

Humans in Space

If humans are to use science and technology to truly explore space, we would first have to build a spaceship that could carry humans for long periods of time, and begin by exploring the solar system. It will be a long and hard task to do. First we have to build this spaceship, and then we have to send a small group of humans into space for 20 to 30 years, creating 'space colonies' in different planets or moons. The spaceship may sound like something that modern day humans cannot build, but I think that humans *can* create this spaceship and here's how.

The spaceship will have to be built in orbit around the moon rather than on earth, because materials on the moon are untouched and very cheap. Also, if the spaceship was built on earth itself, it would take up a lot of space and fuel to put it into orbit which will cost too much. The spaceship will be constructed so there will be a ring rotating around an engine creating artificial gravity. Artificial gravity will help the humans stay in space longer by keeping their bones healthy. A food producing greenhouse, a water shield protecting the crew from cosmic radiation, and the crew living area will all be in the ring of the spaceship.

For humans to survive, phytoplankton will be placed in the water shield, because phytoplankton can turn carbon-dioxide into oxygen for the humans to breathe. However, too much phytoplankton will rob the plants in the greenhouse of carbon-dioxide. Also, because phytoplankton need salt water to live but humans need fresh water, we will need science to turn the salt water into fresh water. To make this happen, we will kill the excess phytoplankton by evaporating the water, and then, the evaporated water will get sent into a cold chamber which turns it into fresh water for the astronauts on the spaceship to drink. To feed the humans, the greenhouse will produce grains, veggies, fruits, beans and soy milk to have access to all of the food groups. Now, humans are ready to live in the spaceship.

When the Spaceship leaves the Moon or any other gravity field, it will have to have fuel to escape the gravity field and continue into outer space. The fuel for the spaceship will come from vegetable oils from the greenhouse, a small nuclear power plant, some solar panels, a hydroelectric power plant, and liquid hydrogen and oxygen. When the spaceship is safely out of that gravity field, it will propel forward until it hits another planet or moon's gravity field. Whenever the Spaceship approaches a planet or moon containing a fuel, a robotic probe or a manned rocket will be launched out of the spaceship to mine or collect the fuel. The mined or collected fuel will then be turned into the correct state of matter when it gets back to the spaceship. The spaceship will then have a steady supply of fuel allowing for a safe transit between planets.

When the spaceship reaches a planet or moon that contains a lot of valuable materials, it will set up a colony in orbit of the planet or moon or on that planet or moon. To colonize a planet, tons of frozen human embryos will be brought from earth. When the crew of the spaceship finds a planet to colonize, they will put the embryos in an environment where they can grow before birth which will require a lot of science and technology. (This will involve making an incubator that recreates the conditions in the mother's belly.) After the babies are born, they will go with one member of the crew to the colony, a huge area that has a greenhouse and a shield similar to the spaceship. Now the human race can begin to colonize other planets or moons.

When the spaceship finally gets back to earth, the crew will have many stories to tell and many artifacts to give to scientists. But more important, it will be one of the biggest accomplishments in human history and the people left in the colonies will carry on the legacy of humans in space. Then a new crew will hop in the spaceship, head off make more discoveries, give supplies to the colonies and take valuables that the colonies have collected. The spaceship and its space colonies with life on planets outside earth may force humanity to think of itself as a planet, not a set of separated countries, which could lead to greater world peace. The technology used to make the spaceship may even be used on earth (e.g. the environment were premature babies can grow.) Overall the discoveries that the spaceship makes will be beneficial to the entire human race. Now, humans will be able to create life in space *and* improve life on Earth.