

## News Release

# Yamaha Robotics to present advanced inspection solutions powering emerging trends at Electronica 2024

**Opportunity to see innovations in 3D-AOI that increase resolution, throughput, and accuracy, the latest in solder-paste inspection (SPI), and new software tools in YSUP production support package**

Yamaha Robotics SMT section will exhibit at Electronica for the first time in 2024, showcasing precision inspection solutions. The booth, 462 in hall A3, will feature 3D AOI (automatic optical inspection) enhanced with AI and special features that improve inspection of tiny SMD chips and difficult components such as LEDs and WLCSP semiconductors.

Visitors will be able to see Yamaha's YRi-V 3D AOI system with AI assistance for laborious tasks, enabling a significant boost to productivity for users. This technology significantly accelerates library creation and tuning. The standard YRi-V system comes with a 12Mpixel camera and offers 12 $\mu$ m, 7 $\mu$ m, and 5 $\mu$ m resolution options, and can integrate directly in surface-mount lines configured for single-lane or dual-lane operation.

The new YRi-V TypeHS 3D AOI system, with its 25Mpixel camera, increases inspection speed by more than 50% to 30.5cm<sup>2</sup> per second at 7 $\mu$ m resolution to greatly increase production throughput. In addition, the optional 3D laser helps measure components with opaque or highly reflective surfaces, such as LED lenses and WLCSP packages, which are notoriously difficult to inspect. Both the YRi-V and YRi-V TypeHS feature Yamaha's high-accuracy LED measurement capability, which cuts the time to check the alignment of LEDs arrayed in groups, such as multiple emitters in a smart headlamp assembly.



Yamaha\_YRi-VTypeHS

Also on the booth, Yamaha will demonstrate the new VP-01G-Y inline solder-paste inspection system, which provides high-speed, high accuracy 2D paste-on-pad inspection after screen printing and before component placement.



Yamaha VP-01G-Y

“The high-performance inspection systems we are presenting at Electronica this year highlight the importance of advanced quality control to support the rapid pace of electrification,” said Shuichi Imai, Sales General Manager for Europe at Yamaha Robotics. “We are excited to showcase the innovations in our YRi-V TypeHS system that support the demands of different markets. Our demonstrations of machines and software will show how cutting-edge technologies like AI can make engineers’ lives easier and accelerate new product introduction.”

In special focus areas, Yamaha specialists will describe the software that powers these high-speed, high-accuracy, flexible inspection systems. These software tools feature intuitive graphical user interfaces that help quickly program the machines, with an easy-to-use dashboard that helps interpret the results and monitor production status. Visitors can also see the YSUP-LINK software in action, which connects all Yamaha surface-mount equipment on the factory floor with enterprise systems such as manufacturing execution and resource planning, enabling intelligent factories.

YSUP-LINK is a part of Yamaha’s complete production support system, YSUP, which comprises powerful tools for setting up, monitoring, and remotely controlling all Yamaha equipment in the production line. In addition to the inspection systems on display at Electronica this year, Yamaha has a portfolio of high-speed, highly automated screen printers, placement machines, and component storage systems. Together comprising the 1 STOP SMART SOLUTION, they are designed to connect and communicate seamlessly throughout production lines and across factories to maximise productivity, and deliver flexibility, space efficiency, and scalability.

Yamaha Robotics will present its advanced inspection systems during Electronica 2024 at Messe München, booth 462, hall A3, November 12—15, 2024.

### **About Yamaha Robotics SMT Section**

Yamaha Surface Mount Technology (SMT) Section, a subdivision of Yamaha Motor Robotics Business Unit in Yamaha Motor Corporation, produces a complete selection of equipment for high-speed inline electronic assembly. This 1 STOP SMART SOLUTION includes solder paste printers, component mounters, 3D solder paste inspection machines, 3D PCB inspection machines, flip-chip hybrid placers, dispensers, and management software.

Bringing the Yamaha way to electronics manufacturing, these systems prioritize intuitive operator interaction, efficient coordination between all inline processes, and modularity enabling users to meet the latest manufacturing demands. Group competencies in servo-motor control and image recognition for vision (camera) systems ensure extreme accuracy with high speed.

The current product line includes the latest YR equipment generation, with advanced automated features for programming, setup, and changeovers, and new YSUP management software with state-of-the-art graphics and built-in data analytics.

Combining design and engineering, manufacture, sales, and service competencies, Yamaha SMT Section ensures operational efficiency and easy access to support for customers and partners. With regional offices in Japan, China, Southeast Asia, Europe and North America, the company provides truly global presence.

[www.yamaha-motor-robotics.eu](http://www.yamaha-motor-robotics.eu)