



PRESS RELEASE

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[For immediate release](#)

e-con Systems Launches the STEEReoCAM™ High-Resolution Stereo Camera for NVIDIA Jetson AGX Xavier and Jetson TX2

ST. LOUIS and CHENNAI, India – March 19, 2019 - e-con Systems Inc., a leading embedded camera solution company, today launched STEEReoCAM, a MIPI CSI-2 interface version stereo vision camera for NVIDIA Jetson. [STEEReoCAM](#) is a 3D stereo camera with a 2MP global shutter monochrome CMOS image sensor from OmniVision with MIPI interface support. It is powered by a proprietary CUDA-accelerated stereo camera SDK, TaraXL, for NVIDIA Jetson processors. STEEReoCAM supports (2*(1600 x 1300)) resolution at 30 fps.

STEEReoCAM is bundled with the TaraXL SDK that runs on NVIDIA Jetson processors. Together they provide 3D depth maps for 1600 x 1300 resolution at 22 fps without stressing the CPU. It supports three modes of operation:

- Ultra-accuracy, which supports depth mapping at 5 fps
- High-accuracy mode, which supports depth mapping at 15 fps
- High frame rate mode supports depth mapping up to 22 fps in NVIDIA Jetson TX2

e-con Systems also provides sample applications with source code, demonstrating synchronous stereo image streams, disparity map and depth measurement. Customers can build their depth sensing-based applications on top of this SDK with STEEReoCAM on NVIDIA Jetson platforms. The STEEReoCAM camera is ideal for applications such as robotics and autonomous guided vehicles, drones, surgical robotics, depth sensing, gesture recognition, 3D video recording, 3D measurements, embedded vision, and so on.



“With STEEReoCAM, e-con leaps ahead with the resolution of 2MP for its next-generation stereo cameras with our TaraXL SDK. The increased depth accuracy and distance range of STEEReoCAM make it ideal for autonomous guided vehicles and robotics,” said Ashok Babu, president of e-con Systems Inc. *“e-con can customize the baseline or lens and interface options to meet our customers application requirements.”*

“e-con’s latest camera provides depth mapping to help machines eyes better understand and navigate complex environments,” said Murali Gopalakrishna, head of product management, autonomous machines



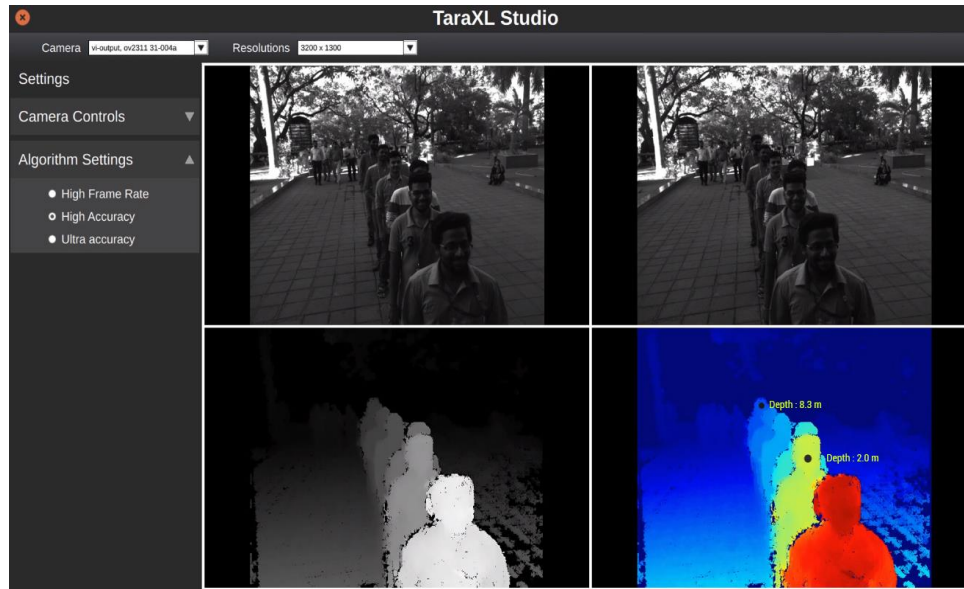
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at NVIDIA. *“By bringing these new features to the Jetson ecosystem, e-con’s enabling our customers to build more advanced robotic applications.”*



STEEReoCAM’s form factor of 135 x 20 x 23.65 mm (Without Enclosure) consists of two OmniVision 1/2.9-inch OV2311 CMOS image sensors separated by an inter-ocular distance or baseline of 100 mm and pre-calibrated lens pair mounted on S-Mount holder (also known as M12 lens mount). The STEEReoCAM interfaces to the MIPI port of the NVIDIA Jetson TX2 Developer Kit through an adapter board. With MIPI interface, STEEReoCAM can stream uncompressed stereo, which is processed by TaraXL SDK with Jetson to generate the depth map of the scene.

The STEEReoCAM is best fit for the accurate depth sensing with flexible range between 0.95m to 8m. It also houses 6-axis IMU, which comprises a 3D accelerometer and a 3D gyroscope. The on-board IMU is used for autonomous guided vehicle applications along with visual odometry and SLAM.

TaraXL Software Development Kit (SDK)

TaraXL is the software development kit that can be used with STEEReoCAM. TaraXL SDK is a software library with sample applications -- TaraXL Studio -- to aid in faster development. TaraXL SDK is built from the ground up using CUDA APIs developed by NVIDIA. TaraXL SDK is fully tested on the NVIDIA Jetson TX2 Linux platform. The TaraXL SDK provides disparity and depth maps. Using these maps, customers can develop various applications for autonomous roving and other machine vision applications. TaraXL SDK natively comes with C++ bindings. Developers can use these bindings to build various wrappers for Robot Operating System (ROS).



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Availability

STEEReoCAM stereo vision camera for NVIDIA Jetson is currently available for evaluation. Customers interested in evaluating the STEEReoCAM can order samples from e-con Systems' [online store](#). For more information, please visit STEEReoCAM - stereo vision MIPI camera for NVIDIA Jetson. <https://www.e-consystems.com/nvidia-cameras/jetson-agx-xavier-cameras/stereo-camera.asp>. Also watch Depth Accuracy demo at <https://www.youtube.com/watch?v=TOQTFPeaWq8> and Point Cloud demo at <https://www.youtube.com/watch?v=Ku3D73SQfKg>

Customization Services

Customers interested in customizing STEEReoCAM can contact camerasolutions@econsystems.com for any customization such as baseline, sensor or optics/lens change and for additional features. e-con Systems can also assist you in developing end stereo camera application using STEEReoCAM.

About e-con Systems

e-con Systems specializes in camera solutions with offerings such as camera modules, USB camera modules, camera boards for various microprocessors, camera reference design, software ISP, camera customization and camera tuning.

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