

Powerful mid-sized mobile robot with cutting-edge performance and safety.

The OMRON MD Series Autonomous Mobile Robot (AMR) brings a new range of payload capacity to the OMRON mobile robot lineup.

The OMRON MD Series mobile robot adds 650kg and 900 kg payload options to an industry-proven line of OMRON autonomous mobile robots with payloads ranging from 60 kg to 1500 kg. Designed for industrial manufacturing and warehouse logistics operations, the MD Series can work collaboratively with humans and is an ideal choice for pallet-moving applications where pickup and drop-off stands can be used. Designed with a global audience in mind, the MD Series can accommodate European, US, and Asian pallet sizes.

Simple Integration

The MD Series can be easily and quickly added to existing OMRON mobile robot fleets using the industry-leading Fleet Manager. This provides customers with access to powerful fleet-management tools including FLOW Core software suite for managing and improving fleet management.

Safety and Efficiency

Using the highly successful HD-1500 as a basis for design, the MD Series includes several technological advances that make it a best-in-class AMR. The MD-650 boasts a class-leading top speed of 2.2 meters/second. Leveraging advanced battery and charging technologies, the MD Series

provides eight hours of runtime with a charging time of less than 30 minutes for a industry-best 16:1 uptime ratio.

The MD Series uses advanced LiDAR systems and can adjust its safety zones based on speed and rotation. In addition, dual zone sets are available for switching safety footprints when picking up and dropping off payloads that change the overall safety profile of the robot. With on-board advanced navigation and obstacle avoidance algorithms the MD Series is capable of full reverse navigation. This enables the robot to operate in tighter aiseways for reduced cycle time, driving overall throughput up while reducing total cost of ownership.

Natural Feature Navigation

The MD Series is equipped with a Natural Feature Navigation system which enables the AMR to navigate and perform its basic functions independently and without the need for facility modification. After it scans physical features in its environment, the AMR navigates safely and autonomously to any accessible destination.

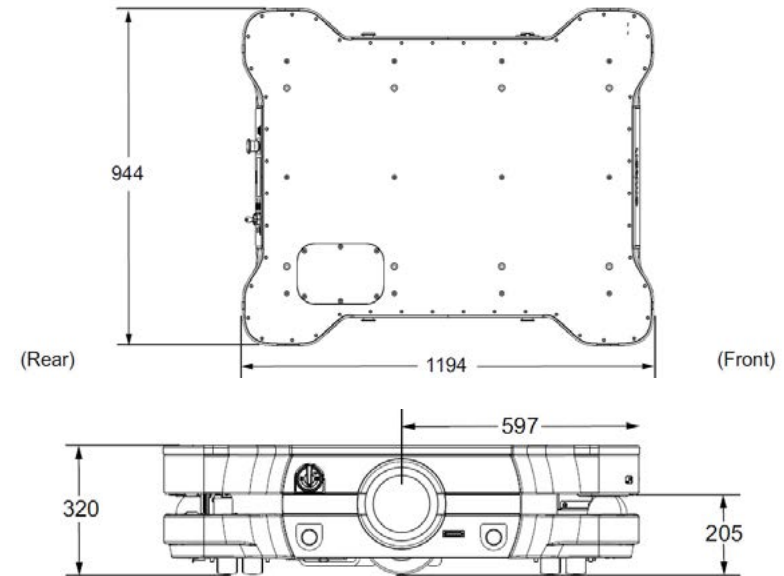
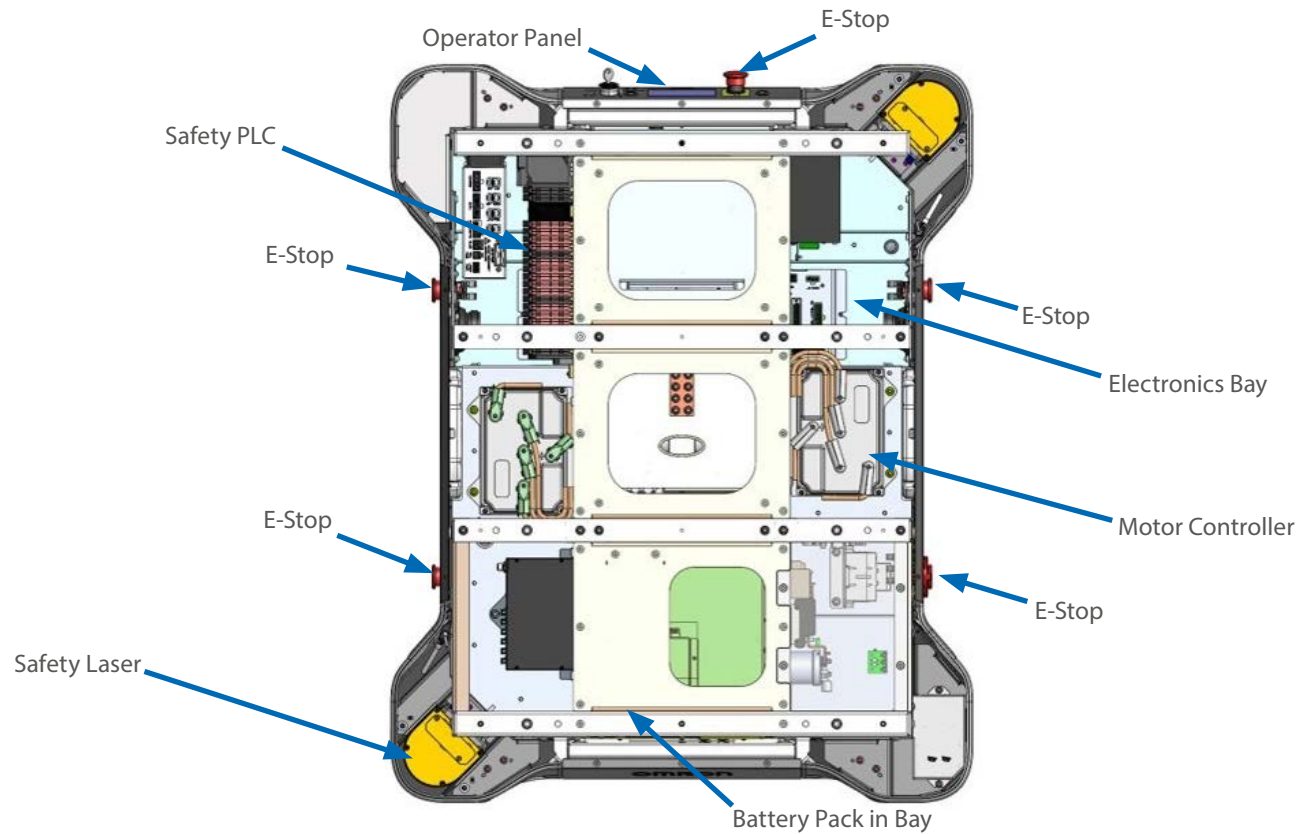
Key Features

- 650 kg or 900 kg payload capacity
- Based on the same proven technology used in the HD series
- 360° safety coverage with LiDAR technology
- Eight-hour runtime with less than 30-minute charging time (5%-95%)
- Top speed of 2.2 m/s (MD-650) and 1.8 m/s (MD-900)
- Capable of autonomous reverse navigation
- Switchable footprint
- Fully compliant with ISO 3691-4 and ANSI/RIA R15.08



OMRON MD Series Autonomous Mobile Robot

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Item	Value
Maximum payload capacity	650 kg / 900 kg
Width	944 mm
Length	1194 mm
Height	320 mm
Vehicle Weight	249 kg
Speed	MD-650: 2.2 m/sec MD-900: 1.8 m/sec
Run time	Full payload: 8 hours No payload: 10.5 hours
Charge Time (5%-95%)	< 30 minutes
Turn radius	0 mm

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