

Cruise aims to bring driverless tech to life in 2015

24 June 2014, by Nancy Owano



The old saying why reinvent the wheel will resonate with the coming debut of Cruise technology in certain cars on certain roads next year. The motivating question would be, Why wait to buy a totally driverless car when you can keep the car you have, but just add on a system that turns it into driverless mode in stop-and-go traffic on long commutes? Cruise has built a highway autopilot system, the RP-1-which can be fit into your existing vehicle, giving it driverless functions. The RP-1 is a highway autopilot which can control steering, throttle, and braking. This is not a full driverless car like the one Google has been working on but rather the Cruise team has provided driverless technologies designed to perform driverless functions such as keeping the car at a safe distance from the car in front of you and positioned in the center of its lane.

"Seven years ago, I worked on an autonomous vehicle project," said Cruise founder and CEO, Kyle Vogt, "and I was frustrated that the computation and sensing systems were too expensive, too bulky, and used too much power to install on a regular vehicle." The startup is getting ready to let cars roll with the RP-1, but its

preliminary debut will only be on select Audi vehicles—to install into any 2012 or newer Audi A4 or S4 and only on California Bay area highways where it has mapped the roads. Cruise can only be used on these specific California highways.

The startup on Monday began to take pre-orders for a 2015 installation; 50 Audi drivers will be allowed to sign up. Liz Gannes, a senior editor, Re/code, wrote that Re/code has been tracking Vogt's progress at Cruise over the past few months, taking multiple [rides](#) in the company's prototype vehicles. At one such test drive, she said, a Cruise-modified [car](#) "danced between cones, braked around a tight turn, and then accelerated on a straightaway."

The system works for a driver by using the cruise-control button; a click enables the RP-1 to take control of steering and speed. What is behind the technology? The RP-1 uses a combination of sensors, radar, cameras located on the roof of the car, actuators and central computer situated in the trunk of the car, which is the brain of the RP-1. Asked how the system can detect erratic drivers, the team's answer is that both the cameras and radar make sure there are no drivers out there on a collision course. "The radar allows us to determine the velocity and direction of any car around you to ensure there is enough distance for your car to come to a complete stop if there is ever a problem."

Like Google's self-driving car pioneers, Cruise founder Vogt shares a conviction that technology can help alleviate the serious damage experienced on the roads each year due to human error. "There are more than 5 million car accidents every year, he said, "that kill over 30,000 people and 90 percent of them are caused by the drivers, by us, and this is entirely preventable." Vogt added that "Every driver that uses our vehicle technology can bring us one step closer to stopping these unnecessary deaths."



He most likely had Californians in mind, if not drivers in other U.S. areas, when he told Re/code that "A third of the American workforce spends more than an hour a day commuting. It's boring and dangerous. Now that we have the [technology](#), it's almost our responsibility to do something with it."

Last year, Morgan Stanley analysts said [completely](#) autonomous cars will likely be available before the end of the decade. They said autonomous cars can contribute \$1.3 trillion in annual savings to the US economy, with global savings estimated at more than \$5.6 trillion. The savings were attributed to such factors as a decline in costs for fuel and accidents and productivity gains.

More information: www.getcruise.com/

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