

How a drone from a Tampa Walmart makes deliveries

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Credit: Pixabay/CC0 Public Domain

On the edge of Tampa, bordering Pasco County, Matthew Credle prepared a drone to make deliveries from a Walmart parking lot by air.

Wind gusts? Check. Motors? Check. Battery power? Check. Pilots have the necessary licenses with them? Check.

Credle, the 30-year-old Tampa DroneUp hub leader, didn't know when the first request for a [drone](#) delivery of the day would come in, but he spent the morning with his team calibrating systems to ensure they were ready.

It's part of Walmart's growing [pilot program](#) for drone delivery, which began testing late last year in Central Florida. The Arkansas-based retail giant's program, in partnership with Virginia Beach-based company DroneUp, expanded to 36 stores nationwide with nine in Florida. That includes the Tampa location on 19910 Bruce B. Downs Blvd.

The Tampa store is starting small; they have one drone and deliver within a one-mile radius, which serves approximately 100 households, and have made about four or five deliveries a day. There are 8 parking spaces coned off for their hub and landing area.

"Our drones fly autonomously," Credle said. "It's little human input but we have a software that if we want to drop off at a certain point, it will avoid populated areas, moving cars, or mitigate risk and figuring out what the safest route to the destination is."

Lately, the drone team staff spend most of their time talking to curious shoppers leaving the store and wondering what the buzz is about.

Deliveries by drone must be under 10 pounds, due to Federal Aviation Administration guidelines, and can reach customers within 30 minutes. Credle said most packages are delivered within 22 minutes.

In a [test flight](#), Credle and his team of four FAA-certified drone pilots worked together as the drone went up 50 feet in the air, buzzing loudly.

The flight controller tilted it forward, back and side to side making sure each wing was functioning.

The drone stands at 1.5-feet tall with a wingspan of five feet. It can fly up to 300 feet in the air and has two batteries on top which last about 20 minutes each, Credle said. The drone also has a camera attached to act as an eye in the sky, so pilots can watch for any obstacles in the air. He added it doesn't record to ensure privacy.

But even with a camera, the hub always has to have someone in eyesight of the drone when it's in the sky.

When a customer requests a delivery, a drone hub employee retrieves the products from the store. A DroneUp pilot will drive the hub's van to the delivery location. Once the products are packed into a box and attached to the drone's cable, a pilot using a remote control lifts the drone into the air and coordinates with the other pilot at the delivery site. When both pilots have the drone in their line of sight, the hub pilot hands off control to the delivery-site pilot.

Credle said this process is just one of the many FAA guidelines they have to follow. But if and when the FAA allows Walmart to fly drones without direct supervision, the program could expand to 10 miles. If the drone program expands to 4,700 stores, then it could serve about 90% of the U.S. population within those expanded parameters, according to Walmart.

In a delivery simulation at the Tampa Walmart, the drone flew up and around the store because its sensors and map data detected a large population in the vicinity, before hovering and waiting to make sure a truck driving through wouldn't get in the way.

When it was clear, the drone dropped its cable with the box attached,

and at about 10 feet it slowed before gently landing on the pavement.

Retailers have long considered drone delivery as a key investment in the future of shopping. Walmart competitor Amazon first announced it was working on drones a decade ago but it was only last December that Amazon Prime Air began operating in two cities in California and Texas.

Walmart began experimenting with drones during the pandemic near its headquarters in Bentonville, Ark., delivering COVID-19 self-testing kits. Walmart announced a year ago that it was expanding to six states—Florida, Texas, Arizona, Utah, Virginia and North Carolina—including Tampa Bay stores in stores Tampa, New Port Richey, Valrico, Brandon, Seffner and Riverview.

The Bruce B. Downs store manager Arnetta Hill said nearby residents have already taken interest in being among the first to test drone deliveries.

"It's already brought a lot of excitement. It's really thrilling to see this kind of new technology on a Walmart parking lot," said Hill, 53. "I love the fact that they're out here testing it for the associates and all the customers to see it."

Hill said if the program expands, the blocked-off parking lot setup would be temporary. Walmart could construct a more permanent tower for its drone hub.

It's hard to know if drone [delivery](#) will be more than just a fad for consumers. For Credle, he thinks the Tampa program has been an opportunity to teach consumers about the convenience of it.

"We get the shock value, we get the wows and stuff like that, but

[residents] really started to understand the benefit that it has for the community, even businesses, or different populations of people," he said.

The drone program so far has had just a handful of repeat customers, Credle said. Some who are seniors who have difficulty traveling or single parents that don't have time to go back to the store for small purchases. There's a \$3.99 fee attached to every [drone delivery](#).

"People are ordering these things that might seem minuscule to us, but to them, it'll make a big difference," Credle said. "And it'll help them."

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