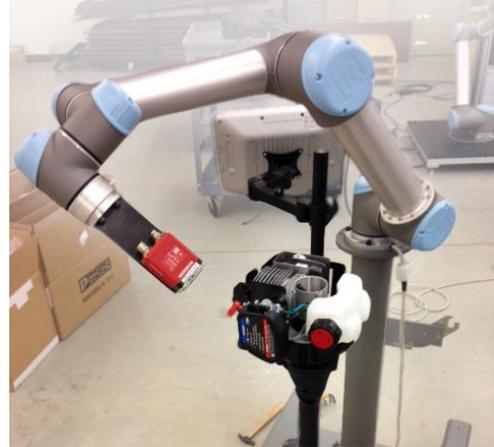


FOR IMMEDIATE RELEASE:

Microscan Machine Vision Cameras Chosen for UR5 Inline Robotic Inspection System

RENTON, WA, April 15, 2015 — Microscan, a global technology leader in barcode, machine vision, and lighting solutions, has been selected by Cross Company's Automation Group for an integrated robotic inspection solution using the Universal Robots [UR5](#) robotic arm and Microscan [Vision HAWK Smart Camera](#). The vision-guided robot is a turnkey inspection system that provides final quality inspection of



large components like automotive engines or large electronic sub-assemblies where multi-point inspection of the part is required in three dimensions. The solution combines easy-to-use machine vision components with easy-to-use robotics, solving complicated inline inspection applications simply and safely for manufacturers.

In order to perform quality inspection of large components, multiple machine vision cameras are typically required because the component may be too big for the available number of pixels in a single machine vision sensor to capture all part features and complete all inspections in one image, or the inspections must be made from several angles around the component. This type of inspection is therefore not commonly automated because of the requirement for excessive equipment, mounting space, and complex configuration of all necessary tools. But this is where robotics, like the UR5 robotic arm, excel in simplifying all equipment into a single automation solution. The UR5 system uses one machine vision camera in a dynamic application, where robot and camera communicate data in order to navigate to the necessary inspection points on all sides of the component.

In Cross Company's UR5 robotic inspection system, the inspection locations for a given part are communicated by way of a SKU that is read from a component as it enters the inspection point on the manufacturing line. This SKU initiates a machine vision job on the Vision HAWK Smart Camera containing all of the prescribed inspection steps for that component. As the UR5 robotic arm moves to the correct position, a command is sent to the Vision HAWK camera for the correct sub-inspection to perform at that location. The system keeps track of the cumulative results of all inspections and this collective

pass/fail data is combined into an overall quality report for the component. The system can then perform new sets of inspections for new components coming down the line based on the unique SKU of each component, indicating specific inspection tasks. This modular process ensures automated quality control can be incorporated without downtime on the line, enabling a fully inline inspection step that is easily incorporated at any stage of manufacturing.

Microscan's Vision HAWK Smart Camera was selected for Cross Company's UR5 inspection system because of its fully-integrated design, bringing together powerful inspection tools, image processing, advanced optics, liquid lens autofocus, and LED lighting all within one compact industrial machine vision camera. The camera integrates easily into equipment via RS-232 or Ethernet connections and can communicate over serial, Ethernet TCP/IP, EtherNet/IP™, and PROFINET I/O® protocols using the Microscan Link industrial connectivity tool, available across all Microscan machine vision systems. Part of Microscan's [AutoVISION](#) family of machine vision products, the Vision HAWK Smart Camera takes advantage of a full suite of inspection capability and user-friendly technologies from Microscan's legacy of machine vision innovation. This includes the new [CloudLink Web HMI](#), which is used in the UR5 robotic inspection system to display inspection results on a wireless tablet or smart phone using a web browser.

Cross Company's UR5 robotic inspection system was recently demonstrated at [Automate 2015](#) in Chicago, where Microscan Machine Vision Promoter Dr. Jonathan Ludlow hosted a [Video Showcase](#) of the live UR5 robotic inspection demo, organized by machine vision global media source [Vision Systems Design](#). More information about the UR5 robotic inspection system solution is available at [cross-automation.com](#), and from Product Manager Paul Carter in the [Cross Company Blog](#).

For more information about Microscan, visit www.microscan.com.

About Microscan

Microscan is a global leader in technology for precision data acquisition and control solutions serving a wide range of automation and OEM applications. Founded in 1982, Microscan has a strong history of technology innovation that includes the invention of the first laser diode barcode scanner and the 2D symbology, Data Matrix. Today, Microscan remains a technology leader in automatic identification and machine vision with extensive solutions for ID tracking, traceability, and inspection, ranging from basic barcode reading to complex machine vision inspection, identification, and measurement.

As an ISO 9001:2008 certified company recognized for quality leadership in the U.S., Microscan is known and trusted by customers worldwide as a provider of quality, high precision products. Microscan is a [Spectris](#) company.

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