

"That's connecting and disconnecting electric cables (and) using standard items, from a screwdriver and a spanner to a fire extinguisher," the Russian space agency's director for prospective programmes and science, Alexander Bloshenko, said in televised comments ahead of the launch.

"The first stage of in-flight experiments went according to the flight plan," the robot tweeted after reaching orbit.

Fedor copies human movements, a key skill that allows it to remotely help astronauts or even people on Earth to carry out tasks while the humans are strapped into an exoskeleton.

Such robots will eventually carry out dangerous operations such as space walks, Bloshenko told the state news agency RIA Novosti.

On the website of one of the state backers of the project, the Foundation of Advanced Research Projects, Fedor is described as potentially useful on Earth for working in high radiation environments, demining and tricky rescue missions.

Though initially developed for the emergencies ministry, Fedor can also be seen shooting at targets from two handguns in a video posted by Russian space agency chief Dmitry Rogozin.

On board, the robot will perform tasks supervised by Russian cosmonaut Alexander Skvortsov, who joined the ISS in July and will wear an exoskeleton and augmented reality glasses in a series of experiments later this month.

Since Fedor is not trained to grab space station handles to move about in microgravity conditions, its legs will be immobilised on the space station, Bloshenko said.

Fedor not the first

Space agency chief Rogozin showed pictures of the robot to President Vladimir Putin this month, saying it will be "an assistant to the crew".

"In the future we plan that this machine will also help us conquer deep space," he added.

Russian media speculated that Fedor-like robots will be used in Russia's Moon programme.

Fedor is not the first robot to go into space.

In 2011, NASA sent up Robonaut 2, a humanoid robot developed with General Motors that had a similar aim of working in high-risk environments.

It was flown back to Earth in 2018 after experiencing technical problems.

In 2013, Japan sent up a small robot called Kirobo along with the ISS's first Japanese space commander. Developed with Toyota, it was able to hold conversations -- albeit only in Japanese.