

Drone Delivery



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Description

Delivery logistics providers such as Zipline, Amazon, DHL, and UPS have trialed using drone technology to deliver goods. This is typically done by flying a drone from a warehouse to an open area near the destination, where a courier can take the package the final stretch to the consumer's doorstep.

Examples

In June 2016, the FAA released regulations around commercial and recreational drone use (Part 107). Under these laws commercial drone use is limited to daytime flights with line of sight, below 400ft, less than 55lbs, at a speed under 100mph and in authorized airspace. Other countries that are beginning to define their regulations include China, Iceland, and the EU.

While the regulations and drone hardware has begun to catch up, the industry that is leading the use of commercial drones is aerial photography. The competitive advantage of using drones is the ability to get access to difficult camera angles much more affordably than in the past.

Drone hardware for delivery of consumer goods is approaching feasibility yet the infrastructure is not developed as logistics companies are still in the process of trialing consumer deliveries.

Amazon has filed patents for aerial warehouses, and AHA in Iceland utilize drones to get products closer to end consumers where the last mile is still fulfilled by a human courier.

Zipline delivers medical supplies up to 50 miles away and was initially rolled out in Rwanda but is now being tested in California for deployment in the USA. The system involves a fleet of drones, a launching track and a pair of towers to catch the returning drones. The packages are delivered via a parachute drop from the drone.

What's next

Drones will become part of logistics supply chains for specific use cases where timeliness and lightweight deliveries are essential, but it is unlikely to become an end-to-end solution that delivers products to the end consumers' door/window.

Legislation and infrastructure requirements for delivery will limit the ability for drone deliveries to be

entirely self-service, instead drone delivery will help specific items avoid limitations that traditional delivery logistics find unprofitable, such as a limited volume routes and short distance routes. Drone delivery will be best suited to lightweight, high-value items that can be delivered to a centralized location.

Tags

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drones

logistic

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