Ford studies using drones to guide self-driving cars

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Drones launched from an autonomous vehicle could help guide it by mapping surrounding areas beyond what the car's sensors can detect, according to Ford company officials

Ford Motor Co. is studying a system to use drones to help guide self-driving vehicles, including on off-road adventures, company officials said.

Drones launched from an autonomous vehicle would help guide it by

mapping the surrounding area beyond what the car's sensors can detect. Vehicle passengers can control the drone using the car's infotainment or navigation system.

"At some point, people are going to want to take their autonomous vehicle into the woods or off road where the drone could guide them," said Alan Hall, spokesman for Ford's in house technology department.

Hall told AFP the drones also could prove useful in areas beyond the digital maps of urban and suburban areas and inter-city highways.

The idea for using drones came out of a "brainstorming" session of researchers and engineers working on Ford's autonomous vehicle, Hall said.

Tony Lockwood, Ford manager, virtual driver system, autonomous vehicle development, said, "Ultimately, customers benefit as we open ourselves to new ideas and advance mobility using emerging technologies."

Lockwood was granted a patent for the idea along with fellow Ford employee Joe Stanek.

Digital mapping key

Pieter Gillegot-Vergauwen, vice president of product management at the Map Production Unit of TomTom, the Amsterdam-based mapping company heavily involved in the development of self-driving cars, said digital mapping is one of keys to building autonomous vehicles.

"We've actually looked at using drones for guidance," he said during a visit to Detroit for a seminar sponsored by Microsoft.

Earlier this year, Ford, along with China-based maker of sophisticated drones DJI, held a competition for programmers to see if they could teach a drone to fly from and return to a moving vehicle.

The idea was to see if a drone could use its cameras to guide a vehicle into and out of a disaster area where communications and roads have been destroyed or disrupted, Hall said.

The plan was to create drone-to-vehicle communications using Ford Sync, the automaker's car-based wireless connection, or other similar systems as a means to inspect areas in an emergency.

Only one of the 10 participants actually succeeded, with a drone launched from a moving Ford F-150 pick-up truck which returned after completing the assigned task.

Similar technology uses cameras or infra-red systems to help vehicles see around blind corners or terrain where the mapping is incomplete, Hall noted.

"It was a really cool challenge."

Hall said Ford has joined forces with a team of researchers in the Silicon Valley Research Center in Palo Alto, California, working with the idea of find way drones could help autonomous vehicles solve future navigation problems.

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