

# WAITING FOR US TO BE REACHED A JOURNEY TO MARS



Every day brings a fresh surprise from the twenty-first century. Every time we make progress toward a better society, a host of obstacles, including climate change, fatal illnesses, and an increase in the population that causes greater hunger, poverty, crime, terrorism, and density, pull us back. The Earth has too many animals for there to be enough resources to meet even the most basic requirements. While a larger number of specialists and communities are busy investigating the prospects of life on other planets, the problem of density compels architects and designers to discover alternate solutions to cities and living circumstances. Architects have expertise in designing on practically any type of surface, including land, water, trees, etc. However, basing a whole settlement on a new planet would come with its own set of challenges. An engineer would create anything that an architect designed, but on MARS, architects must follow engineers, which stifles their creative freedom. Space has the power to excite, inspire humanity, and push the limits of science and creativity. Even in the creation of a liveable outer space, architecture plays a crucial role. This capacity to live on planets outside of Earth is essential to our species' survival. Designing for an outer planet requires consideration of technology, materials, and human considerations. Additionally, it is believed that a space habitat might eventually house a permanent human settlement outside Earth (considering Mars to be the foremost one). To make this possible expertise in Structure configuration, space environment, environmental control and life support systems, HF (human factors), crew performance, radiation, electrical power system, thermal control system, communication system, in-situ resources, utilization, operation, and radiation is required for future human space missions.



The lives of individuals wanting to live there are threatened by the numerous difficulties that come with adopting Mars as a secondary planet. There are several strategies to avoid the hazards, despite their abundance. The greatest approach to establishing a long-lasting colony on Mars is to use architecture that includes answers to these issues into the layout of its habitats. The design should try to combat extreme radiation by using piles of regolith and 3D printed structures. The standards indicate that Martian settlement in 2040 will be more predictable and realistic thanks to emerging technologies.

Currently, the MARS mission is focused on establishing human colonies by the year 2050 for which regolith from Mars is the main source of shielding material. The whole surface of the planet is covered with soil, which offers excellent radiation defence.

The colony will not last very long without enough food, water, and air. It will be possible for civilization to survive independently by using tools like MOXIE to create and clean the air.

Plants that can be employed as a major component of the colony's food supply as well as an additional method of purifying the water and the air.

When the physical needs of humans are met, the habitat's design must consider how to keep people's minds in check. To guarantee that social standards remain the same as those on Earth, social "spaces" must be established. This will ensure both a strong community bond and the creation of a new home.

Pushing the boundaries of architecture and designing homes on other planets is what the future demands. So why not start by brainstorming ideas and concepts?

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