

26th IAA SYMPOSIUM ON HUMAN EXPLORATION OF THE SOLAR SYSTEM (A5)  
Interactive Presentations - 26th IAA SYMPOSIUM ON HUMAN EXPLORATION OF THE SOLAR  
SYSTEM (IP)

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## HOW TO BUILD AN EFFICIENT SPACE HABITATS?

### Abstract

Space habitats are the most important part to focus in our exploration on the Mars and the Moon thus we should overcome this problem that how we should build our own eco-system on other planets. Problems that we should overcome are gravity, dangerous radiation, and meeting all needs that are meet from the Earth such as water, oxygen, and foods, but the question is how?

First, we need to find a solution for the gravity problem because almost everything that we have, is working based on gravity therefore my solution is to overcome this problem with building a system based on centrifugal force which in high speeds can give us fake gravity that we need. Building a circular station that rotates at high speed is the best solution to the gravity problem.

After that, we need to make situation liveable with avoiding dangerous radiation from the Sun, with laser shield we can stop all radiation that is coming from the Sun. Also when we build our own eco-system, all the plants that we have, will make their own environment liveable. Finally, the main concern are foods, water, and oxygen. Let me say an example, Have you ever seen a terrarium? small eco-system that runs by itself without having any connection with world. That means that we need to build our own terrarium on the Mars and the Moon. But what do we need for our terrarium? we need to plant special plants that can live in almost impossible situations. Plants that can filter air form benzene such as Weeping Fig, and bambo trees. It is not all, we also need to have animals and insects that help soil and plants to work properly such as Hissing Cockroaches, Giant Millipede and Snails. All of these stages are vital and should not be avoided.

In conclusion, as well as it is important to build our bases on other planets we should take care of those planets as well, we cannot make big risks to change everything on those planets thus all of our plans should be regulated and avoid any harmful impact on the other planets. Therefore plans should be applicable which with the least impact lead to a successful result.