

Occupant Detection Sensing Solutions

VitaSense – Child Presence Detection System

A child can end being unattended in a car. In the automotive industry, IEE recognized the problem of children left in vehicles and thus exposed to heatstroke risk more than a decade ago. We developed VitaSense Child Presence Detection to address this global issue and help prevent hot car deaths. In the US alone, 39 children die of vehicular heatstroke on average each year.

VitaSense is a highly accurate and reliable radar system made to detect even the vital signs of sleeping new-borns. When an unattended child is detected, the vehicle's alarm and communications systems can alert caretakers or passers-by that a child is still present in the car, helping save lives.

How does VitaSense work

- VitaSense is a small sensing unit, easy to integrate behind the vehicle headliner without altering the interior design
- Based on radar technology (ideal for interior occupancy monitoring) it emits low-power radio signals and analyses reflections
- The slightest motions of an occupant influence the signals, allowing VitaSense to discriminate between a living being and an inanimate object
- When an unattended child is spotted, VitaSense feeds the info into the vehicle system to send out various alert notifications





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Why choose our system

- VitaSense is the world's first interior radar sensing solution to detect at-risk unattended children
- A unique mix of advanced sensing technology with innovative algorithms, based on extensive research and tests run with universities and medical staff
- It is sensitive enough to detect the small movements of a sleeping new-born
- The solution is not impacted by clothing or blankets; it even detects a child through the sunshade of a child seat
- It is independent of any child restraint system
- Various warnings can be triggered depending on the vehicle's capabilities: flashing lights, sounds, smart phone messages, etc.
- Easy to implement for any vehicle manufacturer
- Responds to Euro NCAP incentives foreseen for 2023 and the US Hot Cars Act
- Fully respects your privacy, as no camera is used.



About Us

IEE is a worldwide pioneer in passenger presence detection and one of the leading suppliers of advanced automotive interior sensing solutions. Founded in 1989 and headquartered in Luxembourg, it has operations in Europe, America and Asia. The innovation driven company has a long history in developing and manufacturing cutting-edge sensing systems for automotive industry, building management and eHealth. IEE employs 4,100 people worldwide and more than 10% of the company's workforce is engaged in Research & Development.

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innovation