ZIPLINE ANNOUNCES WORLD'S FIRST DRONE DELIVERY SERVICE

WILL DELIVER LIFESAVING MEDICINE
TO PREVIOUSLY UNREACHABLE PARTS OF THE WORLD

Government of Rwanda First Country to Partner With Zipline

More Country Partnerships On The Way

SAN FRANCISCO, CA Monday, April 4th—Today, Zipline, a California-based robotics company, unveiled the world's first drone delivery service that will operate at a national scale. The company is partnering with governments to make on-demand deliveries of life-saving medicine to previously unreachable parts of the world. Zipline uses a fleet of autonomous electric airplanes for its deliveries. Each airplane weighs 10 kg, can carry 1.5 kg of medicine, and can fly more than 120 kilometers round trip on a single battery charge, even in wind and rain.

The Challenge

According to the WHO, more than 6.3 million children under the age of five die every year due to conditions that could be prevented or treated with access to simple, affordable medical interventions. In the developing world, access to these interventions is hampered by what is known as the last-mile problem: the inability to deliver needed medicine from a city to rural or remote locations due to lack of adequate transportation, communication and supply chain infrastructure.

Remote health centers often only receive deliveries every three to six months across many countries in Africa. As a result of infrequent deliveries, the in-stock rates for critical medicine at these health centers usually hover between 60 and 75%. This means that if a parent brought a child dying from malaria into a health center, there is up to a 40% chance the child could not get access to a basic medicine such as antimalarials. Those numbers only reflect the medicines that are chosen to be stocked at these health centers. Many drugs that have to be refrigerated (insulin, vaccines, etc.) can only be sent to health centers that have reliable refrigerators. Many "long-tail" lifesaving medicines, such as rabies prophylaxis and antivenin, are not kept in stock because there is no way to accurately predict demand ahead of time. Approximately 24,000 people die annually across the continent of rabies alone.

> *"The inability to deliver life saving medicines to the people who need them the most causes millions of preventable deaths each year. Zipline will help solve that problems once and for all," said Zipline CEO Keller Rinaudo. "We've built an instant delivery system for the world, allowing medicines and other products to be delivered on-demand and at low-cost, anywhere."*

The Solution

Working directly with national governments, Zipline will enable public health agencies to make rapid, on-demand, cross-country deliveries of lifesaving medicines and overcome infrastructure deficiencies like impassible or non-existent roads. Right now, many remote health centers across the world only receive deliveries twice a year. Zipline will make it possible for these same facilities to receive deliveries twice a day. Zipline's service will allow healthcare systems to solve stock outs, improve access to long-tail medicine, and respond to emergencies in real time, all of which can save millions of lives.

The Airplane

Almost all previous attempts to explore drone deliveries have used off-the-shelf, hobbyist quadcopters. These vehicles have extremely limited flight ranges, often fail or crash unpredictably, and can only operate in perfect weather.

Zipline's team—which includes seasoned aerospace veterans who previously worked at companies and organizations like SpaceX, Google, Boeing, and NASA—has designed and manufactured a custom-built airplane named Zip.

Each Zip weighs approximately 10 kilograms, flies autonomously, can carry 1.5 kilograms of medicine and can reach distances over 120 kilometers round trip on a single battery charge. Zips operate from bases called Nests, which are made from modified shipping containers and located next to existing medical warehouses.

Each Nest is comprised of 15 autonomous Zips that are capable of fulfilling country-wide medical delivery requests in under an hour. Zips take off and land at the Nest, and make deliveries by descending close to the ground and air dropping their medicine to a designated spot called a "mailbox" near the health centers they serve.

Rwanda Deployment

While other companies exploring drone deliveries are navigating how to work around local, state and federal government regulation, Zipline is signing agreements directly with national governments to operate on a country-wide basis. Zipline is launching its first large-scale deployment in partnership with the Government of Rwanda, where it will make all last-mile blood deliveries across the country.

According to the WHO, Africa has the highest rate in the world of maternal death due to postpartum hemorrhaging. Increasing access to lifesaving blood transfusions is critically important for women across the continent. Beginning this year, Zipline will make between 50-150 deliveries per day of life-saving blood to Rwanda's 21 transfusing facilities located in the Western half of the country.

Zipline plans to expand the project to the Eastern half of the country in early 2017, putting almost every one of Rwanda's 11 million citizens within reach of instant delivery of essential and lifesaving medicines. Zipline's Rwanda operation is expected to save thousands of lives over

the next three years. Through this effort, Rwanda has leapfrogged countries like the United States and is leading the world in using cutting-edge technology to deliver healthcare to its citizens.

Zipline's Rwanda operation will be run by a combination of Rwandan and American engineers from a base in the country's centrally located Muhanga District. Zipline will begin making its first deliveries in July of 2016. Through the remainder of the year, the company plans to expand operations to countries across Africa and the world, moving beyond blood delivery to include lifesaving vaccines, treatments for HIV/AIDS, malaria, tuberculosis, and many other essential and lifesaving medicines.

> *"In an era of global health perils, we need to let our imaginations soar when looking for ways to get quality medical products to those in greatest need," said Dr. Margaret Chan, Director General of the World Health Organization. "This visionary project in Rwanda has the potential to revolutionize public health and it's life-saving potential is vast."*

About Zipline

Zipline is a robotics company based in California. The company works with governments to make efficient and rapid deliveries of medical products to the last mile. Zipline's long-term mission is to build instant delivery for the planet, allowing medicines and other products to be delivered on demand and at low cost without using a drop of gasoline. Zipline is supported by some of the smartest investors in the world, including: Sequoia Capital, Google Ventures, SV Angel, Subtraction Capital, Yahoo founder Jerry Yang, Microsoft co-founder Paul Allen, and Stanford University.