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Delivery Robots Aren't Ready— When They Could Be Needed Most

Sheltering in place has driven up demand for deliveries, but machines still have trouble confronting the unpredictability of the real world.



Nuro's toaster-like bots were designed to deliver groceries but now are transporting medical supplies at temporary hospitals. COURTESY OF NURO

AMERICANS CHOOSING TO —or forced to—stay inside during the Covid-19 pandemic are leaning heavily on food delivery. Instacart sales soared 98 percent, and Amazon Fresh sales 68 percent, in March, compared with February, according to the consumer analytics firm Second Measure.

Restaurants that can't open their doors are tapping delivery services to preserve some revenue. But many delivery workers say they don't feel safe. Workers for Instacart have said they lack the gloves, face masks, and disinfectant to do the job safely; others who have received equipment complain it's subpar. And restaurant owners chafe at the high commissions of app-based services like DoorDash, Postmates, and Uber Eats.

So it would appear to be the perfect time for the swarms of delivery robots funded by more than \$1 billion in venture capital in recent years. But it turns out that the tech isn't quite ready to always operate without human help, and it will need serious additional cash to get there. Some business models remain opaque. And robot makers must learn to navigate not just US streets, but the complex rules that govern their use.

Some robot makers are using the surge of interest during the pandemic to test and demonstrate their tech in new ways. Starship Technologies says it has launched its smallish, sidewalk-traversing delivery robots in five new places in the US since shelter-in-place orders hit, bringing its total number of deployments to 12.

Henry Harris-Burland, Starship's vice president of marketing, says his company already knows how to make money. Its 55-pound robots are built to run at slower speeds on sidewalks, carry about 20 pounds, and cost no more than a high-end laptop, he says. A robot needs to travel an area just once before it is sufficiently well-mapped to start service.

Starship typically strikes deals with local government officials, university campuses, or retailers before it enters a market, the company says. That may include taking a cut of each delivery. In Fairfax, Virginia, the 42-year-old Greek and Italian restaurant Havabite Eatery launched robot delivery with Starship in mid-April. Since then, the company has fulfilled five to 15 orders per day through the service. Like others who have partnered with Starship, restaurant owner Ida Beylee says customers are delighted by the robots. But she's not excited to pay Starship's fee, after a one-month free trial. "Twenty percent is big money," Beylee says, more than what she pays GrubHub for its delivery service. She doesn't think the Havabite can afford it, especially because it was not approved for a government-backed small business loan.



Starship Technologies's robots are designed to operate on sidewalks.

COURTESY OF STARSHIP TECHNOLOGIES

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