Solutions that Allow the Assembly of Small or Varying Lots with Modular Automation Compatible Products

The key to Modular Automation is the realization of the “Flexibility within the Production Line Layout”. Modular Automation products support the next generation of automation.

Today’s challenge is to create flexible and reliable manufacturing lines to meet tomorrow’s manufacturing requirements. To achieve this, more and more companies are working on modularization, which allows the line configuration to be rearranged according to the situation.

As an increasing number of manufacturing locations are working on automation to replace common tasks, such as transporting products, assembly lines and work performed in difficult-to-access areas, Modular Automation compatible products are a group of products designed to support this direction.

The Flexible Automation Line Concept

- The production line is lightweight and features modular processes
- Eliminates the routing of AC power lines
- Able to be reconfigured many times as needed

Elements Needed to Achieve

- Battery-powered / DC power input / lightweight & compact

Solution - Modular Automation Compatible Products

Modular Automation Products are a group of products that share the common features of being battery-powered, compact and lightweight. Optimized for use in self-propelled devices and mobile equipment, they contribute to the realization of flexible automation lines and mobile automation.

**Articulated Arm Type**
- Transportation Robots

**Lifting and Lowering Type**
- Transportation Robots

**Conveyor Type**
- Transportation Robots

For Example, These Motor & Drivers Can Contribute to Flexibility within the Production Line Layout.

**Articulated Arm Type Transportation Robots**
- DC Input Motors
- Hollow Rotary Actuators
- Rack-and-pinion Systems
- mini Drivers
- RS-485 Communication Type
- Electric Linear Slides
- Electric Grippers
- Compact Electric Cylinders

**Lifting and Lowering Type Transportation Robots**
- Lifting and Lowering Equipment
- Rack-and-pinion system
- Conveyor

**Conveyor Type Transportation Robots**
- Conveyor

**Vertically Articulated Robot**
- Articulated drive/AZ Series motor, mini driver
- Hand/electric gripper/EH Series, mini driver
- Robot controller/MRC01

**Lifting and Lowering Equipment**
- Rack-and-pinion system
- Conveyor
- BLV Series R Type

**Transportation Robot (Wheel Drive)**
- BLV Series R Type

Work Transportation Robots Between Each Process

Flexible Modified Module Line Adapted to the Production

**Brushless Motors**
- BLV Series R Type

**AZ Series mini driver & motor/actuator**
- Oriental Motor’s *α-step* is now equipped with a newly developed absolute mechanical encoder, no back up battery required. The AZ Series mini driver has been designed to be compact and lightweight, freeing up valuable cabinet space. Combine it with the wide product selection of the AZ Series.

**Robot Controllers**
- MRC01
  - Multi-axis robot controller, easy to use, program, ideal for in-house built applications.

**Brushless Motors**
- BLV Series R Type
  - Redesigned, compact driver and motor. Slow speed, 1 rpm up to 4,000 rpm. Designed to support battery-powered applications.

**DC Input Motors**
- BLV Series R Type

**Hollow Rotary Actuators**
- Mini Drivers

**Rack-and-pinion Systems**
- RS-485 Communication Type

**Electric Linear Slides**

**Electric Grippers**

**Compact Electric Cylinders**

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