Orbbec, Microsoft launch 3D vision camera

By The Robot Report Staff

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Orbbec and Microsoft released its latest 3D camera the Femto Mega

3D camera manufacturer Orbbec launched its latest product, the Femto Mega, at CES 2023. Femto Mega was built in partnership with Microsoft. The depth camera uses Microsoft's time-of-flight (ToF) technology for precise scene understanding over a wide 120 degrees field of view and a broad range from 0.25m to 5.5m. The 1 mega-pixel depth camera is complemented by a high-performance 4K resolution RGB camera with 90° FOV.

A built-in NVIDIA Jetson Nano is used to run advanced depth vision algorithms to convert raw data to precise depth images. This eliminates the need for an external PC or compute device, Orbbec said.

The camera can be directly connected to servers or the cloud using the Power over Ethernet (PoE) connection for both data and power. The device also has USB-C 3.2 and DC power supply connectors. A 6DOF IMU module provides orientation.

The universal trigger control system provides accurate frame synchronization and uses standard ethernet cables for multi-camera and multi-sensor networks. The SDK enables setup and registration, and a set of APIs allows integration with various applications.

"Orbbec's Femto Mega extends the use of Microsoft's depth technology, used in Hololens and Azure Kinect DevKit, to a broad range of industrial applications," Jon Yee, the depth PM director at Microsoft, said. "This camera is a result of a close collaboration between our teams and will be an essential tool helping AI developers to add depth perception to computer vision."

"Our large-scale cargo digitization solution is built using Microsoft's Azure Kinect and Azure and is commercially deployed in Singapore. It is also in commercial trials for flight capacity optimization and digital handling at multiple international airports," Dr. Suraj Nair, CTO at Speedcargo Technologies, Singapore, said. "Orbbec's Femto Mega enables us to maintain compatibility with our current system while reducing the size, cost and complexity of our solution. This will enable ease of scaling our operations to new locations."

"Femto Mega is aimed at expanding the use of 3D vision in various industry solutions," Amit Banerjee, head of platform and partnerships at Orbbec, said. "We're excited to introduce this new category-leading intelligent camera as part of Orbbec's new depth vision platform."

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