



Omron helps Las Vegas-based system integrator build a new barcode verification system using MicroHAWK and other Omron technologies

EIS Automation, a system integrator in Las Vegas, Nevada, partnered with Omron to create its Tarsier Series barcode verification system. Specializing in barcode systems, the company undertook this new project to enhance traceability for a variety of customers across a number of industries.

EIS started developing its own front-end .NET programming for barcode verification targeted towards customers in any type of industrial environment. The system integrator chose to work with Omron thanks to the automation supplier's global reach and the fact that all

technologies are designed to work as a single solution. The two companies' trusted relationship was also a major factor in the decision.

Initially working with MicroHAWK as the only Omron technology, EIS eventually decided to incorporate Omron's Sysmac control solutions, panel builder initiative technologies and TM series collaborative robot as well. This allows the company to offer a range of options for customers seeking to improve their traceability, from basic barcode reading and verification to complete automation systems with robotics, control and more.

Business need

EIS Automation wanted to develop a new barcode verification system that would be installable on virtually any type of industrial equipment, including conveying lines, packaging machinery, assembly lines, printing equipment and more.

Unique solution

The new system features a fully assembled control panel with an I/O machine interface and data output as well as up to four MicroHAWK barcode readers that can decode 1D or 2D symbols and perform optical character recognition (OCR).

Customer benefits

The new system has several advantages, including a small footprint, flexibility in programming and connectivity as well as relative simplicity in troubleshooting thanks to the fact that all technologies come from a single vendor.

The solution

Code reading, verification and OCR with MicroHAWK



The need

A major goal for the new system was to make it installable on virtually any type of industrial equipment, including conveying lines, packaging machinery, assembly lines and printing equipment. It would be the ideal solution for a variety of industries, including life sciences, healthcare, packaging, printing, food and beverage and more. Ultimately, it needed to be a turnkey solution that would also be highly customizable.

The system is intended to work with both synchronous and asynchronous operations in order to cover all customer requirements. In synchronous reading, a single trigger will read multiple codes that are related in some way (for example, a single package containing four items), whereas asynchronous reading will have separate triggers for each code.



The technology

The system features a fully assembled control panel with an I/O machine interface and data output as well as up to four barcode readers, which are from Omron's popular MicroHAWK family. They can read 1D or 2D codes and can perform optical character recognition (OCR) when upgraded to smart cameras.

MicroHAWK is a flexible platform that uses the same hardware to provide either basic barcode reading or more advanced machine vision capabilities, depending on the software license. If a customer initially acquires a MicroHAWK barcode reader, that device can be upgraded to a smart camera with a new license.

MicroHAWK barcode readers offer both .NET programming and Ethernet connectivity, further enhancing their flexibility. The Tarsier system also uses the S8VK-G switch mode power supply and the NX1P2 CPU is offered as an option.



The outcome

The Tarsier system has several advantages. The first is its contribution to space savings, as the MicroHAWK barcode readers have an exceptionally small footprint. The second advantage is its flexibility in programming and connectivity thanks to Omron's highly customizable software development kit and support from the Omron advanced sensing team. Finally, the fact that the system's multiple technologies come from the same vendor means that it is easier to integrate and troubleshoot.

EIS has created a new standard of product to offer its existing machine vision and robotics customers. During the first year of its implementation, the new Tarsier system has been implemented in more than 25 applications. The company is expanding its partnership with Omron and is already solving applications using Omron TM Series collaborative robots.

For more information on the Tarsier system, visit www.eisautomation.com

