

# Robotic arm breakdown adds spacewalk drama

February 28 2011, by Kerry Sheridan

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This image taken from video by NASA television shows astronaut Stephen Bowen during a spacewalk, Monday, Feb. 28, 2011. (AP Photo/NASA)

Two US astronauts on Monday wrapped up the [first spacewalk](#) of the Discovery shuttle mission at the International Space Station after a robotic arm breakdown left one of them stranded for almost 20 minutes.

"How much longer?" asked veteran astronaut Steve Bowen after the Robotic Work Station in the ISS's Cupola, the central command post for robotic operations, shut down two hours into the walk.

[Robotic arm](#) operators Scott Kelly and Mike Barratt hustled to another

work station in the Destiny Lab and were able to continue their [spacewalk](#) support without rebooting the failed system, NASA said.

"All they did was pause," NASA spokesman Kyle Herring said. "It wasn't a big deal. He (Bowen) just relaxed on the end of the robotic arm."

The delay lasted 15-to-20 minutes, Herring said.

Bowen and fellow US spacewalker Alvin Drew stayed calm and got plenty of work done after the robotic arm failure, ending the 6.5-hour excursion with a lighthearted experiment to bottle some outer space for Japan.

NASA played The Police song "Message in a Bottle" to serenade the two Americans floating outside the ISS as astronaut Drew opened and then recapped a metal cylinder that had been signed by many astronauts.

The [space capsule](#) will return to Earth to go on display, as part of a joint effort by NASA and the Japan Aerospace Exploration Agency, JAXA, to capture the vacuum of space.

The spacewalk was Bowen's sixth and the first for Drew, an African-American astronaut who became the 200th person to walk in space with Monday's trip.

The pair also took care of some technical matters ahead of the installation of the Permanent Multipurpose Module, a spare closet area that will stay at the ISS and give extra space for storage and experiments.

They attached a new extension power cable for backup purposes between the Unity node and the Tranquility module and put a wedge under a video camera, angling it so that astronauts have room to add

spare parts later on.

The pair then attached an 800-pound (363 kilograms) ammonia pump module to External Stowage Platform 2 on the outside of the Quest airlock.

They also installed extensions to the mobile transporter rail as preparation for the setup of the Italian-built Leonardo module as a permanent fixture at the lab.

The walk began at 1546 GMT, about 30 minutes earlier than scheduled, but the robotic breakdown delayed the walk so that in the end it lasted four minutes longer than planned.

A second spacewalk is planned for Wednesday.

Bowen and Drew are part of a six-member US crew that arrived at the ISS on Saturday aboard Discovery, which launched Thursday on its final mission.

After it wraps up this journey, Discovery will become the first of three spacecraft -- alongside Endeavour and Atlantis -- to retire this year as the American shuttle program ends.

Discovery crew is at the ISS to deliver the Permanent Multipurpose Module and the Express Logistic Carrier, an external platform for large equipment.

It has also carried the first humanoid robot to the ISS.

Bowen replaced astronaut Tim Kopra after a bicycle accident in January.

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