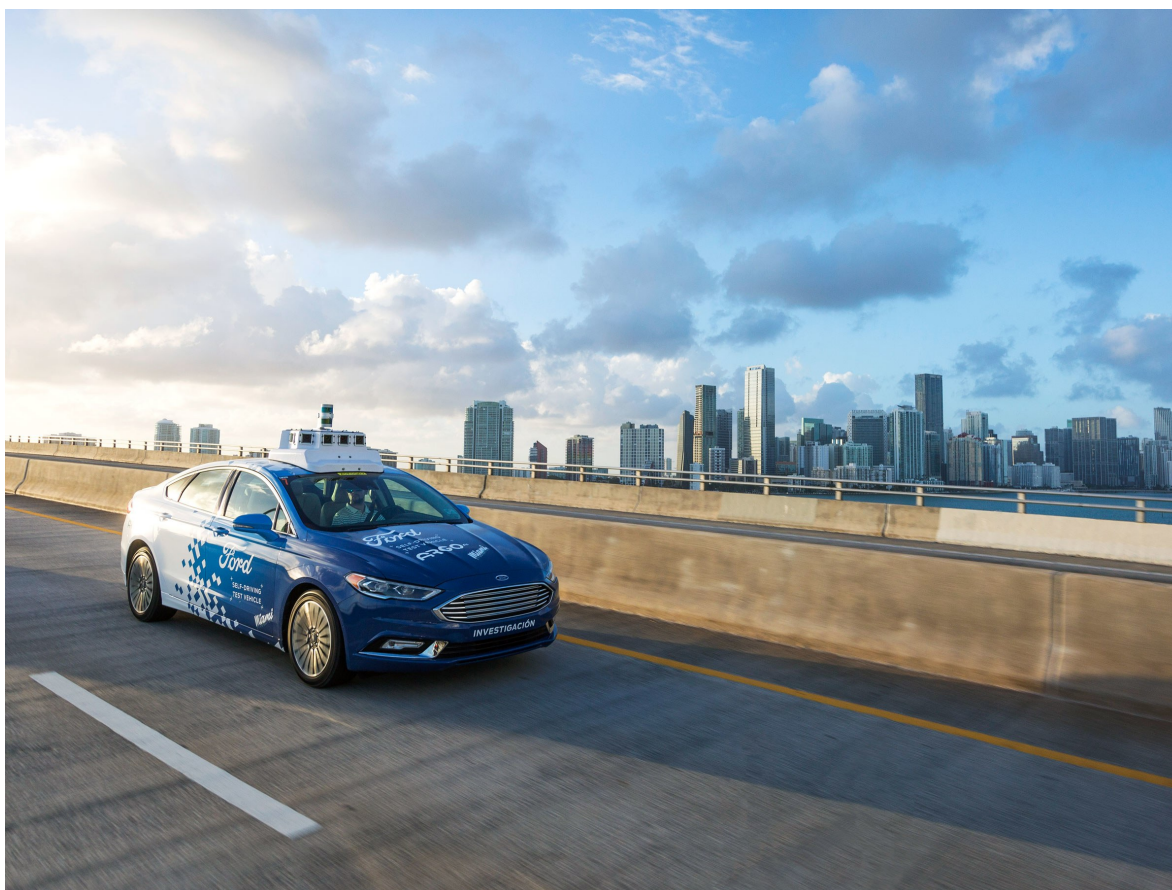




New

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FORD'S MIAMI SELF-DRIVING CARS WILL TACKLE THE TRICKY BITS



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IF YOU WORK on self-driving cars, the cocktail party question people always ask is probably: When will *I* get to interact with one? For two years now, [Ford Motor Company](#) has had an answer—in 2021. That year, Ford wants to launch a self-driving taxi service, and it wants to start making deliveries with driverless vehicles.

But before the Detroit automaker does any of that, it needs to figure out how to run a fleet. Which is why the company announced today that it will begin to test autonomous vehicles and build its first operations terminal in Miami, Florida. The focus there won't be on getting you from A to B. It will be on maintaining and operating the armada of robot delivery cars that get your stuff from A to, well, to you.

As part of partnerships with Domino's and the on-demand delivery company [Postmates](#), Ford will use its first few months in Miami to study how people interact with driverless deliveries, from the store stockroom to customers' front doors. How will employees know when to load your pizza into a driverless vehicle? Where will they put it—in the trunk? How will they know the car has all the pizzas it needs for a particular trip and is ready to start its delivery rounds? Are customers willing to walk out to a curb to meet their fresh pie? Or do they want a pizza delivery guy to come all the way to the door, the way it works now? How often will a driverless car need to return to a maintenance center for tweaking or gas? How often will the cars need to get the all-important sensors that help them "see" re-calibrated by humans? How many deliveries will happen before the car desperately needs pizza bits vacuumed from its nooks and crannies?

As Ford inches toward that 2021 target, it and other autonomous vehicle developers are getting serious about cracking the everything-but-the-tech logistics that make self-driving actually work. Ford can definitely put a car together, [Uber](#) can certainly pick you up and drop you off, and [Waymo](#), Google's self-driving sister company, can surely write complex software. But these big, big companies haven't mastered all the tasks performed by your

local car rental company, auto dealer, taxi dispatcher, car wash, or mechanic. SUBSCRIBE

Waymo, for one, has gotten help [from old-school car rental company Avis](#). The tech company is set to launch a [driverless taxi service in Phoenix this spring](#), so expect autonomous vehicles to head to Avis locations to get gassed or charged up, or receive routine service work—a deep cleaning, a tire change, a paint job retouch. Avis will also navigate the bureaucratic hurdles at the Department of Motor Vehicles. It has years of experience with stuff like that.

Today's announcement indicates that, for now, Ford will go at it alone, maintenance-wise. (In 2017, the company did [sink \\$1 billion into autonomous vehicle developing startup Argo AI](#), which will collaborate in the Miami testing effort. It also has a [partnership with ride-hailing company Lyft](#).) Ford's first autonomous vehicle maintenance facility will live in Wynwood, a hip, colorful neighborhood in downtown Miami where engineers and maintenance workers will fine-tune AV tech.



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While Ford cleaners wield vacuums and Ford mechanics wield spanners, Ford data mavens inside the Miami maintenance center will upload valuable numbers acquired by the self-driving cars—[challenging road scenarios](#), or how customers interact with their late night cheesy fry delivery—to the employees building the tech's hardware and software in Pittsburgh (where Argo AI is based) and Detroit.

In an interesting twist, some of that data won't be from self-driving cars. Ford will actually run two sets of "driverless"

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vehicles in Miami. One set will operate in autonomous mode (albeit with a safety driver behind the wheel), testing the tech's capabilities on Florida roads. The other will be faux-driverless cars, reserved for making deliveries to Floridians. Just as Ford did in a [Michigan experiment conducted last year](#), Miami's first year of "driverless" deliveries will actually be piloted to customers by a human being behind tinted glass, who will observe how customers collect their goods and be there to intervene if anything goes wrong (a marauding pizza burglar, for example).

After this year, though, the Ford cars testing in driverless mode and the ones actually making deliveries should become one and the same. And soon enough, the very same car delivering your groceries in the morning could deliver you to a bar at night. "In this early stage of AV technology, as far as the business is concerned, running the vehicle at really high utilization rate for most of the day is going to be key," says Jim Farley, Ford's president of global markets. That means moving goods, moving people, and moving both at the same time—after all, the business model has to allow the carmaker to recoup the self-driving-truckloads of money it's spending to develop the technology.

Ford says it will begin testing autonomous vehicles in another American city in 2018. In the meantime, execs say they're intrigued about the prospect of using traffic-choked Miami as a living, breathing testing ground for autonomous vehicle tech. (The roads analytics company [Inrix ranks the metro the 10th most congested on the globe.](#)) "We actually want to operate in some of the tougher areas that the technology will need to be developed for," says Sherif Marakby, Ford's VP of autonomous vehicles and electrification. Officials also like that Miami is home to plenty of businesses that deliver, and its population is already comfortable going online to order a new mop, or package of diapers, or, you know, a pizza.

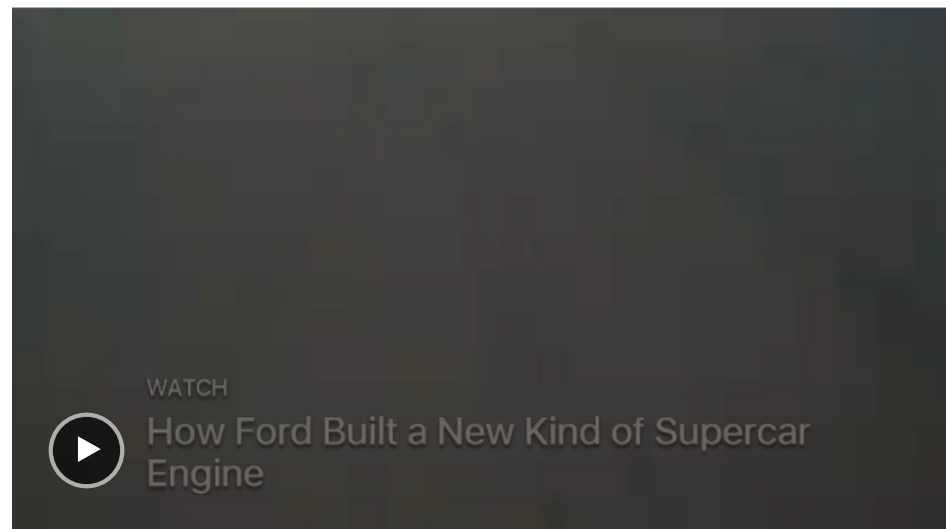
That the city's warm, mostly sunny weather [won't mess with self-driving sensors](#), and that Florida has some of the most permissive [self-driving car regulations](#) in the country, definitely doesn't hurt

either. Ford employees learning how to run a self-driving car service could do a lot worse. [SUBSCRIBE](#)

The Business of Self-Driving

- Feeling a little rusty on this whole autonomous vehicle thing? Get caught up with [WIRED's comprehensive guide](#) to self-driving cars
- Sure, self-driving car tech is moving fast. But now it hits the [hard part](#): dealing with tricky edge cases, and ironing out a viable business model
- Driverless cars use crazy amounts of power, and it's [becoming a problem](#)

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