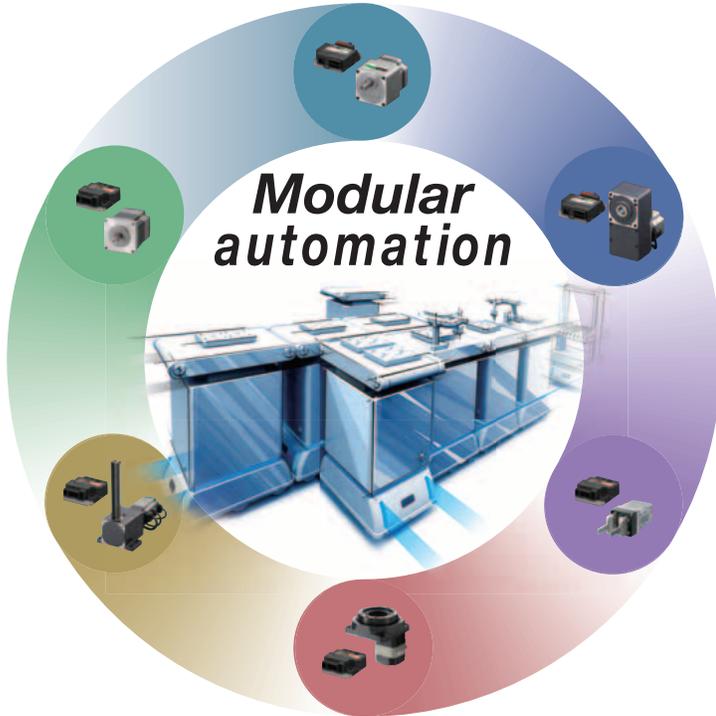


## Solutions that Allow the Assembly of Small or Varying Lots with Modular Automation Compatible Products



# Modular

- Flexibility in Production Layout
- Resolve Labor Shortage
- Productivity Improvements
- Space Saving
- High-Mix, Low-Volume Production
- Energy Saving

**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

# The New Conceptual Product Line, Moves, Combines and Creates Work Cells, Automatically.

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.

## $\alpha$ STEP AZ Series mini driver & motor/actuator

DC Input Motors



Hollow Rotary Actuators



Rack-and-pinion Systems



mini Drivers  
**RS-485** Communication Type



Electric Linear Slides



Electric Grippers



Compact Electric Cylinders

Oriental Motor's  $\alpha$ 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.

EtherNet/IP



## 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.

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

Articulated Arm Type  
Transportation Robots



Lifting and Lowering Type  
Transportation Robots



Conveyor Type  
Transportation Robots



Vertically Articulated Robot **A B**

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

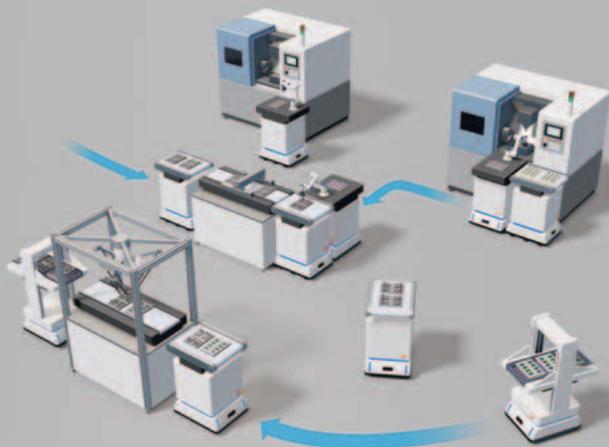
Lifting and Lowering Equipment **C**

Rack-and-pinion system **L** Series  
Conveyor **D**  
**BLV** Series **R** Type

Transportation Robot (Wheel Drive) **E**

**BLV** Series **R** Type

Work Transportation Robots Between Each Process



Flexible Modified Module Line Adapted to the Production



●EtherNet/IP™ is a trademark of ODVA (Open DeviceNet Vendor Association).

[www.orientalmotor.com](http://www.orientalmotor.com)