GM says almost-driverless cars coming by 2020

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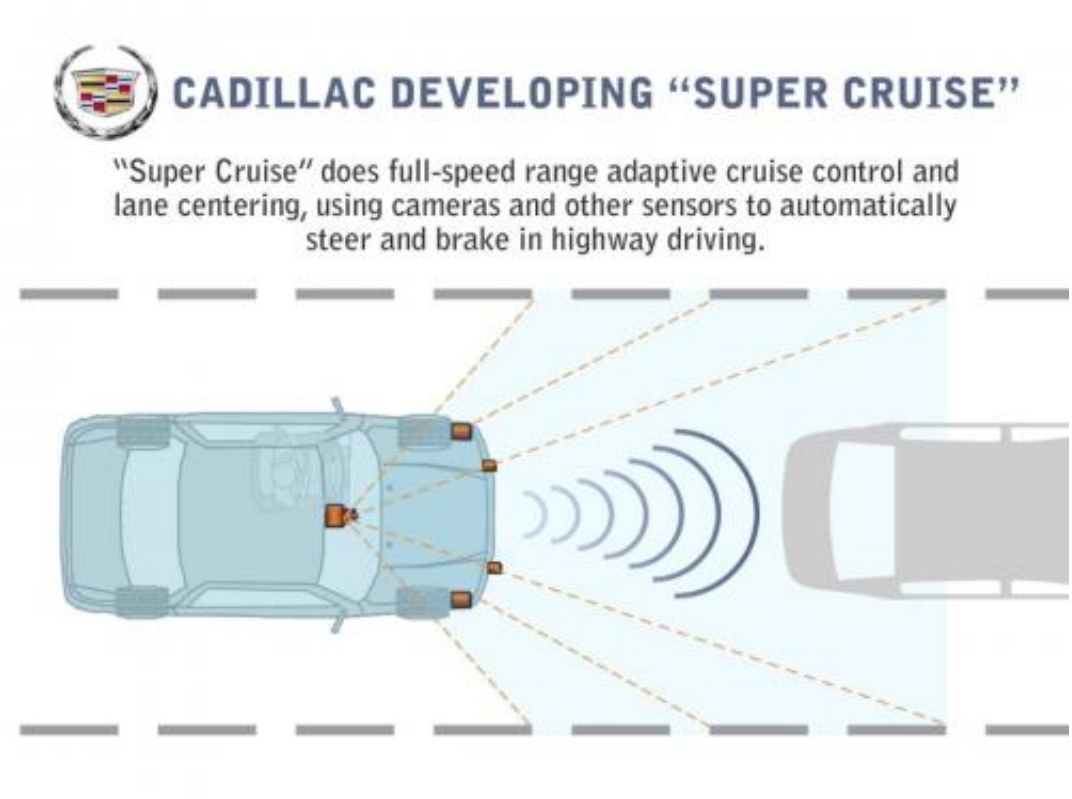

"Super Cruise"

Sometime before the end of this decade, General Motors will put a car on the road that can almost drive itself.

The automaker says the system, called "Super Cruise," uses radar and cameras to steer the car and keep it between lane lines. Also, the radar

keeps the car a safe distance from cars ahead of it, and it will brake to a complete stop if necessary.

GM and other automakers such as Mercedes, BMW and Lexus already offer radar-guided cruise control systems that keep their cars a safe distance from other vehicles and even stop before a crash. They also have systems that warn the driver if they're drifting out of their lane. But until recently, engineers haven't been able to steer with computers, according to GM.

"The steering control is the big additional piece," said John Capp, GM's director of electrical controls and active safety technology.

On Wednesday, engineers showed off the system for reporters at the company's testing grounds in Milford, Michigan, north of Detroit. The system adds control of electric power steering to off-the-shelf technology that's now available. Although they still have bugs to work out, a Cadillac SRX SUV equipped with the technology worked very well.

Capp says a lot of development work still needs to be done about road conditions, reaction of sensors, visibility of lane lines and how the system will interact with the driver, who still would be in control and can easily override the computer system. He says it's possible GM could sell the system well before the end of the decade. It would debut in Cadillacs, GM's luxury brand, but likely would spread to the rest of the company's lineup.

With the system, people will be able to take their hands off the wheel on a freeway and let the car do the work, he said.

GM is aware that the system could make drivers complacent, turning over control to the car even though the system isn't designed for that,

said Charles Green, an engineer who studies driver performance with the systems.

So before it gets to market, GM will have a feature that makes sure drivers are paying attention, he said.

"Super Cruise will be designed in a way to help you keep your visual attention on the road ahead," Green said, declining to say just how the system will do that. "The 'how' is something that will become more apparent as we show Super Cruise in its later versions."

Engineers say there are many obstacles to cars that completely drive themselves, including how they react to cars and trucks that don't have the technology. For those reasons, Capp says completely driverless cars are 20 to 30 years away.

The announcements come as automakers race to sell self-driving cars and the latest safety devices so they're seen as technology leaders.

GM's demonstration happened the same day as Honda said it was working on short-range communications technology that would let a car detect a pedestrian with a smartphone. The system could prevent car crashes by warning both the driver and the pedestrian. Honda also says it's working on a system that warns car and truck drivers about motorcycles, even if the driver's view of the motorcycle is obstructed by other vehicles. Both are still in the experimental stage.

On Tuesday, Nissan said it wants to make cars that drive themselves by 2020. The company is working on the system with several universities and has a proving ground for autonomous cars near its headquarters in Japan.