For Immediate Release


FANUC will feature the following interactive demonstrations:

Zero Downtime (ZDT)

ZDT is FANUC’s new diagnostic tool that detects critical information about the robot’s mechanical, maintenance and process/system health to alert customers about potential system or product issues. Customers with a dedicated ZDT app are notified of robot conditions via their smart device so they can monitor robot status at any time.

At the show, a FANUC LR Mate 200iD/4S robot equipped with ZDT runs a program transferring pipe sections between fixtures. In the demonstration, pressing the red button in the cell forces the robot to gradually increase the aggressiveness of its motion during the program. The ZDT software is able to identify this increased torque and send the data to a server for analysis. This data is then sent to the ZDT application running on an iPad in the cell to show the torque increase as the motion becomes more aggressive.

“Attendees will be able to press the red button causing an increase in applied torque. This increase will be passed from the robot to the iPad, or other smart devices that have the ZDT app, and will display the increased torque as it increases above desired levels,” said Gordie Geheb, director of product development, FANUC America. “In production, ZDT will help reduce customer downtime and increase efficiency.”

“Visitors can also browse ZDT data for any robot running at IMTS,” added Geheb.

Remote Connectivity

Remote Connectivity provides the ability to monitor and control a FANUC robot remotely with an HMI/user interface, a smart tablet or a PC without needing a Teach Pendant.

At the show, a FANUC LR Mate 200iD/4S will highlight the following options:

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• **Remote iPendant**, where a virtual pendant runs on the remote device allowing for full control of the robot from outside the workcell.
• **4D Graphics** which allow the user to see the robot, cell, tooling and DCS zones in real time on the HMI.
• **EDA (Enhanced Data Access)** enables easy sharing of data between the robot and an Allen Bradley PLC using an EtherNet IP connection. This option allows the user to easily setup the data to be shared from the robot teach pendant, and output a file from the robot which can be directly loaded into the PLC programming tool. EDA makes integration of advanced functions between the robot and PLC much easier and quicker than previous methods.

“Attendees will be able to perform production and maintenance related tasks from both an Allen Bradley HMI as well as an iPad. The user will be able to control the button check application that the robot is performing, as well as maintenance level activities such as jogging or data collection, all without the need of the physical teach pendant,” said Josh Person, engineer, product development, FANUC America. “It allows for more advanced functionality with less effort than previously required.”

**ROBOGUIDE**

ROBOGUIDE is a suite of process-focused software packages that allows users to create, program and simulate a robotic workcell in 3D without the physical need and expense of a prototype workcell setup.

At IMTS, attendees will use a PC running ROBOGUIDE to trace various shapes on the part in simulation. Once they have generated their path, they can send the offline generated robot path to an LR Mate 200iD/4S robot for execution. The robot having the part used in the simulation will trace the taught path using a laser pointer, highlighting the accuracy of the offline simulation. Additional robot programming demonstrations will be provided to highlight auto path generation, cable simulation, and collision avoidance.

“ROBOGUIDE is an ideal tool for picking, packing, palletizing, bin picking arc welding, painting and ROBODRILL machine tending applications,” said Gordie Geheb, director of product development, FANUC America. “We are highlighting several new advanced simulation features that help simplify feasibility studies and reduce programming time. These benefits translate into faster integration of new systems and faster changeovers on existing equipment providing significant savings for our customers.”

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The family of LR Mate 200iD robots is a versatile solution for a wide range of manufacturing operations that require access into small spaces. A very slim arm about the same size as a human arm, and a bottom cable exit option minimize interference with peripheral devices. The LR Mate 200iD robots offer a “best in class” work envelope for both upright and invert mount installations. The LR Mate 200iD robots are also available with ISO Class 4 clean-room and food-grade variants for primary (unwrapped) food handling and healthcare packaging applications.

LR Mate 200iD Features and Benefits

- Slim arm and compact footprint minimizes interference to peripheral devices in narrow spaces.
- Four to seven kg wrist load capacity with six-axis articulation.
- Best in class work envelope simplifies system layout.
- Fastest joint axes speeds maximize system throughput.
- Integrated 24VDC power, signal and air for easy end-of-arm-tool connection.
- Integrated thru-arm cable option for iRVision, force sensing, Ethernet and auxiliary axes.
- Flexible mounting (upright, invert, angle).
- High rigidity and the most advanced servo technology enable smooth motion at high speeds.
- Easy integration into machines.
- Features lightest mechanical unit in its class.
- IP67 rating allows operation in factory environments with dust and oil mist.
- New LR Mate 200iD/4SC clean-room model is ISO Class 4 (Class 10) clean-room certified for electronics, pharmaceutical and food applications. It features a white FDA compliant coating, stainless steel wrist, and NSF-H1 grade grease on all joints to provide reliable performance in demanding production environments, including rigorous sanitation procedures.

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 America.

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.”

Next Generation R-30iB Mate Controller

The FANUC R-30iB Mate Controller uses high-performance hardware and the latest advances in network communications, integrated iRVision, and motion control functions. The R-30iB Mate Controller features FANUC’s exclusive 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 Mate Robot Controller is compact, providing customers a significant space savings. The R-30iB Mate Controller, available with a compact rack-style open-air controller cabinet or an industrial grade standard Mate cabinet, is very energy efficient and requires less power consumption due to its availability in both single-phase and three-phase versions.

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About FANUC America Corporation

FANUC America Corporation is a subsidiary company of FANUC Corporation in Japan, and provides industry-leading CNC systems, robotics, and ROBOMACHINEs. FANUC’s innovative technologies and proven expertise help manufacturers in the Americas maximize efficiency, reliability and profitability.

For more information about FANUC America Corporation, please call: 888-FANUC-US (888-326-8287) or visit our website: [www.fanucamerica.com](http://www.fanucamerica.com). Also, connect with us on [YouTube](https), [Twitter](https://twitter.com), [Facebook](https://www.facebook.com), [Google+](https://plus.google.com) and [LinkedIn](https://www.linkedin.com). FANUC America is headquartered at 3900 W. Hamlin Road, Rochester Hills, MI 48309, and has facilities in: Atlanta; Boston; Charlotte; Chicago; Cincinnati; Cleveland; Dallas; Indianapolis; Los Angeles; Minneapolis; Montreal; Pine Brook, NJ; San Francisco; Toronto; Buenos Aires, Argentina; Sao Paulo, Brazil; and Aguascalientes, Mexico City and Monterrey, Mexico.

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