

GENTEX CORPORATION

Gentex to Demonstrate Emerging Automotive and Aerospace Technologies at CES 2023

January 5, 2023

LAS VEGAS, Jan. 05, 2023 (GLOBE NEWSWIRE) -- [Gentex Corporation](#) (NASDAQ: [GNTX](#)) is once again using CES (the Consumer Electronics Show) to showcase its product portfolio designed to help automakers progress toward the autonomous age with scalable, camera-based driver-assistance features ready for implementation on today's vehicles. In addition, the company will debut an all-new aircraft mockup that demonstrates next-gen features designed to enhance the flight experience.

Gentex is a technology company and long-time supplier of electro-optical products for the global automotive, aerospace and fire protection industries. It's best known for supplying nearly every major automaker with vision, dimmable glass, sensing, and connected-car technologies that optimize driver vision while enhancing driving safety and comfort.

"This year at CES, our automotive and aerospace customers will be able to experience Gentex technologies in new and exciting ways," said Neil Boehm, Gentex vice president of engineering and chief technology officer. "We've developed advanced vehicle and aircraft fuselage simulators that allow show attendees to experience first-hand the benefits of our technology right on the show floor."

Sensing

Evolving NCAP regulations and increasing levels of driving automation have automakers scrambling to implement safety systems for monitoring the driver and vehicle occupants. Gentex's strategy to address this need will be central to the company's expansive CES booth, which will feature a unique vehicle demonstrator that showcases a scalable yet holistic approach to driver and in-cabin monitoring. It provides an immersive experience that allows visitors to see what the system's mirror- and overhead-integrated camera see, understand the system's decision-making processes, and learn about corresponding feature sets.

Gentex's driver monitoring system tracks driver head pose, eye gaze, and other metrics to determine distraction, drowsiness, sudden sickness, and return of manual control in semi-autonomous vehicles. The system can be easily expanded to include 2D and 3D cabin monitoring for detecting passengers, behavior, objects, and even presence of life. Additionally, machine olfaction sensors provide a digital sense of smell for detecting airborne chemicals and particulates, helping keep passengers safe and vehicles up and running.

As an added benefit, the system can also turn the vehicle into a mobile communications center for making a video phone call, conducting a virtual meeting, or capturing in-cabin selfies.

"Our goal is to provide comprehensive cabin monitoring solutions, from core driver monitoring through complete cabin monitoring and machine olfaction," said Boehm. "We want to provide solutions for today's vehicles as well as transitional and autonomous vehicles, and that means engineering a comprehensive and scalable monitoring platform based on unique sensor fusion techniques."

Digital Vision

Gentex's CES booth will also highlight the company's industry-leading [Full Display Mirror](#) (FDM), an intelligent rear-vision system that uses a custom camera and mirror-integrated video display to optimize a vehicle's rearward view. The system captures video from a rearward-facing camera and streams it to a unique mirror-integrated LCD that provides the driver with an unobstructed, panoramic view behind the vehicle. The FDM debuted just six years ago and is already available on nearly 80 different vehicles from 14 different automakers around the world.

The FDM also serves a platform for additional innovation. Add-on features include a [mirror-integrated digital video recorder](#) (DVR), scalable [trailer cam](#) system, touch screen display, lane-line projection overlays, and mirror-integrated selfie cam for capturing photos within the vehicle cabin.

Dimmable Glass

Gentex is the world's leading supplier of dimmable devices, shipping over 40 million units annually. The Company's current product portfolio consists of glare-eliminating interior and exterior rearview mirrors, and electronically dimmable windows for the aerospace industry.

New to the product lineup are large-area dimmable devices, including sunroofs that darken on demand or in conjunction with system intelligence, and sun visors that fold down like a traditional visor but include a clear, dimmable panel that can darken on demand or in conjunction with sunload sensors.

The company will also highlight small-scale dimmable devices that darken to improve contrast and legibility for transparent displays, conceal sensors, and dynamically adjust camera exposure.

Car Connectivity

At CES 2023, Gentex will also highlight connectivity features like HomeLink, the industry's leading car-to-home automation system. It uses RF and wireless cloud-based transmission to activate a wide variety of home automation devices from within the vehicle, including garage doors, thermostats, home lighting, security systems, and much more.

The company will also demonstrate how automakers can develop new revenue streams by offering their customers exclusive e-concierge and travel booking services via Simplenight, a Gentex partner and provider of a white-label e-commerce platform that can be custom-branded and integrated into OEM mobile apps, center consoles, and customer engagement web sites.

Aerospace

Gentex's growing aerospace technologies will be prominently displayed in an all-new aircraft mockup.

"Many of the products initially developed for the automotive industry are built on technology platforms that can be customized for the aerospace industry," said Boehm. Dimmable glass, smart lighting, biometrics systems -- we believe these, and other technologies can make the flight experience safer and more enjoyable."

To demonstrate this premise, Gentex's aircraft mockup will feature fully functioning dimmable windows and cabin partitions; passenger smart-lighting that automatically optimizes illumination for various in-flight activities like reading, dining, or computer work; biometric systems for personalizing the in-flight experience; and in-cabin particulate and chemical sensors for monitoring cabin air quality.

Innovation Lab and the eSight Go

Recent Gentex technology acquisitions, partnerships, and prototypes will be showcased in a special Innovation Lab within the company's booth. It will also be home to the design debut of the all-new eSight Go, the latest in a line of vision-enhancing electronic eyewear designed to help those with low vision regain sight.

eSight is a developer of wearable assistive technologies that allow people living with visual impairment to stay on the go while performing the tasks of daily living.

Gentex utilized its expertise in digital vision, software development, and industrial design to help develop the eSight Go, which combines a high-definition camera, proprietary algorithms, and powerful processing to capture and project real-time video onto two high-resolution, near-to-eye screens for full binocular vision. The eSight Go will also be manufactured by Gentex and is currently targeted for launch later in 2023.

CES is the world's gathering place for all who thrive on the business of consumer technology. Owned and produced by the Consumer Technology Association, it has served as the proving ground for innovators and breakthrough technologies for over 50 years. This year's show runs January 5-8 in Las Vegas.

Gentex technologies will be on display in the Las Vegas Convention Center, West Hall, booth #6341.

Founded in 1974, Gentex Corporation (NASDAQ: GNTX) is a supplier of automatic-dimming rearview mirrors and electronics to the automotive industry, dimmable aircraft windows for aviation markets, and fire protection products to the fire protection market. Visit the company website at www.gentex.com.

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Gentex Dimmable Sun Visors



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Gentex Driver and In-Cabin Monitoring



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Gentex Aircraft Tech Demonstrator



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Source: Gentex Corporation