

Product Description

The Omni Automation TMTC is a gravity roller conveyor that mounts on top of the MiR 100 or MiR 200 Mobile Robot. The unique feature of the TMTC is that the conveyor tilts, using an electric actuator, to either discharge cargo or to receive cargo. When the mobile robot with the TMTC top modules arrives at a docking station the actuator raises the gravity conveyor to cause the cargo to slowly roll off the top module onto a docking station. When the mobile robot with a TMTC top modules arrives at a docking station to receive cargo the top actuator lowers the conveyor to receive cargo. When in transport mode the top module is in the lowered posture to keep the cargo from moving. The MiR 100 or 200 robot with a TMTC top module can autonomously transport product, materials, supplies, parts or good in Manufacturing Facilities, Institutions and Warehouses.



When the mobile robot arrives at a destination the conveyor top modules is signaled through a Wi-Fi or Bluetooth data interface to either unload the cargo or to receive the cargo. Sensors on the TMRC top module signal the MiR robot to continue on its mission once the cargo is received or discharged.

Using additional sensors, the TMTC can be programmed to discharge or receive multiple loads at a single or multiple destinations. These top modules can discharge or receive loads from existing conveyor systems using our **ORP** Interface module. We also offer motorized roller docking conveyors that will communicate directly with the TMRC top modules for a Plug & Play installation.

Specifications

TMTC

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Conveyor Dimensions	Conveyor length is 36" long, available conveyor widths are 15", 18" and 24".
Top of Roller Elevation	Once mounted on the top of the MiR robot these conveyors can be built to a Top of Roller elevation from 26" to 36".
Roller Speed	The rollers are gravity driven and do not have a specific speed.
Roller Drive System	Gravity Rollers with a fixed stop.
Roller Diameter	Each roller is 1.9" in diameter.
Weight Capacity	The maximum conveyor payload capacity is 100 lbs.
Communications	These top modules communicate with the MiR robot and the host system by Wi-Fi or Bluetooth.
Operator Interfaces	Touchscreen operator interfaces are optionally available and can be mounted to the Top Module.
Sensors	Each top module includes one photoelectric sensor to detect the presence of the payload. Additional sensors are available. Sensors are also used with the actuator to set (adjustable) the tilt elevations of the gravity conveyor.
Battery	Second MiR battery required. Up to 8 hours between charges.
Options	Fixed stops to prevent payload from exiting one end, docking sensors, custom conveyor lengths, widths and elevations are available, additional batteries for extended run time.

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.

TMROR



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.

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.