

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Interactive Presentations - IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (IP)

Author: Mr. Roy Wasson Valle
Arizona State University, United States

CREATIVE SPECULATION

Abstract

I am a Master of Fine Arts student in his final year of study. Last year I was tasked by a special program called the Interplanetary Initiative to assist in answering the question: "How do we galvanize public and private support for space exploration?" My part in answering this question was to design and build a speculative Mars Habitat from a hundred years in the future. This Habitat is intended for the use at conferences and events where members of the general public can enter and interact with all aspects of the Habitat in a fully hands on experience. The space we have been working with is the conversion of a box trailer that is 24 ft by 8 ft. As an artist my approach has been one of intuitive design to create an environment that could support three crew members for short periods of time, while living and working on the surface of Mars. The project is part of a narrative where three different companies have come together to form a new mining company in order to mine resources on Mars for the support of colonial life. My initial task has been to create the guts of the experience in what is essentially a tiny home on Mars. The primary use in the narrative is an estimated two week surveying mission. We call it the MaRV, but its more exact title is that of Mars Exploration Mobile Environment (MEME). As I have worked on this project for the last eight months, the scope of engagement has expanded from the final product for the general public to engagement with the different schools at my university. To really create an experience that is believable and interesting, we have to approach each topic inside the Habitat with great thought and backing research. We are now reaching out to students and student groups that would be interested in taking on certain topics in the Habitat, from water reclamation and food preparation, to exercise in one third gravity. These projects would fall under the heading of Senior Capstone that undergraduate students are expected to complete before graduation. What we are working on beyond the Capstones would be to formalize this process under the general title Creative Speculation where students from Art and Design would work closely with Science and Engineering students to further research solutions to living and working in space.