

Artificial Moon by China

January 21, 2022

In news-Recently, Chinese scientists have built an “artificial moon” research facility that will enable them to simulate low-gravity environments using magnetism.

About China's artificial moon project-

- Being called the “first of its kind in the world”, the **facility located in the eastern city of Xuzhou, in Jiangsu province**, will make gravity “disappear”.
- It can **replicate low gravity environments for as long as one wants**, making China less dependent on zero-gravity planes to train astronauts, and environments to test new rovers and technologies.
- The facility, slated for official launch this year, will use powerful magnetic fields inside a 2-foot-diameter (60 centimeters) vacuum chamber to make gravity disappear.
- The **mini-moon is about two feet in diameter** and the artificial surface has been made with rocks and dust that are as light as those on the moon.
- The **gravity on the Moon is not zero, it is one-sixth as powerful as the gravity on Earth due to the magnetic field.**
- **The idea to develop the facility has its roots in the Russian-born physicist Andre Geim's experiments** to levitate a frog with a magnet.
- The physicists later **won a Nobel in 2000** for this groundbreaking experiment that made a frog float with a magnet.
- The levitation trick used by Geim and now in the artificial-moon chamber comes from an effect called **diamagnetic levitation.**
- China has already developed an “artificial sun” to replicate the nuclear fusion process that occurs

naturally in the sun and stars to provide almost infinite clean energy.

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