

Product Description

The Omni Automation TMROR is a top module with a robotic arm that performs various tasks throughout a facility. These robotic arms utilize a Collaborative Robot with a payload capacity of up to 10 KG. These robots can be used to retrieve product, perform manufacturing tasks, or work along-side humans in industrial manufacturing. These can be used in Manufacturing Facilities, Institutions, and Warehouses.

The combination of flexible robotic automation with autonomous navigation provides a very adaptive solution for ever changing manufacturing processes. The robot end of arm tooling can be a vacuum gripper, mechanical gripper or a host of other tools. When docked at a work station these mobile robots can perform tasks with an accuracy of up to plus/minus 1mm. Operating on Lithium Ion Batteries these robotic arms can operate for hours before recharging.



When the TMROR arrives at a docking station the robot communicates with the fixed automation over Wi-Fi or Bluetooth to signal the process to begin. Once the process is completed, the mobile robot is signaled to continue its mission to other locations in the facility.

Specifications

TMROR

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Robot Arm Capabilities	The robotic arms are available in 3 kg, 5kg and 10kg payloads.
Accuracy	Once docked, these robots have a +/- 1mm accuracy and repeatability.
Range of Motion	These six axis robots have +/- 360-degree base rotation and a reach of 19" (3 kg unit), 33" (5 kg unit) and 51" (10 kg unit).
Degrees of Freedom	These robots have 6 rotating joints each with a +/- 360-degree range of freedom.
Onboard I/O	The robot has 16 input and 16 outputs for customer signals. These I/O points are all 24 VDC.
Collaborative Operation	15 advance adjustable safety functions. TÜV NORD Approved Safety Function tested in accordance with: EN ISO 13849:2008 PL d.
Temperature Range	0-50 degrees C.
End of Arm Connectivity	There is a M8 connector at the end of the arm that has 2 inputs, 2 analog inputs and 2 outputs. All 24 VDC.
Battery	Second MiR battery required. Up to 8 hours between charges.
Options	Options include mechanical grippers, vacuum grippers, vacuum pumps, vision systems, barcode readers, special end of arm tooling and fixturing, and additional batteries. Various platform elevations are also available.

Contact Omni Automation for information on additional top modules or custom top modules.

Mobile Robots



The **MiR100™** is a safe, cost-effective mobile robot that quickly automates your internal transportation and logistics. This 100kg payload robot optimizes workflows, freeing staff resources so you can increase productivity and reduce costs. This robot has a towing capacity of 300kg.



The **MiR200™** is a safe, cost-effective mobile robot with a 200kg payload capacity. This mobile robot has a towing capacity of 500kg.

Common Top Modules

TMRC



The Omni Automation **TMRC** is a powered roller conveyor that mounts on top of these robots. A mobile robot with a **TMRC** top module can autonomously transport product, materials, supplies, parts or good in Manufacturing Facilities, Institutions and Warehouses.

TMSU



The Omni Automation **TMSU** is a top module that provides adjustable shelving positions for autonomously transporting product, materials, supplies, parts or good in Manufacturing Facilities, Institutions and Warehouses.

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TMBC



The Omni Automation **TMBC** is a powered belt conveyor that mounts on top of these mobile robots. A mobile robot with a **TMBC** top module can autonomously transport product, materials, supplies, parts or good in Manufacturing Facilities, Institutions and Warehouses.

Contact Omni Automation for information on additional top modules or custom top modules.