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**FOR IMMEDIATE RELEASE**

**Federal Electronics Deploys Advanced Vision Solution to Automate Inspection of Industrial Control Panels and Electronics Box Builds**

**CRANSTON, RI — March 2026 —** Federal Electronics, a leader in providing advanced electronic manufacturing services, has implemented an advanced automated vision inspection solution to support final inspection of industrial control panels and electronics box builds. The new system replaces manual visual inspection, improving throughput, consistency, and overall inspection reliability.



The inspection solution uses a high-resolution smart camera with zoom capability and multi-spectrum lighting to perform precise, repeatable visual checks during final inspection. Fully integrated into Federal Electronics' power distribution (PD) electrical box inspection line, the system verifies critical assembly attributes that are traditionally prone to human error during manual inspection.

The automated inspection process is designed to confirm the presence and alignment of electrical and electronic components, validate component identification details such as visible part numbers and ratings, and verify the correct application of labels and markings. This ensures assembly accuracy, product consistency, and confidence that each unit meets defined build requirements prior to shipment.

Federal Electronics' engineering team led the development and implementation of the system, including software configuration, fixture design, and inspection procedure development. Manufacturer-provided training supported the deployment, enabling the team to tailor the solution to the specific requirements of industrial control panel and box build assemblies.



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By automating final inspection, Federal Electronics has reduced inspection time while improving process efficiency and repeatability. Key benefits of the vision-based inspection system include faster inspection cycles, improved throughput, reduced risk of human error, and greater consistency in quality checks—particularly important for complex, low- to mid-volume assemblies.

“Automating visual inspection allows us to improve both efficiency and confidence in the finished product,” said Ed Evangelista, President of Federal Electronics. “This solution supports the level of quality and consistency our customers expect for complex industrial and regulated applications.”

Founded in 1961, Federal Electronics provides cable assembly, wire harness, printed circuit board assembly, electromechanical integration, and system-level builds for OEMs with complex programs. The company operates manufacturing facilities in Cranston, Rhode Island, and Hermosillo, Mexico, supporting customers across industrial, medical, military, and defense markets.

For more information about Federal Electronics and its manufacturing capabilities, visit [www.federalelec.com](http://www.federalelec.com) or contact [sales@federalelec.com](mailto:sales@federalelec.com).

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## **About Federal Electronics**

Established in 1961, Federal Electronics is a leading provider of advanced Electronics Manufacturing Services (EMS), specializing in complex, mission-critical products for industries such as defense, industrial, and medical. With over six decades of experience, the company offers comprehensive solutions that encompass engineering, supply chain management, and manufacturing services tailored to meet the unique challenges of high reliability markets.