MiR100

The MiR100 is a safe, cost-effective mobile robot that quickly automates your internal transportation and logistics. The robot optimizes workflows, freeing staff resources so you can increase productivity and reduce costs.

Designated use

Autonomous Mobile Robot (AMR)	For smaller transport tasks within the industry, logistics, and healthcare

Dimensions

Length	890 mm / 35 in
Width	580 mm / 22.8 in
Height	352 mm / 13.9 in
Weight (without load)	70 kg / 143 lbs
Ground clearance	50 mm / 2 in

Color

RAL color	RAL 9010 / Pure White

Payload

Robot payload	100 kg / 220 lbs (maximum 5% incline)
Towing capacity	300 kg / 660 lbs (see MiR100 Hook specifications)

Speed and performance

Battery running time	10 hours or 20 km / 12 mi
Maximum speed	Forwards: 1.5 m/s (5.4 km/h) / 4.9 ft/s (3.6 mph)Backwards: 0.3 m/s (1 km/h) / 1.0 ft/s (0.7 mph)
Turning radius	520 mm / 20 in (around center of robot)
Positioning accuracy	+/- 50 mm / 2 in of position, +/- 10 mm / 0.4 to docking marker
Traversable gap and sill tolerance	20 mm / 0.8 in
Minimum corridor width	1.0 m (default footprint)
Turning diameter around obstacle/wall	No load: 1.3 m, full load: 1.3 m (default footprint). No load: 1.2 m, full load: 1.1 m (minimized footprint)
Product design life	5 years or 20.000 hours, whichever comes first
Minimum distance between chargers	100 mm

Power

Battery	Li-NMC, 24 V, 40 Ah
Charging time	With cable: up to 4.5 hours (0-80%: 3 hours)With charging station: up to 3 hours (0-80%: 2 hours)
External charger	Input: 100-230 V ac, 50-60 Hz Output: 24 V, max 15 A
Charging options	MiRCharge 24V, Cable Charger

Environment

Ambient temperature range	+5°C to 40°C (humidity 10-95% non-condensing)
IP Class	IP 20
Compliance and approvals	CE, EN1525, ANSI B56.5, ISO13849-1, EN61000-6-2 & EN61.000-6-4, Clean Room Certified (ISO Class 4)
Environment	For indoor use only

Noise level	60-64 dBA (depending on surface)

Communication

WiFi	Dual-band wireless AC/G/N/B
Bluetooth	4.0 LE, range: 10-20 m / 33-66 ft
I/Os	USB and Ethernet

Sensors

SICK microScan3 safety system (2 pcs.)	SICK safety laser scanners S300 (front and back) 360° visual protection around robot
3D camera (2 pcs.)	3D camera Intel RealSense™ Detection of objects ahead 50-1800 mm above floor
Ultrasound sensors	4 pcs.

Top module

Maximum height from floor to top	1800 mm / 70 in
Center of gravity	< 900 mm / 35 in above the floor