Design and Development of a Microgravity Stowage System Specific for Deep Space Exploration

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Overview

The purpose of the NASA X-Hab Academic Innovation Challenge is to engage university students in real world engineering projects in order to provide relevant experience to the Students. By partnering with NASA, the UAH team completed a Logistics Repurposing project. The challenges faced by the UAH design team were that of developing a product that would meet the requirements associated with long term deep space mission.

Impact

Utilizing the NASA Systems Engineering design approach, the team members designed and manufactured our design solution, currently installed in the Deep Space Habitat mockup at Marshall. The team then evaluated the experience, and the current presenter published and discussed the effectiveness of the undergraduate curriculum at the 64th International Astronautical Congress, in Beijing, China.

The long term results benefit the students as well as NASA. The value of innovative minds combined with experienced professionals as well as the actual design solution developed by the team, for potential integration in future space explorations. The students gained valuable professional experience in real world engineering design challenges, as well as gaining insight in the challenges for future space exploration.

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