

33rd IAA SYMPOSIUM ON SPACE AND SOCIETY (E5)

Late breaking abstracts (LBA)

Author: Prof. Melodie Yashar
ICON, United States, melodieyashar@gmail.com

SPACE VEHICLE OUTFITTING AND INTERIORS: ESTABLISHING A PLATFORM FOR
COLLABORATION BETWEEN INDUSTRY AND ACADEMIA AS AN ACCELERATOR FOR
HUMAN-CENTERED DESIGN

Abstract

In Spring 2022, Art Center College of Design established a topic studio to explore vehicle and habitat outfitting for future space exploration applications as well as tourism markets. The course engaged industry professionals from Blue Origin, NASA's Human Habitability Division, Axiom Space, as well as others within the commercial sector as a means of identifying research gaps in human-centered design elements for future space interiors. Through a semester long collaboration, student projects introduced countermeasures to gaps by augmenting and/or outfitting a current spaceflight vehicle and habitat framework. Art Center pursues a global approach to industrial design, architecture, and furniture design to focus on spatial experience from a human-centered perspective. The resulting projects demonstrate novel and creative problem-solving approaches to the certification of flight-ready materials in space, solutions to isolation and confinement in long duration missions, solutions for food systems, and solutions for physical translocation and bodily restraint within microgravity environments.