

# Russian humanoid robot boards space station after delay

August 27 2019, by Maxime Popov

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The lifesize robot is due to stay on the International Space Station until September 7, learning to assist astronauts there

It was second time lucky on Tuesday as an unmanned spacecraft carrying Russia's first humanoid robot docked at the International Space Station following a failed attempt over the weekend.

"Sorry for the delay. Got stuck in traffic. Am ready to carry on with work," the robot's Twitter account said in a jokey first tweet from space.

Copying human movements and designed to help with high-risk tasks, the lifesize robot, Fedor, is due to stay on the ISS until September 7.

Speaking to Russian cosmonauts on the ISS via a video link-up, President Vladimir Putin lavished praise on them for the way they handled the glitch.

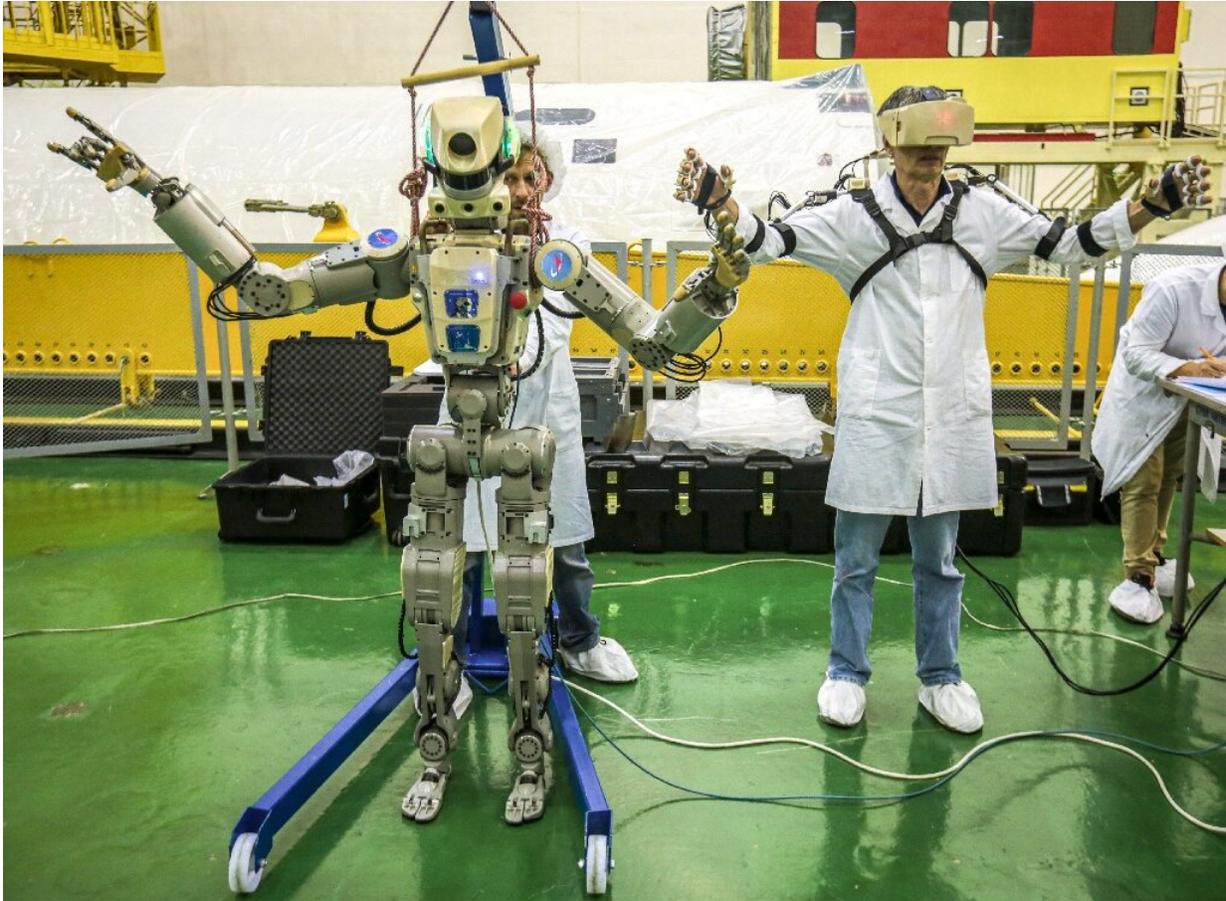
The problems with docking were "in some way abnormal", he said, adding that "as usual for our cosmonauts, you dealt with this work magnificently".

The robot sat in the commander's seat of an unmanned Soyuz spaceship that blasted off Thursday from a Russian spaceport in southern Kazakhstan.

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

Soyuz capsules are normally manned on such trips, but this time no humans were travelling in order to test a new emergency rescue system.

The ship was carrying scientific and medical equipment and components for the space station's life-support system, as well as food, medicines and personal hygiene products for crew members, Russia's Roscosmos space agency said.



The robot can be operated manually by ISS astronauts wearing exoskeleton suits and it mirrors their movements

After the successful docking at the second attempt, a NASA TV commentator praised the vessel's "flawless approach to the ISS".

"Second time was a charm... the crew is up to seven," he said, referring to the six astronauts aboard the space station.

Putin told the crew he hoped Fedor "will give you the help you need and support in your interesting work that is needed by all of us".

## Failed attempt

An aborted attempt to dock on Saturday raised more questions over the future of Russia's space programme, which has suffered a number of recent setbacks.

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### Russia space robot

A humanoid robot, travelling via an unmanned spacecraft has arrived at the International Space Station

**FEDOR**

**Final Experimental  
Demonstration Object Research**

AKA  
Skybot F-850

Can be controlled in  
telerobotic mode by an  
operator using a  
*virtual reality headset*

Can also function in  
*autonomous mode*

ISS MISSION:  
Test a new emergency rescue  
system

Source: [Wired/Space.com/Russian media](http://Wired/Space.com/Russian%20media)

Height:  
*1.8 m*

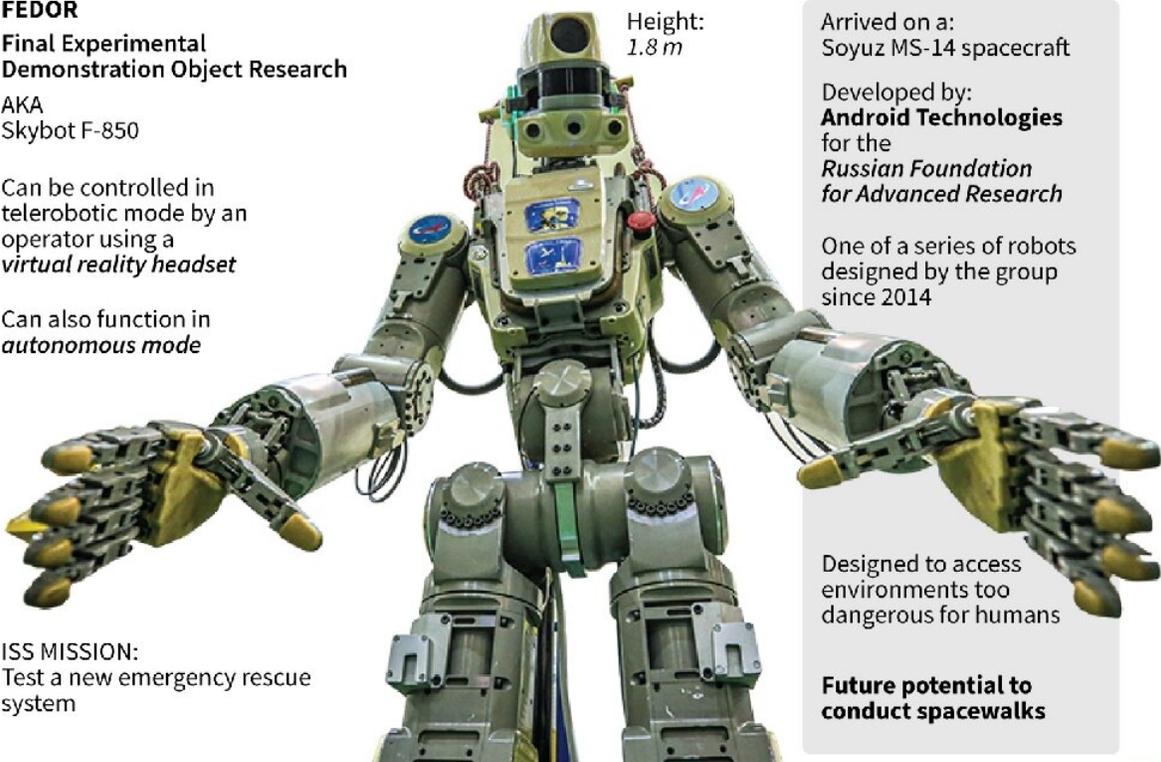
Arrived on a:  
Soyuz MS-14 spacecraft

Developed by:  
**Android Technologies**  
for the  
*Russian Foundation  
for Advanced Research*

One of a series of robots  
designed by the group  
since 2014

Designed to access  
environments too  
dangerous for humans

**Future potential to  
conduct spacewalks**



© AFP

The new robot even has its own Twitter account

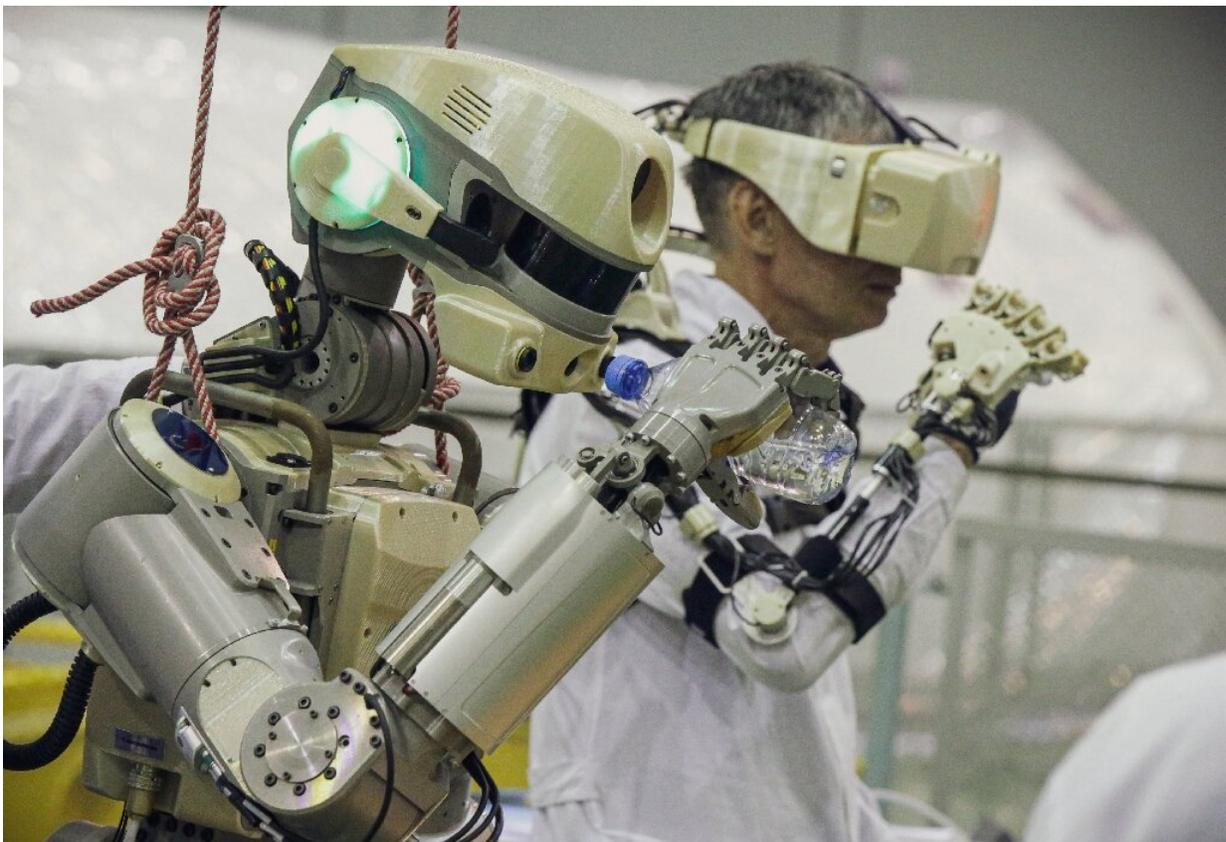
Last October, a Soyuz rocket carrying an American and a Russian had to make an emergency landing shortly after lift-off—the first failure in the

history of manned Russian flights.

On Saturday, NASA had said the Soyuz craft was "unable to lock onto its target at the station".

Russian flight controllers had told the ISS crew it appeared the problem that prevented automated docking was in the station and not the Soyuz spacecraft, NASA added.

Fedor—short for Final Experimental Demonstration Object Research—can be operated manually by ISS astronauts wearing robotic exoskeleton suits and it mirrors their movements.



The lifesize robot is named Fedor, short for Final Experimental Demonstration

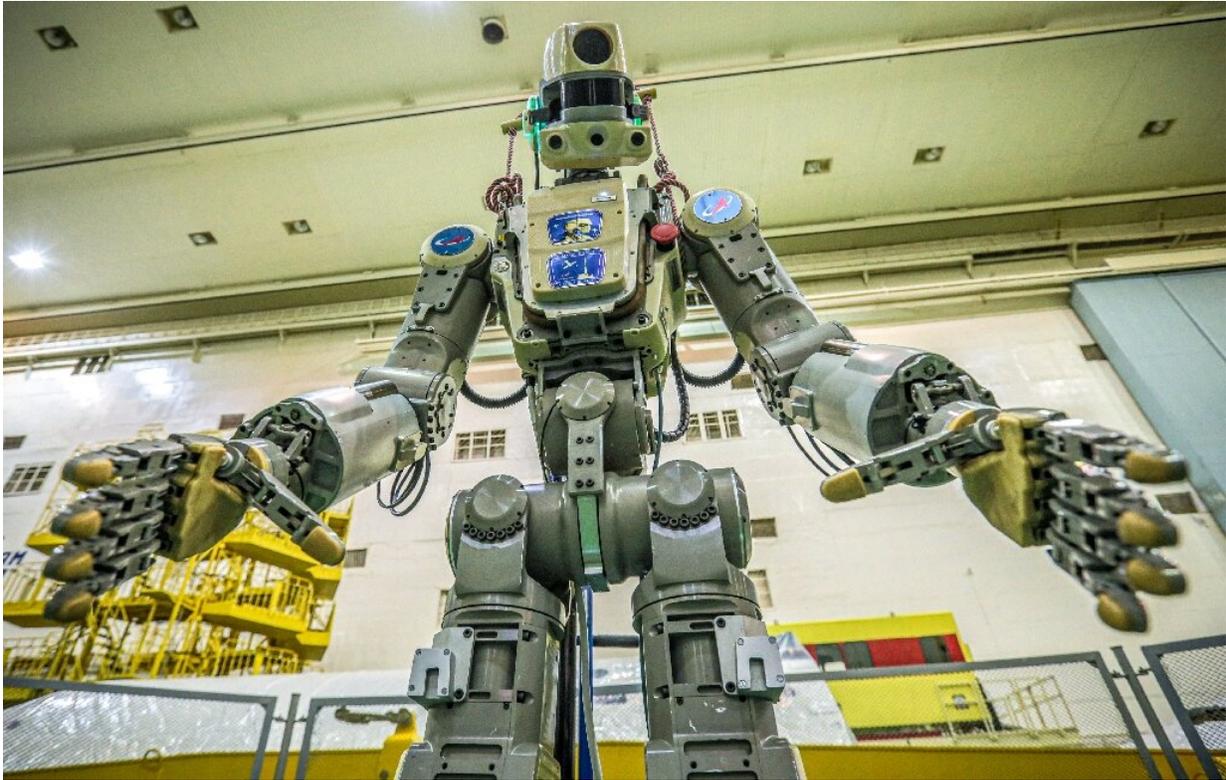
## Object Research

Robots like Fedor will eventually carry out dangerous operations such as space walks, according to the Russian space agency.

Its head Dmitry Rogozin told Interfax news agency that the next stage for Fedor could be further tests on the Federatsiya—the manned transport ship Russia is developing—or a spacewalk to work on the outside of the ISS.

"That's what he's being created for. We don't really need him inside the station," Rogozin said.

Fedor is not the first robot to go into space. In 2011, NASA sent up Robonaut 2, a humanoid developed with General Motors that had a similar aim of working in high-risk environments.



Robots like Fedor will eventually carry out dangerous operations such as space walks, according to the Russian space agency

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.

The International Space Station has been orbiting Earth at about 28,000 kilometres per hour (17,000 miles per hour) since 1998.

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