

New technology helps NASA find water, self-sufficient food on the moon

NASA is stepping up the preparation of technologies necessary both in terms of vehicles, people and logistics to serve the purpose of ambitious moon recovery.

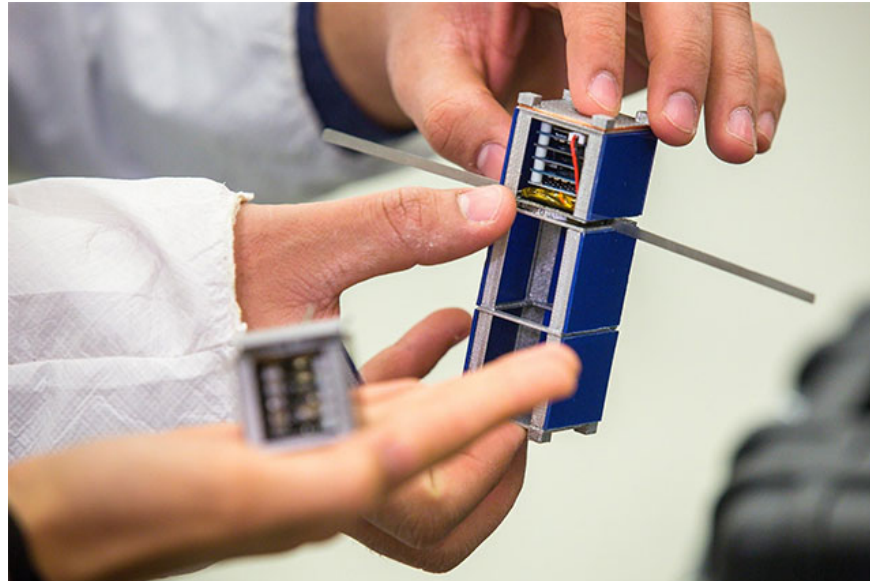
With the mission of 'landing' manpower and building research stations on the moon scheduled to begin in 2024, NASA is pushing hard to prepare the necessary technologies both in vehicles, people and logistics. for this ambitious goal.

Recently, the US Space and Space Administration decided to 'pump money' to fund two research projects at the University of Arizona, related to how people can produce and access necessities. needed as food and water right on the lunar environment to cater to long-term research projects without the need for constant supplies from the earth.

Use small satellites to detect water on the moon

Access to water on the moon will be extremely beneficial, both for drinking as well as creating rocket fuel. Scientists believe that there may be ice in craters in the Antarctic region of the moon, but locating these water sources is a major challenge.

The proposed idea is to use small, disposable satellites, called FemtoSats, to search for water on the moon. These satellites possess a size that can be placed in the palm of their hand, and are equipped with a powerful laser system. They can travel quickly to different locations on the moon to hunt for water and communicate with the lander via laser.



The low-cost, mobile FemtoSats satellite is the perfect way to explore strange and dangerous areas on the moon.

Growing greens in a zero-gravity environment

Fresh food is important not only for the astronauts' physical health but also for their mental health. However, working outside the earth, access to fresh food is almost impossible. To solve this problem, scientists are developing a modern closed farming system, which can provide water and nutrients for plants to grow in low / zero gravity environments, because Keeping the water balance, nutrients in the roots and maintaining the amount of oxygen needed by the plants are key.



The system is designed based on the modern agricultural solutions that have been introduced as Vegetable Production System (VEGGIE) - each 'garden' will be the size of a suitcase, containing about 6 vegetables, each The plants will be planted and rooted on a special clay and fertilizer mixture so that they can grow normally.

It is still too early to talk about the success of these 2 projects. But it shows NASA's great ambition and determination in its mission to conquer the moon.

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