Amazon supermarket will roll out fancy new smart cart when it opens



Enlarge / Amazon has provided an educational video explaining how to use a grocery cart when it is also the register.

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Amazon is working to expand its grocery business—not Whole Foods, which already has more than 500 store locations, but its Amazon-branded line of register-free stores. While it's easy for a customer to carry a small bag of items around a convenience store like in the first Amazon Go, it's a lot harder to schlep around the volume of groceries one often buys at a regular supermarket. So Amazon is doing what Amazon does and is making the shopping cart itself an essential part of its high-tech retail experience.

The Amazon Dash cart will launch along with the company's Los Angeles supermarket later this year, the company said today. The smart cart requires a customer to log in to the cart using the Amazon app on their phone, then uses a system of cameras and sensors to take stock of what a shopper puts in the basket. It also has a touchscreen panel on the front handle, so consumers can purchase items that don't have barcodes, such as fresh produce. When a shopper is done with their grocery trip, they roll the cart out of the "dash lane," grab their now paid-for groceries, and saunter away.

Amazon's camera-heavy, cashier-free convenience stores first opened to the public in 2017. Earlier this year, the company followed suit with a slightly larger Amazon Go Grocery location in Seattle, which Ars' own Sam Machkovech tested to see exactly how accurate the panopticon supermarket setup is. (Spoiler: It's not completely foolproof, but it can identify if you try to steal a banana.)

The cart basically takes the technology behind the Amazon Go stores and makes it mobile, using "a combination of computer vision algorithms and sensor fusion" to ID and scan items as you place them inside the cart. "Our primary motivation for building this was to be able to save customers time," Amazon VP Dilip Kumar said. "The alternative solutions are standing in the express checkout lanes or fumbling through self-checkout stations."

The implication is that the stores in Amazon's impending full-size supermarket chain—there are five more locations planned after the as-yet unopened Los Angeles store—are simply too large to fill every square inch of the ceiling with cameras, as the smaller-footprint Amazon Go and Amazon Go Grocery stores are built. Instead, the cart-based shopping option basically works like the Scan-It app at use in traditional grocery retailers Giant and Stop & Shop, except built into the cart. Those systems, however, are far from flawless, and it seems as though the carts might also have some exploitable

errors.

Perhaps the biggest unanswered question Amazon has left hanging: are the carts smart enough to sense when they've been left in the middle of a parking space or at a bus stop, as seems to be the fate for most standard supermarket trolleys?

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