OmniCore™ Controllers

A new era of digital robot control to increase flexibility, reliability and performance

Henrik Jerregard, ABB Robotics Product Management
New ABB OmniCore™ robot controller family offers broadest motion control options, more tailored solutions for the connected “Factory of the Future”
OmniCore™ Controllers
Introducing a new era of flexible, digital robot control

The best made even better
- The first offering from ABB’s new era of flexible, intelligent and tailored solutions
- A impressive range of controllers to deliver the ideal solution for every need.
- Designed for the rigorous performance and reliability needed to support 24/7 production of high-mix, low-volume products in shorter product cycles
- Significant size reduction for installation space savings.
- With the same superior precision, cycle times and speed that ABB is renowned for the new controllers can tackle the toughest challenges.

The new controller family

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OmniCore™ Small Robot Controller
OmniCore™ compactness and performance in harmony

**Small in a big way!**
- Versatile, compact, fast – Three little words, that deliver a whole lot of power.
- Offering 50% reduction in size and enhanced integration capabilities without any compromise on performance.
- ABB’s newest small controller can tackle your toughest challenges in a big way!

**Key Benefits**
- Significant size reduction and flexible mounting possibilities
- Best-in-class motion control and path accuracy
- Impressive versatile offering incl. wide variety of fieldbuses, vision systems and sensors
OmniCore™ Small Robot Controller

50% reduction is size combined with an array of flexible integration possibilities

**Built-in Version**
- Optimized to be built-in
- 19” rack mounting kit available
- Vertical mounting kit available

**Desktop Version**
- Optimized for easy integration
- Elegant cable management
OmniCore™ Small Robot Controller

Installations kits for built-in version

19” rack mounting kit
- Rack mounting kit for installation in standard 19” cabinet
- Rack mount is very efficient way to save floor space and keep the controller protected from though environments

Vertical installation kit
- Allows the controller to be installed standing vertical without compromising cooling.
- Also included a hanging bracket for hanging the controller on its backside
OmniCore™ Small Robot Controller

Supported manipulators

**Small in a big way!**

- OmniCore™ small is designed to support new small robots
- For first release single arm YuMi® will be supported
- Other supported robots will be rolled out gradually
OmniCore™ Controllers
For high performance and seamless digitalization

Ensures convenient connectivity

- The ABB Ability™ digital platform and ABB Ability Connected Services are built into all our new controllers
- Improve performance and reliability of single robots or entire fleets
- Through our services and expertise turn data into the direct actions and value
- Simply power on and connect

A connection solution for every need

- A selection of solutions to receive the connection matching all needs
  - Mobile connection
  - WiFi connection
  - Wired connection
OmniCore™ Controllers
Fully prepared with SafeMove2

Enable collaboration & floor space saving
– The OmniCore controllers comes fully prepared with SafeMove2
– Allow people and robots to safely work closer together without compromising productivity.

Key benefits
– Allow people and itself to work more closely together without the need of safety cages
– Enables lean, flexible and more economic robot solutions
– Facilitates human/robot collaboration
The new FlexPendant

- Modern, intuitive and powerful
- Large capacitive multi-touch display with standard gestures such as pinch, swipe and tap as on a smartphone
- Hot swappable - unplug during operation and share among several robots
- Extensive customization possibilities
The new FlexPendant

Hardware Features

- **Emergency Stop**
- **MultiTouch Display**
- **Rugged IP54 casing**
- **Hardbuttons for common operations** including 4 user programmable
- **3-dimensional joystick for intuitive robot movement**
- **3 position enabling device ensures safety**
- **USB 3 interface**