Limelight Vision Introduces Zero-Code, Hailo-Empowered Limelight 4 Smart Camera and Robot Controller at CES 2025

Robotics pioneer Limelight is sole provider of robot cameras and controllers for the 2025 FIRST® Robotics Competition, combining sport with science & tech.

LAS VEGAS, NV, UNITED STATES, January 9, 2025 /EINPresswire.com/ -- With a mission to promote STEM studies and make it easier than ever to develop advanced vision-based robots, Limelight Vision today introduced the zero-code, Limelight 4 Smart Camera, in collaboration with Hailo, the pioneering chipmaker of edge artificial intelligence (AI) processors. The Limelight products are complete with a software interface which enables anyone, of nearly any age, to simply and easily add AI-enabled vision pipelines to their robots.

The Limelight 4 is being showcased at CES 2025 in Hailo's Venetian Suite 29-106, where demonstrations are being held throughout the show.

The Limelight 4 platform is designed to be easy enough to use for individuals with no or limited coding experience, yet powerful enough for even the most sophisticated robotic projects and products. Empowered by Hailo's Hailo-8 AI accelerator with a compute power of 26 Tera Operations per Second (TOPS), it equips any robot with advanced AI capabilities enabling a range of real-time perception tasks such as object and people detection, 3D robot localization, image segmentation and more.

"STEM education and robotics are the cornerstones of fostering future innovation," said Orr Danon, Co-Founder and CEO of Hailo. "For Hailo, investing in STEM education and empowering young minds through hands-on experience is the means to nurture the next generation of scientists and entrepreneurs. This is why our engineers volunteer to support FIRST robotics teams. Our collaboration with Limelight further democratizes access to transformative technologies, making the use of advanced AI capabilities more accessible to everyone."

The Limelight 4 is powered by the Raspberry Pi CM5 and includes 2GB of RAM and 16GB of storage. It features 26 TOPS empowered by the Hailo-8 AI accelerator; OV9281 monochrome global shutter and IMX462 back-illuminated color sensor options; built-in IMU; and a 3.5V-30V input voltage range. Language support includes C++, Python, C#, and Java.

"Limelight 4 removes the barriers of technological anxiety and expertise, enabling anyone to

build vision-based robots with minimal code," said Limelight Vision Founder Brandon Hjelstrom. "Web developers have thousands of tools and abstractions that make their work as straightforward as it can possibly be. Robotics engineers, comparatively, are on their own. By making robotics engineering simpler, we'll inspire more people to build the robots of tomorrow."

The Limelight demo at CES will show Limelight 4's Hailo-accelerated, zero-code vision pipeline for 3D Robot Localization with AprilTags and IMU Fusion.

Limelight 4 cameras will be made available to participants in the 2025 FIRST Robotics competition. Founded in 1989, FIRST® (For Inspiration and Recognition of Science and Technology) is a global nonprofit organization that prepares young people for the future through a series of team-based robotics competitions held across the US and globally.

Hailo-8 is the world's most efficient AI processor both in terms of performance to cost and performance to power consumption ratios. The compute power enabled by the Hailo-8 accelerators ranges from 13 TOPS for the Hailo-8L, designed for entry-level AI applications, all the way to 200 TOPS for the high-performance Century PCIe card.

"To achieve Limelight's goal of making robotics easy, we've prioritized marrying powerful hardware with easy-to-use, well-supported software," concluded Hjelstrom. "Our partnership with Hailo works as well as it does because Hailo too shares in this vision – Hailo-8 is an incredibly powerful and advanced AI accelerator, and it comes with the very best software support in the market today."

For more information about Hailo's AI processors for edge devices, visit www.hailo.ai. For more information on Limelight Vision, visit www.limelightvision.io.

To schedule a meeting with Hailo and Limelight at CES, please see https://hailo.ai/company-overview/newsroom/events/ces-2025/. For high-res imagery and video, click here and see https://www.youtube.com/watch?v=AQZ8CuNk0J8.

About Limelight Vision

Limelight Vision, founded in 2017, aims to make robotics easy with its line of high-performance, zero-code smart cameras and robot control systems.

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