

Volvo to demonstrate self-parking car at media event

Volvo Car Group has developed an ingenious concept for autonomous parking. The concept car, which will be demonstrated at a media event this week, finds and parks in a vacant space by itself, without the driver inside. The smart, driverless car also interacts safely and smoothly with other cars and pedestrians in the car park.



"Autonomous Parking is a concept technology that relieves the driver of the time-consuming task of finding a vacant parking space. The driver just drops the vehicle off at the entrance to the car park and picks it up in the same place later," said Thomas Broberg, senior safety advisor of the Volvo Car Group.

Vehicle 2 Infrastructure technology, in other words transmitters in the road infrastructure, informs the driver when the service is available. The driver uses a mobile phone application to activate Autonomous Parking and then walks away from the car.

The vehicle uses sensors to localise and navigate to a free parking space. The procedure is reversed when the driver comes back to pick up the car.

Combining autonomous driving with detection and auto brake for other objects makes it possible for the car to interact safely with other cars and pedestrians in the car park. Speed and braking are adapted for smooth integration in the parking environment.

"Our approach is based on the principle that autonomously driven cars must be able to move safely in environments with non-autonomous vehicles and unprotected road users," said Broberg.

Pioneering technologies

Volvo Car Group's aim is to gain leadership in the field of autonomous driving by moving beyond concepts and actually delivering pioneering technologies that will reach the customers. The Autonomous Parking concept is one of several development projects in this field.

Volvo Cars has also been the only participating car manufacturer in the SARTRE (Safe Road Trains for the Environment) project, which was successfully completed in 2012. The project involved seven European partners. It is the only one of its kind to focus on technology that can be implemented on conventional highways on which platooned traffic operates in a mixed environment with other road users.

The SARTRE platoon included a lead truck followed by four Volvos driven autonomously at speeds of up to 90km/h - in some cases with no more than a four-metre gap between the vehicles.

"The autonomous parking and platooning technologies are still being developed. However, we will take the first steps towards our leadership aim by introducing the first features with autonomous steering in the all-new Volvo XC90, which will be revealed at the end of 2014," concluded Broberg.

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