

Press Information

Kyocera Corporation to exhibit at Automotive Engineering Exposition 2024

Company to unveil next-generation in-car sensor technology and road communications

Kyoto/London, 21st May 2024. Kyocera Corporation (President: Hideo Tanimoto) is participating in the Automotive Engineering Exposition 2024 in Pacifico Yokohama, Kanagawa Prefecture May 22-24 (booth #N32). Kyocera showcases a compact FIR auto sensor that detects pedestrians and vehicles even in darkness or severe weather conditions, and an experiential demo of an electronic motorcycle throttle with precise sensor control to enable safer driving. Additionally, Kyocera introduces in-car related components, products, and technologies. Recognized as one of Japan's premier showcases of automotive innovation, the exposition promises to gather cutting-edge technologies from across the nation.



Kyocera booth image

Overview – Kyocera at Automotive Engineering Exposition 2024

Show	Automotive Engineering Exposition 2024
Date	Real Exhibition: 22 nd – 24 th May, 2024
	Online Exhibition (Link): 15 th May – 5 th June, 2024
Location	Pacifico Yokohama Exhibition Hall North (booth #N32)

Highlights of Kyocera's exhibition

Far Infrared Rays (FIR) sensor for vehicles

Using far-infrared radiation emitted from objects to create images, FIR sensors can detect pedestrians and vehicles in the distance, even in darkness or other adverse weather. The compact sensor, about the size of an AAA battery, allows for a high degree of flexibility in its installation, allowing it to be placed inside the grille, on the rooftop or virtually anywhere on the vehicle.

Kyocera will demonstrate object detection in darkness and a foggy environment at the exhibition.

High-resolution stereo camera with RGB-IR image sensor

Kyocera's high-resolution camera is a versatile tool, enabling long-range object detection and short-range small object detection. Simultaneously, the near-infrared light source and RGB-IR image sensor facilitate stereo sensing in dark places and other scenes that are challenging to capture with conventional cameras. This stereo camera has applications beyond automobiles, including compact mobility and autonomous mobile robots, showcasing the adaptability of Kyocera's technologies.

Rotor position sensor

Electric and hybrid vehicles require efficient motor controllers to reduce energy consumption and extend cruising range. Rotor position sensors provide fast and accurate rotor position measurements for such control devices. Kyocera's rotor position sensors support high speeds of up to 100,000 rpm and their flexible design enables positional accuracy of less than 0.5° electrically, in line with the opposite pole of the motor.

Electronic motorcycle throttle

Kyocera will demo an interactive throttle simulating a motorcycle ride. The integrated sensor in an electronic throttle grip transmits the throttle grip rotation angle to the control unit quickly and accurately. This controls sudden acceleration and braking, contributing to safe driving.

Various camera module for vehicles

Various high-resolution, in-vehicle digital cameras will be featured for improved visibility including:

- 1.3MP digital camera module for vehicles
- 3MP digital camera module for vehicles
- 8MP camera module for ADAS system

Ghost flare reduction technology for LiDAR

This lens design and manufacturing technology uses anti-reflection processing and simulation to reduce ghosting and flare caused by intense light, including sunlight. By employing this lens



in LiDAR, noise caused by ghosting and flare can be reduced and reflected light with low light intensity can be detected, making it possible to synthesize highly accurate 3D images.

Abrasion resistant/corrosion resistant water repellent coat

This versatile, water-repellent coating technology, with its excellent abrasion resistance from proprietary film formation techniques, can be applied to various surfaces including automotive camera lenses and mirrors, cover glass, traffic and harbor monitoring cameras, and marine equipment. Clear vision is ensured in various wet environments – from rainy roads to open waters - by preventing a decrease in visibility caused by water droplets.

In addition to the above, Kyocera exhibits a comprehensive range of products including capacitors, antennas, crystal devices, connectors, power semiconductors, and lens units for automotive applications.

For more information on Kyocera: uk.kyocera.com

About Kyocera

Kyocera has been successful in Europe for over 50 years. From its European headquarters in Esslingen am Neckar, KYOCERA Europe GmbH operates 26 sites including manufacturing facilities, with products ranging from fine ceramics, electronics, automotive, semiconductor and optical components to industrial tools, LCDs, touch solutions, industrial printing components, solar systems and consumer goods such as kitchen and office products.

KYOCERA Europe GmbH is a company of the KYOCERA Corporation headquartered in Kyoto/Japan, a world leader in semiconductor, industrial and automotive components as well as electronic components, printing and multifunction systems, and communications technology. The technology group is one of the world's most experienced manufacturers of smart energy systems, with more than 45 years of industry expertise. The Kyocera Group comprises 292 subsidiaries (31 March 2024). In England, Kyocera has a subsidiary in Frimley, KYOCERA Fineceramics Ltd. With around 79,200 employees, Kyocera generated net annual sales of around EUR 12.29 billion in the 2023/2024 fiscal year.

Kyocera is ranked 672 on Forbes magazine's 'Global 2000' list for 2023, and ranked as 'The 100 Most Sustainably Managed Companies in the World' according to the Wall Street Journal. For the second year in a row, Kyocera qualified for the Dow Jones Sustainability Index (Asia-Pacific). As well, Kyocera receives a Gold rating on EcoVadis Sustainability Survey for the second consecutive year and was acknowledged as a 'Top 100 Global Innovator 2024', being one of the world's leading innovators, for the eighth time by Clarivate.

The company also takes an active interest in cultural affairs. The Kyoto Prize, a prominent international award, is presented each year by the Inamori Foundation — established by Kyocera founder Dr Kazuo Inamori — to individuals worldwide who have contributed significantly to the scientific, cultural, and spiritual betterment of humankind (equivalent to approximately €596,500 per prize category).

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