
At the show, the new M-710iC/50H robot equipped with the iRVision® line tracking will track and pick randomly-oriented cased product from an infeed conveyor and place them on an outfeed conveyor in tray formation at high speeds. Product will then transfer back to the infeed conveyor, and the process repeats. DCS Speed and Position Check Software restricts the travel of the robot to the exact area in which it works.

Designed for high-speed transferring and packing, the five-axis M-710iC/50H robot offers a larger work envelope than previous-generation packing robots. It also offers a compact size, which allows it to work in small spaces. In addition, the new robot features enclosed motors and cables, and is rated IP65 which enables it to withstand dust and low pressure cleaning.

“The new M-710iC/50H is an ideal solution for food, beverage and general packaging customers,” said Wes Garrett, product manager, FANUC Robotics America. “It operates with the same speed and reliability as our previous-generation packing robot, with a variety of enhancements including a larger work envelope, a 2.0m reach, a 50kg payload, and better protection for severe dust and liquid environments.”

The new M-710iC/50H offers the R-30iB Power Regeneration option, which means the new robot helps reduce energy consumption.

“FANUC Robotics and our integration partners take a comprehensive approach to understanding our customers’ businesses,” added Garrett. “The results are flexible, robotic solutions that meet today’s and tomorrow’s production requirements for greener manufacturing.”

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The M-710iC/50H robot offers a wide range of benefits, including:

- Compact size allows operation in small workspaces.
- Five axis design and a slim wrist allow high-speed transferring and case packing.
- Supports iRVision, ROBOGUIDE/PickPRO Simulation, PickTool, ROBOGUIDE/PalletPRO Simulation, PalletTool, Force Sensing, Line Tracking, and Indexing options.
- Rated IP65 to withstand dust and low pressure cleaning.
- Offers largest work envelope in its class (three times larger than previous packing robots).
- Upright or invert mounting accommodates a wide range system designs.

FANUC iRVision

FANUC iRVision is a truly integrated, plug-and-go vision system that runs on the standard CPU of every FANUC R-30iB controller without any additional hardware. A single source solution developed and supported by FANUC, iRVision offers easy setup and operation for factory environments requiring 2D and 3D guidance, error proofing, visual tracking, and quality control – all with FANUC’s world-renowned reliability.

Next Generation R-30iB Controller

The FANUC R-30iB Controller uses high-performance hardware and the latest advances in network communications, integrated iRVision, and motion control functions. The R-30iB Controller features FANUC’s exclusive new and easy-to-use iPendant with 4D graphics. The iPendant displays process information and the actual process path directly on the iPendant screen, enabling easier setup and troubleshooting.

Based on the latest FANUC Series 30iB CNC Controller, the R-30iB Robot Controller is compact, providing customers a significant space savings. The R-30iB Controller is also energy efficient, requiring less power consumption than previous models, and available with an optional power regeneration feature.

Dual Check Safety (DCS) Speed and Position Check Software

Prior to the application of safety rated robot software, all safeguarding of the robot needed to be external, and required a safety rated limit switch or cam system, safety rated area scanners, or other devices to limit robot travel or enhance protection. DCS safety rated robot software allows the safety design of the robot system to use the robot itself for some of the safety functions.

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The most significant benefit of DCS Speed and Position Check is in applications where the travel of the robot needs to be restricted due to floor space or process limits that are less than the full reach of the robot. Restricting the robot motion in Cartesian space means the robot can be restrained to exactly the area in which it works; something that is not possible with the current systems that limit robot motion externally using limit switches.

"By moving some of the safety functions to within the robot, customers will realize significant savings in floor space, flexibility in system layout, reduced hardware costs, and improved reliability," said Claude Dinsmoor, general manager, material handling segment, FANUC Robotics.

In addition, safe "zones" can be enabled and disabled from an external source such as a safety PLC (based on the cell design). Designing a system with multiple zones and appropriate guarding means an operator can safely enter and leave the workspace of the robot.

"This streamlines the design of robot cells because it prevents the robot from entering the load area when an operator is present," added Dinsmoor. This type of application is possible with existing technology, but it is typically difficult to setup, expensive to implement, and requires more floor space than a system using DCS."

FANUC Robotics America designs, engineers and manufactures industrial robots and robotic systems for a wide range of applications including arc and spot welding, material handling (machine tending, picking, packing, palletizing), material removal, assembly, paint finishing and dispensing. The company also provides application-specific software, controls, vision products, and complete support services. After 30 years of success, FANUC Robotics maintains its position as the leading robotics company in the Americas. A subsidiary of FANUC CORPORATION in Japan, the company is headquartered in Detroit, and has facilities in Chicago; Los Angeles; Charlotte; Cincinnati; Toronto; Aguascalientes, Mexico; and Sao Paulo, Brazil. Contact FANUC Robotics at www.fanucrobotics.com or by calling 1-800-iQ-ROBOT, option 5. Also visit us on YouTube, Facebook, Twitter, and Google+.

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