

TECH TRANSPORTATION CARS



George Hotz is giving away the code behind his self-driving car project

by Sean O'Kane and Lauren Goode | Nov 30, 2016, 2:12pm EST

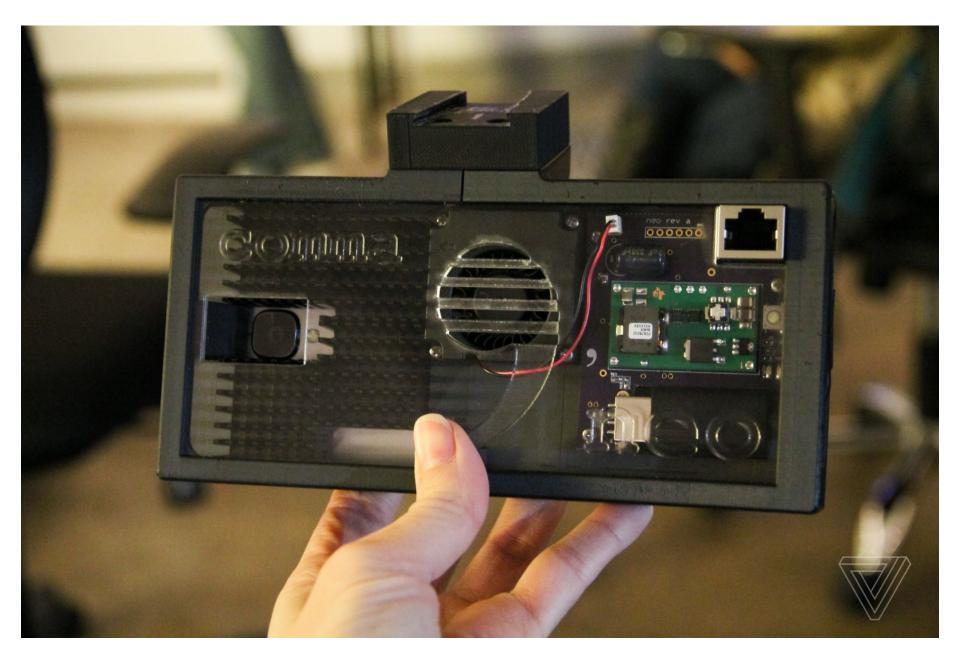
Famed iPhone and PlayStation cracker George Hotz is resurrecting the <u>DIY</u> <u>autonomous car project</u> he <u>canceled in October</u>. But this time, there's a twist: instead of selling a physical product, Hotz's Comma.ai is releasing the company's self-driving software, as well as the plans for the necessary hardware, which Hotz calls Comma Neo. All of this code will be available for free — in fact, it is already on Github.

Hotz framed the self-driving software, called Open Pilot, as an "open source alternative to [Tesla's] Autopilot" during a press event that was held in a San Francisco house that serves as Comma.ai's headquarters. He claimed that the Open Pilot and Comma Neo combination "provides almost all the same functionality as Autopilot 7," which is the second-most-recent version of Tesla's self-driving software.

People who want to tinker with Comma Neo and Open Pilot will need much more than the Github code, though. First, it only works with specific Hondas and Acuras. The Neo side of the project also requires a special OS (called NeOS), and the only Android phone that can run it is the OnePlus 3. Hotz says that this is because it's the only phone that's open enough (it's bootloader unlockable) and that has the specs (particularly the Snapdragon 820 processor) and cameras capable of running Comma.ai's software. They'll also need to 3D-print the Comma Neo housing.

"We're not shipping a product," Hotz said. "We're shipping alpha software really for research purposes only. We do not provide any guarantees."

Earlier this year, Hotz announced ambitions to create and sell a \$999 after-market kit called "Comma One" that could add semi-autonomous capabilities to Honda Civics and some Acura cars. Over the summer, Comma.ai demoed this tech to various outlets, including *The Verge*. Most were impressed by the idea, but were careful to point out apparent shortcomings, like how the system handled itself poorly in city driving situations.



The Comma Neo

Comma One faced increased scrutiny as Comma.ai got closer to releasing the product. In response, Hotz talked down some of the autonomous vehicle hype in a blog post, likening Comma One to the existing features like "lane keep assist" and saying that it "will not turn your car into an autonomous vehicle. It is an advanced driver assistance system." Hotz also stated that Comma One "does not remove any of the driver's responsibilities from the task of driving."

HOTZ SHUT DOWN THE PROJECT WHEN THE NHTSA STARTED ASKING QUESTIONS

One week later, the National Highway Traffic Safety Administration sent Comma.ai a letter regarding concern that Comma One "would put the safety of [Comma.ai's] customers and other road users at risk."

"We strongly encourage you to delay selling or deploying your product on the public roadways unless and until you can ensure it is safe," Paul A. Hemmersbaugh, NHTSA's chief counsel, wrote in the letter. Hemmersbaugh also took umbrage with Hotz's claim about driver responsibility, and subtly referenced the trend of Tesla customers pushing their cars' semi-autonomous features in unsafe ways as evidence. Hotz responded by canceling Comma One, tweeting that he'd "much rather spend my life building amazing tech than dealing with regulators and lawyers. It isn't worth it."

During today's press conference, Hotz said that Comma.ai decided to go open source in an effort to sidestep NHTSA as well as the California DMV, the latter of which he said showed up to his house on three separate occasions. "NHTSA only regulates physical products that are sold," Hotz said. "They do not regulate open source software, which is a whole lot more like speech." He went on to say that "if the US government doesn't like this [project], I'm sure there are plenty of countries that will."

Hotz compared Open Pilot to Android, and said that it's really aimed at "hobbyists and researchers and people who love" self-driving technology. "It's for people who want to push the future forward," he said. When asked how or if Comma.ai plans to make any money off of this project, Hotz responded: "How does anybody make money? Our goal is to basically own the network. We want to own the network of self driving cars that is out there."