ABB at the INTERNATIONAL ROBOT EXHIBITION 2013

IN FOCUS: The future of robots and humans working together

ABB’s Dual Arm Concept robot showcases a real-world example of collaborative and flexible manufacturing at iREX 2013, held in Tokyo from November 6-9.

November 6, 2013

- **Collaborative**: Dual Arm Concept can be safely and easily deployed next to humans on an assembly line
- **Real-world verification**: Development driven by demanding small parts assembly experience in the real world
- **A complete system**: Feeders, grippers, sensors, force control and robot work in unison to create flexible system
- **Future of small parts assembly**: Prototype previews an upcoming product from ABB to address market demands
- **ABB booth location**: East 2 Hall, IR2-63

In the last 20 years the world has changed at an incredibly fast pace—sometimes making it hard to even remember what life was like before laptops, Internet and the now-ubiquitous smartphone. This popular explosion of portable and always-connected consumer devices with incredible computing power has changed how the world works and interacts in ways that will continue to ripple for generations. And while society plays witness to these direct effects, behind the scenes the changes have had an equally large impact on concepts about how manufacturing and small parts assembly can meet the demands of consumers.

“When we think about the future of manufacturing and what our partners around the world need, it becomes clear that the solution requires a radical departure from the thinking of the past,” says Per Vegard Nerseth, Head of ABB Robotics. “Small parts assembly—particularly in the electronics market—requires incredibly flexible and self-configuring automation that can be easily and safely deployed next to humans. Our test fleet of Dual Arm Concept robots is out in the real-world collecting the data that is driving product development in this regard.”

The constantly changing product requirements and work environment of a modern electronics manufacturing plant demand modular and adaptable automation. A robotic system for this environment will have integrated sensors for inspection, flexible material transfer to move product from one station to the next, will be quick to set up and teach to do any given task, and will be safe for humans to work next to on the same line.

As part of this dynamic factory environment, the robot itself will not be able to exist on its own but will only operate as part of a system. Successful deployment in a situation like this requires accurate vision, dexterous grippers, sensitive force control feedback, flexible software and built-in safety features that collectively allow for programming through teaching rather than coding.

At iREX 2013 ABB Robotics has taken the opportunity to present a vision of what this solution could look like in the real-world by presenting just one of the development projects for a Dual Arm Concept prototype robot. The cell on display has been operating in an actual manufacturing environment for many weeks and has assembled tens of thousands of eStop switches for one of our ABB Low Voltage businesses. We are also working in very close collaboration with other selected blue chip companies so that when we come to market it will be with tried and tested robust solutions that work out of the box from day one.

“In the last few years ABB has invested extensive R&D funds into developing and delivering a solution for small parts assembly that also delivers on our reputation for quality and reliability,” says Nerseth. “The Dual Arm Concept itself is just one part of that development process. Within a couple of years we will deliver a system of products based on our real-world experiences with the Dual Arm Concept that will change the face of small parts assembly forever.”
Further information for editors:

ABB (www.abb.com) is a leader in power and automation technologies that enable utility and industry customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 145,000 people.

ABB Robotics is a leading supplier of industrial robots - also providing robot software, peripheral equipment, modular manufacturing cells and service for tasks such as welding, handling, assembly, painting and finishing, picking, packing, palletizing and machine tending. Key markets include automotive, plastics, metal fabrication, foundry, electronics, machine tools, pharmaceutical and food and beverage industries. A strong solutions focus helps manufacturers improve productivity, product quality and worker safety. ABB has installed more than 200,000 robots worldwide.

All ABB Robotics' products are fully supported by the ABB Robotics' global sales and service organization in 53 countries and over 100 locations.


For more information please contact:
Insert local ABB Robotics organization details here:
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