



T-223

Problem Statement:

Shelter Design:

The team has to design the shelter for those living on Kepler 1649c, taking the atmosphere and weather into consideration. Ideate the living space and various other utilities such as clothing and food. Make sure you ideate how to recycle, reduce, reuse.

Abstract for Solution:

Since, Kepler 1649c is a sibling of planet Earth, as it is in habitable zone of the red-dwarf star Kepler 1649, it is safe to assume the following:

- The atmospheric pressure supports liquid water to be present.
- The planet core consists of same materials, given the radius of Kepler is 1.06 times that of Earth.

Following are the possible implementations to be done:

- The temperature of the materials used, should trap heat as ambient temperature is around 234K, while the average temperature of Earth is 288K(i.e, majority construction should be like glass, which traps IR rays)
- The Clothing also should follow the suite, heat trapping material(artificial wool etc)
- The material used for construction purposes should also be heat resistant, as Kepler 1649 is a red-dwarf, lot of solar activity is obvious.
- Food supplies gotta be from lab(potatoes, in martian) specially incubated in temperature cells, to support growth.

So, this is the abstract of the solution. Ofcourse, whatever materials are the equivalent local material available.