

Texensor brings over a decade of experience in automotive seating and interior sensing solutions, delivering proven technology trusted by leading global automakers. Our solutions are deployed in millions of vehicles worldwide, supported by strong engineering capabilities, strategic collaboration, and a relentless focus on innovation.



Application Scenarios

■ Safety Throughout Impact: Texensor Occupant Classification for Airbag Control

Accurate passenger detection is critical for airbag safety systems. Beyond determining whether a seat is occupied, distinguishing between an adult and a child—particularly an infant in a rear-facing seat—is essential. Incorrect classification may lead to inappropriate airbag deployment, posing significant risk to young passengers.

How it works:

- It identifies front-passenger status via capacitive sensing and relays the classification to the ECU for intelligent control.
- It distinguishes between an adult (enabling airbag deployment) and a child or infant seat (suppressing it).
- It ensures the airbag system remains deactivated when the seat is unoccupied.



■ Personalized Support in Motion: Texensor Intelligent Seating for Upgraded Comforts

◆ For Users: Static Discomfort.

Traditional seats offer static support, failing to adapt to posture changes, pressure shifts, or growing fatigue. This often leads to backaches, numbness, and poor circulation on long journeys, turning travel into a test of endurance.

◆ For Makers: Data-Blind Design.

Without access to real-time pressure data, seat design relies on assumptions and costly trial-and-error prototyping. This data-blind approach not only extends development cycles but also increases costs and limits innovation for manufacturers.

How it works:

- It uses a high-density sensor array and multi-zone airbags to perform real-time pressure mapping and posture analysis, automatically adjusting support for an adaptive, health-conscious experience beyond static designs.
- It provides precise pressure measurements, clear visualization, and intelligent insights for seat and back surfaces. This allows designers to reliably quantify seating performance with outstanding repeatability across key tests: ingress/egress, durability, and comfort.



■ Prevent Fatigue Before It Strikes: Texensor Fatigue Detection for Safer Journeys

Fatigue is a silent safety risk. Continuous monitoring of the driver's physical condition detects early signs of fatigue before reflexes decline, helping prevent avoidable incidents and enhance on-road safety.

How it works:

- It continuously monitors driver posture, micro-movements, and key vital signs—including respiratory rate and fatigue levels.
- It detects early signs of drowsiness and issues timely alerts to prompt immediate corrective action.
- It automatically initiates countermeasures, such as adjusting seat support or suggesting a break, to help restore alertness and enhance driving safety.

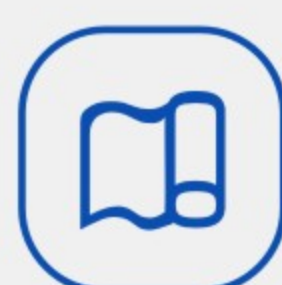


Choose Texensor with Confidence



High Accuracy & Long Service Life

Maintains accuracy within $\pm 10\%$ full-scale error after tens of thousands of loading cycles.



Ultra-Thin & Flexible Conformability

Minimal thickness and high flexibility allow it to conform to complex surfaces with minimal intrusion.



Calibration-Free Integration

Requires no calibration or zeroing at the vehicle assembly plant, enabling true plug-and-play installation.



Seamless Surface Integration

Embeds invisibly and seamlessly into the seat surface.



Seat-Heating Compatibility

Integrates simply with existing seat-heating systems via electrical connection—no redesign required.



Bespoke Design Availability

Available in fully customized sensor designs and configurations to meet OEM-specific requirements.

About Texensor

Texensor transforms everyday fabrics into adaptive, multifunctional sensing platforms—delivering precise pressure measurements, high-fidelity visualization, and intelligent data insights.

We power next-gen, fully customized solutions for leading enterprises across automotive, smart homes, healthcare, robotics, and beyond.



100+ Cross-Industry Projects

Deliver custom-engineered solutions backed by proven, real-world expertise.



2,000+ sqm In-House Factory

Guarantee quality control and agile production through full vertical integration.



10 Years of Focused R&D

Drive sensing innovation with a team where 40% are dedicated engineers.



Accredited In-House Labs

Ensure performance, reliability, and durability with rigorous testing workflows.



Full-Cycle Technical Partnership

Support your product from initial design to seamless integration and long-term deployment.