

Tobii Paves the Way for Use of Eye Tracking in Driver Safety

STOCKHOLM and WASHINGTON, Nov. 29, 2011—Tobii Technology today unveiled its new platform for drowsiness and distraction detection in driver safety systems. The platform, based on Tobii's advanced eye tracking technology, provides a reliable solution to enhance current driver safety systems and increase public safety on roadways.

“As the demands for more effective driver safety systems continue to increase globally, we are pleased to offer a platform that can be a game-changer for automakers that are driving innovation and seeking to offer the ultimate in safety and driver satisfaction,” said Henrik Eskilsson, chief executive officer of Tobii Technology. “Eyes are the best gauge of a person’s level of attention to the road, and our technology is unparalleled in the recognition of this critical driver condition.”

In Europe, road accidents cause 35,000 fatalities annually, as reported by Eurostat. Estimates indicate that about 25 percent of all fatal accidents are caused by driver fatigue. In the U.S., the annual number of fatalities in motor vehicle crashes is 41,000, and the number of people injured is as high as 2.5 million, according to the U.S. National Highway Traffic Safety Administration.

“Over the last few years, Tobii has focused on advancing its technology in order to provide automobile manufacturers with a robust and cost-efficient solution, allowing for a comprehensive driver safety system that integrates detection of the cognitive state of the driver,” said Nicolas Pezzarossa, general manager of Tobii Technology Germany. “With the right automotive partner, we believe we can put this lifesaving technology into the hands of consumers in a couple of years.”

After thorough field testing and review by experts in the automotive industry, the Tobii platform has been proven to provide a most reliable and accurate measurement of a driver’s level of drowsiness or distraction. The system tracks the driver’s eyes and their openness and alerts when it identifies the risk of drowsiness or distraction. This significantly helps drivers to remain alert and avoid potentially fatal accidents.

[The Tobii drowsiness and distraction platform](#) is proven to meet the industry’s requirements for robust driver state detection:

- Robust Image Recognition – The system can find and recognize eyes regardless of shape, form, color or the driver’s use of glasses or sunglasses.
- Automatic Eye Recognition – The eye tracker needs no calibration; the system finds the driver’s eyes automatically.
- Tracking Robustness – A constant, uninterrupted stream of eye tracking data informs the automotive safety system of the driver’s state, regardless of changes in environmental conditions, including sunlight, darkness, and instances when the driver looks to the side or closes his or her eyes.



The technology also opens up other possibilities for enhancing the user's overall driving experience:

- Eye control of the in-vehicle infotainment system allows users to interact with the system simply through the movement of their eyes.
- Using eye recognition, the vehicle recognizes individual drivers upon their entrance into the vehicle and can automatically activate personal driver settings.
- Instruments that the driver is not looking at or using can be automatically dimmed.

“We are just getting started in terms of realizing the full potential of where eye tracking technology can take us,” said Barbara Barclay, general manager of Tobii Technology North America. “Our vision at Tobii is to ultimately see eye tracking become incorporated into our everyday life, to increase productivity, gain knowledge, enhance experiences, enable and streamline communications, and improve lives. Improving driver safety is really one of the most extreme expressions of this vision.”

View a demonstration of the [Tobii drowsiness and distraction platform in use](#).

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About Tobii Technology

Tobii Technology is the world leader in eye tracking and eye control. The technology makes it possible for computers to know exactly where users are looking and implemented in comprehensive solutions for research and communication, Tobii's leading eye tracking technology has already transformed research in many fields and enabled communication for thousands of people with special needs. Tobii delivers market-leading eye tracking technology to consumer applications such as computers, gaming and vehicle safety systems, as well as to applications in hospitals, diagnostics, security and more. Founded in 2001, Tobii continues to achieve rapid annual growth and receive awards and recognition for its accomplishments. Based in Sweden, Tobii has a global presence with offices in U.S., China, Germany, Japan, Norway, and a worldwide network of resellers and partners. For more information, visit www.tobii.com.

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