

Press Release

Google announces pmd as a Project Tango partner

Project Tango strives to give mobile devices a human-like understanding of space and motion through advanced sensor fusion and computer vision.

June 6th, 2014 – Siegen/Germany – Google's ATAP (Advanced Technology and Projects) group announced, that pmdtechnologies gmbh (pmd) is one of the technology partners in Project Tango, a revolutionary approach to give mobile devices the ability to detect and understand their environment and open up a variety of new and innovative applications on top of these capabilities.

"Project Tango strives to give mobile devices a human-like understanding of space and motion through advanced sensor fusion and computer vision, enabling new and enhanced types of user experiences – including 3D scanning, indoor navigation and immersive gaming", says Johnny Chung Lee, Technical Program Lead of the ATAP group. "We are excited about working with partners, such as pmd, as we push forward the hardware and software technologies for 3D sensing and motion tracking on mobile devices."

The 3D Image Sensor chips that are used in the project were developed by pmd in collaboration with Infineon Technologies AG. These chips include pmd's ToF (Time-of-Flight) pixel matrix and patented Suppression of Background Illumination (SBI), a feature which improves the sensor chip's dynamic range for indoor and especially for outdoor operations. 3D camera modules based on this so called IRS 10x0C chip family can achieve unmatched levels of miniaturization and still deliver excellent depth measurement performance. This high level of integration lowers cost, power consumption and size of the complete camera module. Putting 3D sensing on a mobile device has been impossible up until this point purely because of these issues.



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Now, it's a reality as the IRS 10x0C chip family is ready for mass volume ramp-up. Further technical information on pmd-based 3D Image Sensor chips is available at <u>www.infineon.com/3d-imaging</u>.

"At pmd, we strongly believe that the future of 3D applications is mobile. As 3D sensors start showing up in phones and tablets, those technologies will enable millions of people to capture, share, and interact with the world around them in real 3D. Thus, we're thrilled about Google's latest Project Tango announcement that pmd is one of the partners within Project Tango", says Jochen Penne, Director Business Development at pmd. "We're especially excited because we've been developing a very tiny 3D camera module that fits mobile specifications, and now we have promising results to show."

About pmdtechnologies gmbh

pmdtechnologies gmbh, a fabless IC company based in Siegen/Germany, is the worldwide leading 3D Time-of-Flight CMOS-based digital imaging technology supplier. Started up in 2002, the company owns over 150 worldwide patents concerning pmd-based applications, the pmd measurement principle and its realization. Possible applications for pmd's 3D sensors are industrial and automation, autonomous robotics and automotive, security and surveillance, medical and lifescience, and consumer. Up to date, pmd has sold almost a million pmd sensors. Further information is available at <u>www.pmdtec.com</u>.



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