

Image: Station astronaut sets up capillary channel flow experiment

August 13 2014



Credit: NASA

NASA astronaut Reid Wiseman, Expedition 40 flight engineer, installs Capillary Channel Flow (CCF) experiment hardware in the Microgravity Science Glovebox (MSG) located in the Destiny laboratory of the International Space Station.

CCF is a versatile experiment for studying a critical variety of inertial-

capillary dominated flows key to spacecraft systems that cannot be studied on the ground.

Capillary flow is the natural wicking of fluid between [narrow channels](#) in the opposite direction of gravity. Tree roots are one example of a capillary system, drawing water up from the soil.

By increasing understanding of capillary flow in the absence of gravity, the Capillary Channel Flow (CCF) experiment helps scientists find new ways to move liquids in space. Capillary systems do not require pumps or moving parts, which reduces their cost, weight and complexity.

Provided by NASA

Citation: Image: Station astronaut sets up capillary channel flow experiment (2014, August 13) retrieved 23 June 2024 from <https://phys.org/news/2014-08-image-station-astronaut-capillary-channel.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.