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Kawasaki Robotics Unveils Physical AI-Ready Robots and Intelligent Automation Technologies at Automate 2026

New 8-DoF RL030N Robot, AI-Driven Weld Inspection and Real-Time Closed-Loop Systems Highlight Kawasaki's Next Generation of Adaptive Industrial Automation

By **Ankit Kankar** | September 13, 2026

Kawasaki Robotics will debut several advanced automation technologies at Automate 2026 in Chicago, demonstrating how robotics, AI, machine learning, vision systems, and real-time control are transforming industrial automation.

Featured innovations include the debut of the new RL030N 8 Degree of Freedom (DoF) robot platform designed for Physical AI applications, Kawasaki Robotics' patented Pulseboard inspection technology demonstrated in a live robotic weld inspection system developed with Fives DyAG, and the introduction of the new MXP360L and BA013L industrial robots. Demonstrated throughout Kawasaki Robotics' booth (S-2201), these technologies showcase intelligent automation systems capable of advanced motion control, precision inspection, and flexible manufacturing.

"At Kawasaki Robotics, we believe the future of automation will be defined by robotic systems that seamlessly integrate perception, motion, and decision making," said Seiji Amazawa, President, Kawasaki Robotics. "Automate 2026 marks an important milestone as we introduce technologies designed to support emerging Physical AI applications while continuing to deliver the industrial reliability manufacturers depend on."

RL030N Introduces a New Robot Platform Built for Physical AI Applications

Making its debut at Automate 2026, the RL030N robot is the industry's first 8-axis robot designed specifically for Physical AI applications. It combines high-speed motion, enhanced dexterity, lightweight construction, and real-time external orchestration capabilities for dynamic and confined environments.

Unlike conventional industrial robots optimized for repetitive tasks, the RL030N supports AI-driven applications requiring adaptive motion, obstacle avoidance, confined-space manipulation, and complex motion planning. Its unique 8DoF architecture adds an additional articulation axis, providing greater dexterity and flexibility than traditional 6-axis robots.

The RL030N is powered by Kawasaki Robotics' open KRNX real-time control API, enabling external AI software, ROS environments, machine learning systems, vision platforms, and third-party orchestration systems to directly control the robot in real time.

Patented Pulseboard Technology Enables Faster Robotic Weld Inspection

Kawasaki Robotics will also demonstrate its patented Tool Tip Displacement Output Function technology, known as Pulseboard, integrated into an advanced robotic weld inspection solution developed with partner Fives DyAG. The system combines a Kawasaki RS013N robot, a laser 3D profile camera, and Kawasaki's high-speed motion synchronization technology to improve inspection performance for complex weld geometries and curved surfaces.

Unlike conventional inspection systems that require robots to stop repeatedly for image capture, Pulseboard continuously synchronizes image acquisition in real time with the robot's tool-tip displacement. This enables high-resolution imaging even during acceleration and deceleration, resulting in a robotic inspection system capable of up to 10x faster weld inspection, reduced setup requirements, precise defect localization, and high-speed inspection without sacrificing accuracy.

Wade Rickard, CEO of Fives DyAG Corp., said, "The solution developed in partnership with Kawasaki using the pulseboard delivers real value to our customers. It accelerates inspections, identifies defects, and maintains the highest level of quality without slowing or sacrificing production time. Together with Kawasaki, we deliver an innovative high-speed inspection solution that redefines efficiency, enhances reliability, and enables smarter operations."

Kawasaki Robotics and Coherix Demonstrate Intelligent Closed-Loop Dispensing

Kawasaki Robotics will also showcase the BU015X 7-axis robot in an adhesive dispensing and inspection demonstration developed with Coherix. Designed to simulate a real-world automotive production environment, the system applies sealant to a Ford F-150 door skin while continuously measuring and automatically adjusting adhesive bead placement in real time at speeds of up to 400 times per second.

Combining Kawasaki Robotics' hollow-arm robot design with [Coherix's](#) 3D laser-based Adaptive Process Control technology, the system uses machine learning and real-time process optimization to help manufacturers reduce defects, material waste, labor costs, and rework while maintaining full production-line speeds.

"This closed-loop dispensing demonstration represents the next evolution of intelligent manufacturing, where robotics, AI-driven process control, and real-time inspection work together to create systems that continuously adapt and optimize," said Scott Childs, Sr. Director, Automotive Group, Kawasaki Robotics.

New BA013L and MXP360L Robots Expand Automation Portfolio

The BA013L 13 kg arc welding robot will make its debut inside a compact welding cell designed for high-performance welding applications. The cell features the BA013L robot, Kawasaki PST500-L2 dual-axis positioner, Rollon Glider RTU, Strong Hand welding table, and Miller welding power source to demonstrate flexible, high-precision automation.

Built for demanding production environments, the robot features a redesigned architecture with a 50 mm hollow wrist for internal cable routing along with support for high-current welding torches, reduced cable wear, and improved accessibility. High-speed axis performance reaching 730°/s and an extended 2,093 mm reach help improve cycle times while maintaining weld quality.

The MXP360L features a 360 kg payload capacity, extended reach, and advanced vibration-control technology for heavy-duty material handling applications. At Automate 2026, the robot will be displayed handling a Kawasaki Z125S motorcycle on a Rollon RTU linear axis. Kawasaki Robotics will also feature collaborative robot demonstrations, including CL Series welding carts and a sanding application using a FerRobotics sanding tool.

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