



**PRESS RELEASE**

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## **Tobii, HTEC, and D3 Embedded pioneer the integration of single-camera and radar interior sensor fusion for in-cabin sensing on Texas Instruments automotive platform**

**The companies joined forces to develop sensor fusion based interior sensing for enhanced vehicle safety, launching at the InCabin Europe conference on October 7-9**

Tobii, with its automotive interior sensing branch Tobii Autosense, together with HTEC, and D3 Embedded today announced the development of an interior sensing solution powered by Texas Instruments' automotive-grade System-on-Chip (SoC) and its high-resolution radar sensor. The solution, which will make its public debut during the upcoming InCabin Europe conference in Barcelona, is the first to fuse single-camera and radar technologies on Texas Instruments' platform for full interior sensing.

At the core we find Texas Instruments' TDA4VEN processor, part of the Jacinto™ 7 family. Designed specifically for demanding automotive AI workloads, the processor integrates dedicated AI accelerators capable of up to 4 TOPS, enabling advanced deep learning models for real-time driver and occupant monitoring. Its heterogeneous architecture, combining ARM® CPUs, vision accelerators, and DSPs, ensures ultra-low latency, high efficiency, and reliable performance under the most stringent automotive conditions.

The solution's visual sensing layer is powered by the STMicroelectronics VG5761 image sensor, a high-performance in-cabin sensor that delivers excellent sensitivity, wide dynamic range, and reliable operation even in low-light environments. Complementing this is the Texas Instruments AWRL6844 mmWave radar sensor, operating in the 60-GHz band, which provides enhanced robustness by detecting occupant presence, subtle body movements, and vital signs, even in complete darkness or when the line of sight is obstructed.

By fusing a single-camera solution with a single radar, the interior sensing capabilities are enhanced by covering unique corner cases focused on safety, such as a child left behind, or general detections obstructed by in-cabin elements. The mmWave radar is a perfect match-up for a single-camera solution, covering for all the limitations generated by the wide-field-of view RGB/NIR sensor.



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The collaboration brings together deep expertise from across the automotive ecosystem. Tobii Autosense contributes with its proprietary automotive interior sensing technology and decades of AI, machine learning, and signal processing experience. D3 Embedded leverages over 25 years of expertise in embedded systems to deliver an advanced camera and radar fusion sense and compute platform. HTEC contributes its end-to-end ADAS expertise and deep knowledge of Texas Instruments SoCs, uniting software, radar, camera systems, optimizations, and the vision stack into one seamless solution. Texas Instruments provides cutting-edge Jacinto™ 7 TDA4VEN SoC and innovative AWRL6844 3-in-1 mmWave radar sensing technology to power the platform.

"This collaboration highlights what's possible when leading innovators join forces," said Tim Henderson, Product Marketing Engineer, Low-power Radar at Texas Instruments. "By leveraging Tobii's leadership in interior sensing technology, D3 Embedded's expertise in embedded vision, and HTEC's end-to-end system integration with our Jacinto™ 7 processors and mmWave radar, we're raising the bar in in-cabin safety and user experience for the automotive industry."

Designed to enhance passenger safety and well-being, Tobii Autosense's single camera implementation enables driver and occupancy monitoring, helping OEMs meet the upcoming global safety requirements and regulations.

"This achievement reflects true collaboration across complementary domains of expertise," said Henrik Mawby, Head of Ecosystem and Partnerships Tobii Autosense, at Tobii. "By working closely with HTEC and D3 Embedded, Tobii and TI have successfully fused interior radar and camera technologies—delivering a new level of safety and cost-efficiency in occupant monitoring that helps automakers meet the evolving standards of tomorrow."

The attendees of InCabin Europe, held in Barcelona on October 7–9, can experience the sensor fusion solution in the demo car #3, where the partners will showcase how this approach sets a new benchmark in driver and occupant monitoring.

You can read more about Tobii's automotive offering [here](#).



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### **About Tobii**

Tobii is the global leader in eye tracking and pioneer of attention computing. We are on a mission to improve the world with technology that understands human attention and intent. Creating tech for a better future, our technologies and solutions apply to areas such as behavioural studies and research, healthcare, education and training, gaming, extended reality, automotive, and many more. Tobii's eye tracking is used by thousands of enterprises, universities, and research institutes around the globe. Headquartered in Sweden, Tobii is listed on Nasdaq Stockholm (TOBII). For more information:

[www.tobii.com](http://www.tobii.com).

### **ABOUT TEXAS INSTRUMENTS**

Texas Instruments Incorporated (Nasdaq: TXN) is a global semiconductor company that designs, manufactures and sells analog and embedded processing chips for markets such as industrial, automotive, personal electronics, enterprise systems and communications equipment. At our core, we have a passion to create a better world by making electronics more affordable through semiconductors. This passion is alive today as each generation of innovation builds upon the last to make our technology more reliable, more affordable and lower power, making it possible for semiconductors to go into electronics everywhere. Learn more at [TI.com](http://TI.com).

### **About HTEC**

HTEC Group Inc. is a global AI-first provider of strategic, software and hardware embedded design and engineering services, specializing in Advanced Technologies, Financial Services, MedTech, Automotive, Telco, and Enterprise Software & Platforms. HTEC has a proven track record of helping Fortune 500 and hyper-growth companies solve complex engineering challenges, drive efficiency, reduce risks, and accelerate time to market. HTEC prides itself on attracting top talent and has strategically chosen the locations of its 20+excellence centers to enable this.



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### About D3 Embedded

**D3 Embedded** is a U.S.-based company that develops end-to-end solutions integrating sensors, connectivity, embedded processing and AI to deliver advanced perception for performance-critical applications. Using its proven DesignCore® product platforms and stage-gate development process, D3 Embedded helps its customers minimize the cost, schedule, and technical risks of product development for performance-critical applications. D3 Embedded is an Elite member of the NVIDIA Partner Network, an Intel Gold Partner, and a premium member of Texas Instruments' third-party network. The company holds expertise in autonomous machines and robotics, electrification, sensing, imaging and optics, edge computing and detection algorithms. To support its products and services, the company offers ODM customization of hardware and software, validation testing, and in-house manufacturing services.