

## **Automating the World**

# Leading fire detection device manufacturer boosts throughput with new robotic workcell

### Hatfield, UK – January 2025

Mitsubishi Electric has helped to deliver a step-change in productivity and quality control for a leading manufacturer of fire detection and alarm devices.

In partnership with Maidenhead-based machine builder and systems integrator, Design & Automation Solutions (DAS), the company has contributed to the design of an automated workcell for the assembly of fire alarm box components.

Programmed by Loop Automation, the system comprises two DAS-built sub-assembly cells used to insert and tighten screws and apply brass inserts into two different prefabricated shells. A 6-axis Mitsubishi Electric RV-4 robot links both applications, which is responsible for both loading and unloading and pick and place operations. With a target throughput of 300 parts an hour



per function, the new design not only significantly increases the efficiency of the component manufacturing compared to manual assembly, but also improves quality control.

The solution is also controlled by a Mitsubishi Electric Q Series PLC and features a GOT 2000 HMI operator interface, three iQ-F PLCs as remote IO stations, as well as a CC-Link IE field network.

Mick Stallwood, Director at DAS, commented: "The initial implementation of the new solution has been a huge success, having allowed the customer to make marked improvements to throughput. On top of this, we have received very positive feedback from their operators, who have been impressed by the level of intuitiveness displayed by the system.

"We've been working with Mitsubishi Electric for over 30 years now, and the quality of their products is always excellent. Given the customer is also a prominent Mitsubishi end user themselves, it was a natural fit to partner with them on this project."

Richard Allen, OEM Business Development Manager at Mitsubishi Electric, adds: "Our aim is to help OEMs build the best machines that they can, and DAS and Loop are brilliant examples of machine builders and programmers going above



and beyond to unlock new efficiencies for their customers. The new system has raised the bar considerably, both from a productivity and quality control perspective, and we're pleased to hear the impact that it is already having on the customer's operations.

"In short, this project truly represents our ecosystem at its very finest, and we're delighted to have played our part in it."

For more information on Mitsubishi Electric's range of solutions for OEMs and machine builders, please visit: <u>https://gb.mitsubishielectric.com/fa/solutions/industries/machine-building</u>.

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#### **About Mitsubishi Electric Corporation**

With more than 100 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Mitsubishi Electric enriches society with technology in the spirit of its "Changes for the Better." The company recorded a revenue of 5,003.6 billion yen (U.S.\$ 37.3 billion\*) in the fiscal year ended March 31, 2023.

For more information, please visit www.MitsubishiElectric.com

\*U.S. dollar amounts are translated from yen at the rate of ¥134=U.S.\$1, the approximate rate on the Tokyo Foreign Exchange Market on March 31, 2023.

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