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Special delivery

Orbiting roughly 400km (250 miles) above Earth, astronauts aboard the International Space Station (ISS) can't exactly get online shopping delivered within 24 hours. The resupply procedure is more complicated than that and involves an expendable spacecraft called the Cygnus.

An uncrewed cargo ship, the Cygnus – seen here attached to the ISS's Canadian-made robotic arm – is designed to deliver supplies, equipment and even experiments to the astronauts on the ISS. The current model can't bring items back to Earth, but once it has dropped off its cargo, it can be filled with waste and debris, before burning up entirely as it re-enters the planet's atmosphere.

But Cygnus is more than just a glorified delivery van. It's made up of three sections. Two large solar arrays sit on either side, collecting the power needed to get it to the ISS. In the middle, stacked on top of each other, sit the pressurised cargo and service modules, which contain the supplies it's carrying and the spacecraft's control systems.

Currently made by the aerospace company Northrop Grumman, a new, bigger model of the Cygnus is expected to launch next year.

NASA/JPL

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