

Elasticopter

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In news : The researchers at IIIT Hyderabad designed the working prototype of Elasticopter drone with flexible feature

What is Elasticopter?

- It is an unmanned aerial vehicle (UAV) with adjustable arms, making it able to lift packages of different sizes and shapes
- Elasticopter is a re-configurable drone design that can adjust its size to match the package's size.

Who designed it?

- Elasticopter', a patent-pending design developed by 24-year-old Suraj Bonagiri, is considered a big breakthrough in drone technology.
- He is a researcher of the Robotics Research Center (RRC) at the International Institute of Information Technology (IIIT-H) in Hyderabad
- The innovation is now pre-incubated at Product Labs of IIIT-H which works with industry partners to develop market-relevant prototypes from research outputs

Key features of Elasticopter drone

The journey from a novel design to a working prototype of a reconfigurable quadcopter emerged from the limitations of existing delivery drones which focus only on the weight of packages to be lifted while ignoring the size. Following are its key features

- This prototype is a rectangular-shaped drone with four propellers and a flexible chassis (that expands and collapses) that does not cause mid-air turbulence despite its adjustments.
- According to Suraj, in his design, there is zero prop

wash interference with the payload no matter its size. In this method of attachment to cargo, the mass is always centered and leads to optimal battery performance

- The Elasticopter is not only able to move in any direction and be able to hold packages of any size, but it is also able to expand and contract to hold the payload and ensure stability while flying