

July 7, 2021

ITD Lab Corporation

In cooperation with Digital Media Professionals, Inc.  
established and verified the interoperability of  
the company's Visual SLAM and our stereo cameras.

-- Accelerating Stereo Camera Business for AGV, AMR and Small Mobility --

ITD Lab Corp. (hereinafter, ITD Lab; Headquarters in Yokohama, Kanagawa, Japan; Takao Shigaki, President & CEO and Keiji Saneyoshi, CTO), a developer and licensee of ultra-high-performance stereo cameras, has established a collaboration with Digital Media Professionals, Inc. (DMP) to verify and establish interoperability between DMP's Visual SLAM software "ZIA™ SLAM" and ITD Lab's stereo cameras. This enables ITD Lab to provide an easy, high-performance packaged solution for customers developing autonomous vehicles and robots.

ITD Lab provides world-class stereo cameras for a variety of mobile and robotic applications. These applications share a deep-seated need for 3D spatial cognition, and require a high-performance stereo camera that is equivalent to the human eye. Autonomous driving is one of the representative applications of 3D spatial cognition, along with collision avoidance and pickup robots. In the future, developers of autonomous vehicles and robots will be able to easily use ITD Lab's stereo cameras and DMP's ZIA™ SLAM package solution. This means that high-performance, high-quality autonomous driving systems can be realized in a shorter development period, with less development risk, and at a lower cost, providing strong support for the business expansion of customers involved in the development of such systems.

Mr. Tsuyoshi Osawa, President and Representative Director of DMP, said, "SLAM technology using camera sensors is a cutting-edge core technology that requires high quality standards to realize autonomous robots. We are very pleased to be working with ITD Lab to establish interoperability between their stereo camera, which offers the highest level of accuracy in the industry, and our ZIA™ SLAM and ZIA™ MOVE. We are constantly striving to improve the accuracy and performance of our products and services in order to become a solution vendor that can meet the high technological demands of the autonomous robotics market. We will continue to support our customers' overall robotics product development not only by providing our technology, products and services, but

also through collaboration with ITD Lab and other partners.

ITD Lab's stereo camera handles all of the computationally intensive stereo matching on a single FPGA (Field Programmable Gate Array) chip built into the camera, which significantly reduces system cost, size, and power consumption, even though it is an ultra high-speed camera capable of 60 to 160 frames per second. Moreover, since the contours of objects are clearly expressed in the depth image, collision avoidance and automatic driving systems can be built without the use of expensive LiDAR. Thanks to these features, a packaged solution with DMP's ZIA™ SLAM can provide autonomous driving while at the same time incorporating 3D spatial awareness applications such as collision avoidance, hazardous area assessment, and even robot picking. With these many advantages, ITD Lab's stereo cameras are not only suitable for automobiles, small mobility (construction machinery, farm machinery, senior cars, wheelchairs, AGVs, AMR), factory automation robots, and cleaning robots, but also for drones due to their small size and low power consumption.

[About ITD Lab]

ITD Lab was founded by Keiji Saneyoshi, former associate professor at Tokyo Institute of Technology and inventor of the "stereo camera used in Subaru EyeSight" (currently CTO of ITD Lab). After retiring from Subaru in 1998, Saneyoshi taught at Tokyo Institute of Technology and worked independently of Subaru for almost 20 years until his retirement in 2017 to improve and refine stereo camera technology. ITD Lab started its research and development of stereo cameras by taking over this accumulation of Saneyoshi's work. The head office is located in the Yokohama Venture Plaza of Tokyo Tech in Nagatsuta-cho, Midori-ku, Yokohama City, Kanagawa Prefecture, and is staffed by CTO Keiji Saneyoshi, President and CEO Takao Shigaki, two other directors, and 12 employees.

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