# Japan To Launch World's First Wooden Satellite To Combat Space Pollution

# Why In The News?

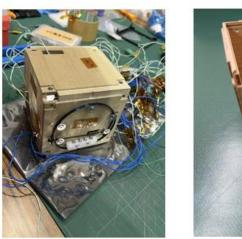
- Japan And The US Are Planning To Launch The World's First Wooden Satellite, The LignoSat Probe, Into Space This Summer. This Unusual Spacecraft Is Made Up Of Magnolia Wood Which, During The Experiments, Was Found To Be Particularly Stable And Resistant To Cracking.
- The Wooden Satellite Was Created By Japanese Scientists And Now The US Has Become A Part Of Their Mission As They Finalized The Satellite To Be Launched On A US Rocket.



### Why Was There A Need?

- In A Pioneering Effort To Address The Growing Issue Of Space Debris, The Researchers At Kyoto University In Collaboration With The Logging Company Sumitomo Forestry Built The Timber Satellite. They Came Up With The Idea Of Using An Alternative To Metal, Which Are Biodegradable Material.
- To Tackle The Problem, Kyoto Researchers Set Up A Project To Evaluate Types Of Wood To Determine How Well They Could **Withstand The Rigours Of Space** Launches And Lengthy Flights In Orbit Around The Earth.
- The First Tests Were Carried Out In Laboratories That Recreated Conditions In Space, And Wood Samples Were Found To Have Suffered No Measurable Changes In Mass Or Signs Of Decomposition Or Damage.

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# Why Is It Significant?

- This Will Re-ignite The Hope That Even After The Extinction Of Nonbiodegradable Materials, The Satellite And Other Things Can Work.
- Recently, Researchers At The University Of British Columbia, Canada, Revealed That Aluminum From Re-entering Satellites Could Cause Serious Depletion Of The Ozone Layer Which Protects The Earth From The Sun's Ultraviolet Radiation And Could Also Affect The Amount Of Sunlight That Travels Through The Atmosphere And Reaches The Ground.
- However, This Should Not Be A Problem With Satellites Built Of Wood, Like LignoSat, Which, When It Burns Up As It Re-enters The Atmosphere After Completing Its Mission, Will Produce Only A Fine Spray Of Biodegradable Ash.

