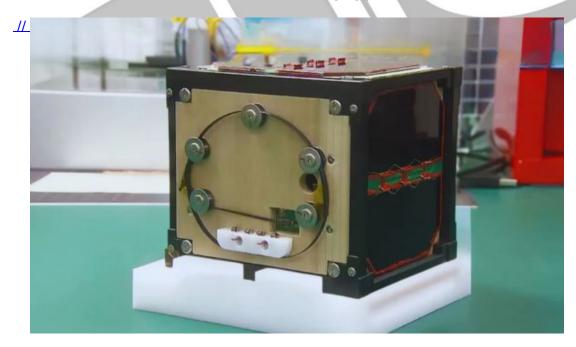


LignoSat

Source: IE

The world's **first wood-panelled satellite**, **LignoSat**, was launched to test the **viability of** timber as a sustainable building material for future space missions.

- LignoSat, developed by Kyoto University and Sumitomo Forestry of Japan, is made with wooden panels crafted from a magnolia tree using traditional Japanese techniques, without screws or glue.
 - It incorporates traditional aluminium structures and electronics, with wood serving as a casing material.
 - The satellite aims to test wood's durability in extreme space conditions (temperatures ranging from -100°C to 100°C) and its ability to shield semiconductors from space radiation.
- Researchers believe wood could replace some metals in space exploration, drawing parallels to early 1900s wooden aeroplanes.
 - Conventional satellites made of aluminium can damage the <u>ozone layer</u> when they <u>burn</u> up in the atmosphere. The growing number of satellites, including mega-constellations, raises concerns about space pollution.
 - LignoSat, made of magnolia instead of aluminium, may have an advantage as it wouldn't introduce damaging pollutants when it falls back to Earth.



Read more: Outer Space: Innovation, Security, and Sustainability

