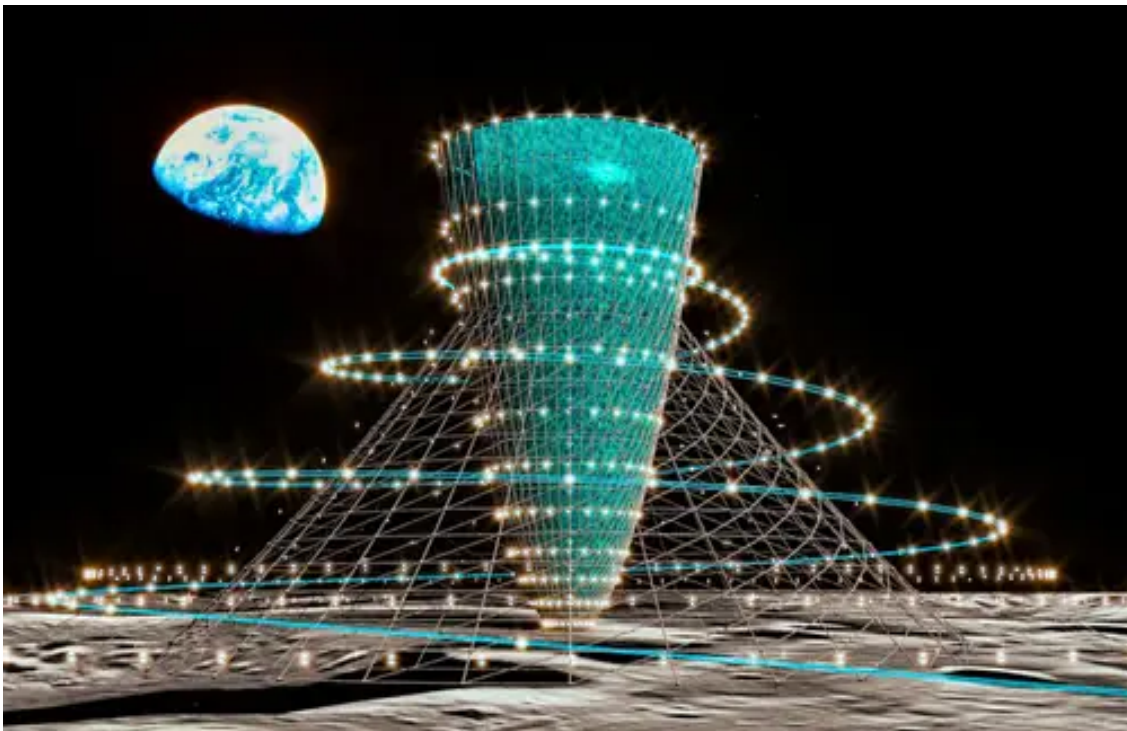


Cone-Shaped Structure Will Help Humans Live on Moon and Mars

VOCABULARY WORDS

1. Artificial /ˌɑrtəˈfɪʃəl/ (Adjective) made by people, rather than being natural
Example: The cherry blossoms looked so real however they were just artificial.
2. Gravity /ˈɡrævɪti/ (Noun) the force that pulls things toward the center of the Earth, or toward another object
Example: People will float on the moon since there's zero gravity.
3. Facility /fəˈsɪlɪti/ (Noun) a building, machine, etc. provided for a particular purpose
Example: They used the theater as a quarantine facility.
4. Hexagonal /hekˈsæɡənəl/ (Adjective) having a shape with six sides and six angles
Example: Their house has a hexagonal shape.
5. Mass /mæs/ (Noun) the amount of material that something contains
Example: Show me how to calculate mass.



A team from Japan has revealed designs for an artificial gravity living facility that could allow humans to live comfortably on the moon and Mars. The proposed project, called "The Glass," is a roughly cone-shaped structure about 400 meters high. It's designed to rotate fully every 20 seconds to achieve the same level of gravity that humans are used to on Earth — at least, at its widest part. The team, from Kyoto University and Kajima Corporation, a Tokyo-based construction firm, presented their idea to reporters on July 5, 2022.

Yosuke Yamashiki, director of the SIC Human Spaceology Center at Kyoto University, said that so far, no other country has included a similar idea in its space development plans. "Humankind is currently moving from an age of 'staying' in outer space to an age of 'living' on the moon and Mars," the team wrote in a statement. They said that creating an environment with gravity similar to that on Earth is an important step in achieving this. "Without gravity, it's possible that mammals might not be able to reproduce effectively. And even if babies are born,

normal development could not be expected in low gravity," the team explained. The team's plans currently include a "Lunar Glass" for the moon as well as a "Mars Glass" for Mars.

According to The Asahi Shimbun, constructing these giant facilities could take about 100 years. But the team hopes to build a smaller version on the moon by 2050. The plan also includes developing a transportation system called the "Hexagon Space Track System." It would load six train-like cars into a hexagonal unit that would be launched between stations around the Earth, moon and Mars. The unit would rotate as it travels to create gravity in a way similar to the Lunar Glass and Mars Glass. Both the moon and Mars have lower masses than Earth, which is why their gravity levels are different. The moon's surface gravity is only about 17% of Earth's, while the surface gravity on Mars is about 38% of Earth's.

DISCUSSION

1. What are your thoughts on "The Glass"?
2. Do you think humans will colonize the moon and Mars within your lifetime?
3. If given the chance, would you be willing to live on the moon or Mars?
4. Do you think space tourism will become commonplace within your lifetime?
5. Do you know anyone who you think would make a good astronaut?