

## Watch for sidewalk delivery robots from Starship Technologies

November 4 2015, by Nancy Owano



Look who or rather what is carrying bags down a busy street. A little robot in the future might be spotted often making its rounds, thanks to Starship Technologies, a company launched by Skype co-founders. The company has announced local-delivery, 40-pound robots. These are self-driving machines. They are intended to be mostly useful for local neighborhood restaurants and retailers.



The robots could be able to make deliveries in 30 minutes or less. They were designed with local stores in mind and can only carry small loads.

*IEEE's Spectrum*'s Evan Ackerman said a Starship Technologies <u>robot</u> can carry the equivalent of two grocery bags (around 10 kilograms) up to 5 kilometers from a local hub or retail outlet.

If these take off then they would join drones in the mix of future talk about how we are to receive goods at our doorsteps. These robots are being promoted as small, safe, practical, free from CO2 emissions, "and best of all, earthbound."

The robots are equipped with cameras and sensors. The robot uses "integrated navigation and obstacle avoidance software," said the company, and can travel at the speed of four miles per hour. They are designed to move along on pavements and sidewalks, blending in with pedestrian traffic.

This is a 99 percent self-driving robot which in difficult situations is handled by a remote <u>distant</u> operator, speaking to pedestrians via speakers. The cargo bay is locked to prevent theft. By means of an app, a customer can follow the robot's progress and be given an alert when the <u>delivery</u> arrives. Only the app holder is able to unlock the cargo.

One of the interesting features about their product <u>announcement</u> is the accompanying business vision. "We want to do to local deliveries what Skype did to telecommunications." said Ahti Heinla, a Skype co-founder and CEO at Starship Technologies.

They believe their robots will be seen as a cost-cutting approach to delivery. They said that "costs of delivering goods will drop by an order of magnitude."



The target market is not as simply cut as a college kid calling in for an after-midnight pizza. "For businesses, Starship's technology eliminates the largest inefficiency in the delivery chain, the last mile. Instead of expensive and time-consuming door-to-door delivery, retailers can ship the goods in bulk to a local hub, then the robot fleet completes the delivery to the shopper's door for a fraction of the cost."

Robots can complete local deliveries within 5 to 30 minutes from a local hub or <u>retail outlet</u>, they said, for 10 to 15 times less than the cost of current last-mile delivery alternatives.

Ahti Heinla, CEO, said, "With ecommerce continuing to grow consumers expect to have more convenient options for delivery – but at a cost that suits them. The last few miles often amounts to the majority of the total delivery cost. Our robots are purposely designed using the technologies made affordable by mobile phones and tablets – it's fit for purpose, and allows for the cost savings to be passed on to the customer."





The company is testing and demonstrating prototypes. Next year, in cooperation with service partners in the US, UK and other countries, Starship Technologies plans to launch the first pilot services.

The idea is not so crazy, at least not to *IEEE Spectrum*. Said Ackerman: "we're optimistic about this because we've seen a lot of the necessary technologies already at work. Robots in general have a lot of practice at safe urban <u>navigation</u>."

He said that given enough time and adequate sensor data, they are



"excellent at dynamically avoiding obstacles."

Ackerman noted too that "if any of this stuff doesn't work, the robot can safely stop and wait indefinitely for a human to step in and help it out, with cameras and speakers and microphones allowing for full telepresence and remote control."

The company has offices in London and Tallinn, Estonia.

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