

Zipline Fact Sheet

About Zipline

Zipline was founded to create the first logistics system that serves all humans equally. We design, manufacture and operate the world's largest instant logistics and delivery system that is used by businesses, governments and consumers. Zipline is transforming the way goods move, from powering Rwanda's national blood delivery network and Ghana's COVID-19 vaccine distribution, to providing on-demand home delivery for e-commerce, to enabling healthcare providers to bring care directly to U.S. homes. The technology is complex, and includes autonomous, electric drones, but the idea is simple: a teleportation service that delivers what you need, when you need it. By transitioning to clean, electric, instant logistics, we can decarbonize delivery, decrease road congestion, and reduce fossil fuel consumption and air pollution, while providing equitable access for billions of people.

Zipline operates on three continents (North America, Africa and Asia) and in seven countries - Rwanda, Ghana, the U.S., Nigeria, Japan, Kenya and Côte D'Ivoire.

Zipline has made more than 540,000 deliveries to real customers, and currently completes one every 90 seconds. Zipline has flown 40 million autonomous commercial miles, delivered almost 5 million products (including more than 8 million vaccine doses).

Zipline has two delivery platforms - a long-range system, Platform 1, and its next-generation home delivery system, Platform 2. Our drones are what people see,

but they are only a small percentage of what we do. Behind each delivery is a complex network of airspace deconfliction tools, inventory management, fulfillment software, warehousing, performance management, cold chain storage, and more. Zipline's instant logistics system is a trusted partner for businesses, governments and consumers, and currently supports the medical, health and retail sectors, delivering blood, vaccines, COVID supplies, prescriptions, e-commerce items, products that support human and animal health, and food.

Zipline works with Walmart, Pfizer, Toyota Tsusho, Sweetgreen, NGOs, large health systems, large national governments around the world, and more.

IMPACT

Three studies published in 2022 highlight the health impact of Zipline's service:

- The first, published in *The Lancet*, showed that Zipline's service resulted in a 67% reduction in blood wastage across Rwanda, contributing to greater access to this life-saving product.
- The second, which was funded by the Bill & Melinda Gates Foundation, found that Zipline is increasing health access and equity across the health system in several ways, including that vaccine stockouts are 60% shorter at Zipline-served facilities than non-Zipline facilities.
- A third [study, published by researchers at Wharton](#), found "evidence of improved blood inventory management and improved health outcomes as a result of drone delivery" provided by Zipline. Specifically the report found:
 - A reduction in Rwanda of in-hospital maternal deaths due to postpartum hemorrhage (PPH) of 88% as a result of Zipline's logistics and delivery system. The report states: "a back of the envelope calculation that considers the number of deliveries per year and the annual incidence of PPH in maternal mortality implies that approximately 43 to 157 deaths are averted per year among Rwandan mothers."
 - Transfusing facilities decreased on-hand inventory by 62% and reduced the number of units destroyed or damaged by 42% which "points to more effective and efficient utilization of blood products."

FAST FACTS

- Zipline serves more than 3,400 health centers, and more than 45 million people.
- Zipline delivers 75% of Rwanda's blood supply outside the country's capital city.
- Zipline has completed more than 540,000 commercial deliveries — more than most other companies in the sector combined.
- Zipline completed more deliveries in 2022 than in all previous years combined, and is planning to complete about 1 million deliveries by the end of 2023.
- By 2025, Zipline expects to operate more flights annually than almost all major U.S. airlines.

- Zipline flights reduce the carbon emissions of deliveries by 97% compared to gas cars, and are also far more efficient than electric vehicles.
- Zipline hires entirely local leaders and teams in every market it serves.
- Zipline was founded in 2014 and began drone delivery operations in Rwanda in 2016.
- Zipline operates on three continents and in Rwanda, Ghana, the U.S., Japan, Nigeria, Kenya, and Côte d'Ivoire.
 - Today in the U.S., Zipline designs, tests and manufactures its Zips in California, and serves customers in Arkansas, Utah and North Carolina. In 2024, Zipline will also operate in Michigan and Washington, and additional U.S. states will be announced soon.
- In 2022, Zipline became the first company to receive FAA Part 135 approval for long range drone delivery in the U.S., a major step toward scaling domestically.
- The FAA recently authorized Zipline to enable its autonomous Detect and Avoid (DAA) technology, which is our autonomous airspace deconfliction tool, which is a key step in the path towards long range drone deliveries in the U.S. without visual observers. Zipline will soon be turning on its DAA system in the U.S., and expects that it will begin beyond line of sight flights in the U.S. later this year.

Platform 1 and Platform 2



	Platform 1	Platform 2
Delivery Focus	Enterprise, business and government	Home delivery
Payload	4 pounds	6 - 8 pounds
Service range	120+ miles roundtrip	10 miles service radius, or 24 miles one way
Cruise speed	60 miles per hour	70 miles per hour
Delivery area	About two parking spaces	Areas as small as a patio table or the front steps of a home.
Loading system	Orders packed by Zipline staff at distribution hubs	Easy-to-use loading portals to send orders
Delivery mechanism	Parachute-controlled floating delivery from 60 - 80 feet above ground level	Droid-in-drone tethered delivery from more than 300 feet above ground level
Integration	Hub-and-spoke model via stand alone hubs	Hub-and-spoke model or long distance with dock-to-dock network charging

About Platform 2

- Zipline’s next generation platform can deliver up to 7x as fast as traditional automobile delivery and can complete 10 mile deliveries in about 10 minutes.
 - Each next generation Zip has a 10 mile service radius while carrying a 6-8 pound payload, and can fly up to 24 miles one way.
 - Each P2 Zip can carry a 6-8 pound payload; capacity depends on a range of factors, such as wind and weather.
 - Each next-generation Zip, with its payload, weighs less than 55 pounds.
 - P2 will hover at more than 300 feet while its Droid will descend to the ground to deliver a package.
 - P2 can precisely deliver in any open space that has a radius of just under 2 feet.
 - P2 is expected to be capable of handling the vast majority of home deliveries in the U.S. annually in the food, healthcare, and convenience sectors.
 - P2’s loading portal enables each Zip to be loaded in seconds.
 - Each P2 Zip will come with Zipline’s Detect and Avoid (DAA) technology, the company’s autonomous airspace deconfliction tool, which
- Zipline recently received approval to enable in the U.S., a key step in the path towards long range drone deliveries in the U.S. without visual observers.
- In 2023, Zipline will conduct high volume flight tests for P2, and plans to do more than 10,000 test flights using about 100 P2 aircraft. The company will deploy its first customer pilot shortly after that BY early next year.
 - Zips can automatically redistribute themselves from dock to dock, Zipline can dynamically respond to peak order times – ensuring there’s enough delivery capacity for an urgent prescription delivery or a busy Friday pizza night or weekday lunch rush.

Safety at Zipline

Safety is our top priority at Zipline, and our solution safely serves millions of people each day on three continents. Each part of our system and aircraft is designed with safety in mind. Preflight inspections, redundant systems, and real-time monitoring by our operations team provide three layers of redundancy that enhance the safety of our flights and service.

Each part of the aircraft is examined and undergoes more than 500 safety checks before each flight. Zipline's flight critical systems operate with full redundancy; if one were to go out, the backup would activate automatically. Although Zips fly autonomously, our professional flight operations teams closely track and monitor each flight through our custom-developed monitoring system. Weather and air traffic are also monitored by our trained aviation professionals to ensure safety of the flight.

As an ultimate fail-safe, in the unlikely event that one of our drones needs to land quickly, perhaps because of a sudden weather event, we've built a unique, additional layer of protection: our Parachute Landing System that enables Zips to return to the ground safely. If our operators, or the computers onboard a Zip, determine the best course of action is to remove the drone from the airspace, a whole-aircraft parachute is deployed, which allows the drone to land gently and safely. The unique build and design of our aircrafts minimizes damage to anything on the ground.