

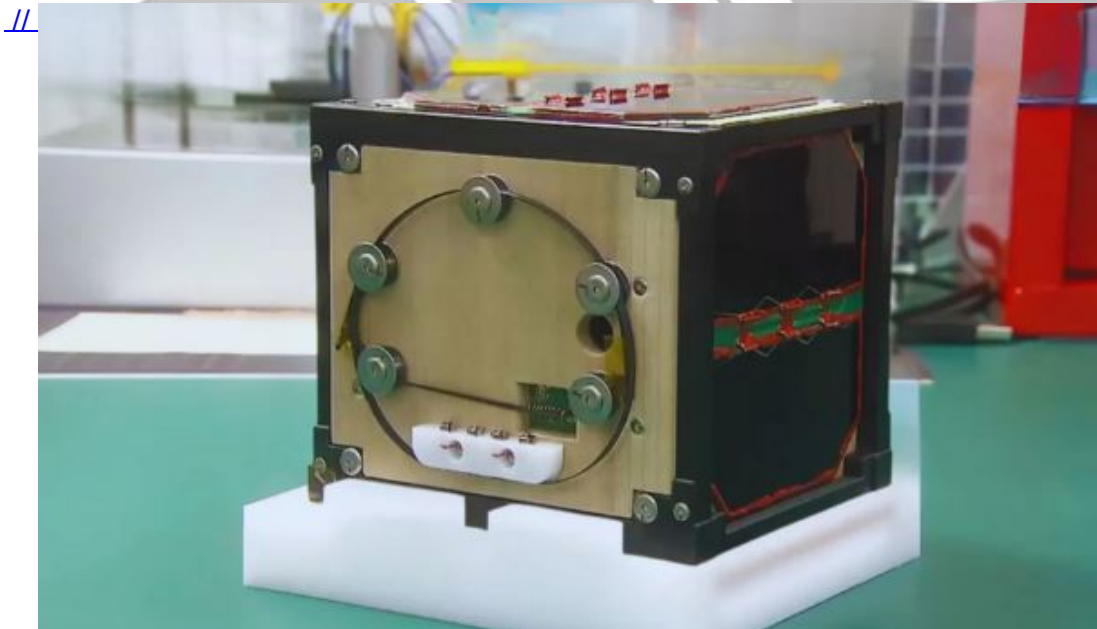


LignoSat

[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 **case 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 **ozone layer** when they **burn 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](#)

