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# Fast Actuating Rectum Transfer Exit Device (FARTED)

NASA's Lunar Loo Challenge

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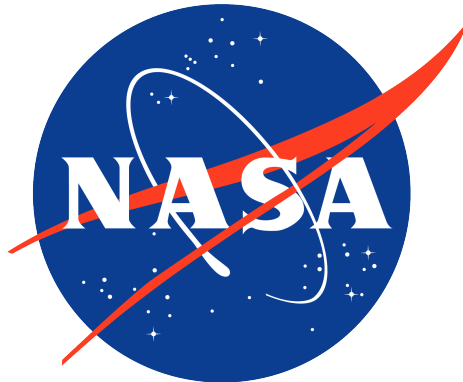
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## Introduction

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As NASA prepares for our return to the Moon, innumerable activities to equip, shelter, and otherwise support future astronauts are underway. These astronauts will be eating and drinking, and subsequently urinating and defecating in microgravity and lunar gravity. While astronauts are in the cabin and out of their spacesuits, they will need a toilet that has all the same capabilities as ones here on Earth. NASA is calling on the global community for their novel design concepts for compact toilets that can operate in both microgravity and lunar gravity. These designs may be adapted for use in the Artemis lunar landers that take us back to the Moon. Although space toilets already exist and are in use (at the International Space Station, for example), they are designed for microgravity only. NASA's Human Landing System Program is looking for a next-generation device that is smaller, more efficient, and capable of working in both microgravity and lunar gravity. This challenge includes a Technical category and Junior category.