

OMRON

Meet the

OL-450S

Autonomous Mobile Robot

Built for cart and load carrier transport, the OL-450S combines a compact, low-profile design with flexible lift capability for a wide range of applications. Designed for quick deployment, it offers a turnkey solution with easy integration into existing operations. Optional mast accessories add elevated scanning for improved localization in dynamic environments.



Payload
450 kg



Lift Range
108 mm - 308 mm



Speed
1.2 m/s



Safety Coverage
360°



Elevated Scanning
Optional mast with 360° scanner

Solving Real-World Material Handling Challenges

- Existing manual carts
- Mixed automation systems
- Customized solutions
- Integration complexity
- Layout and space constraints
- Environmental constraints

Why Manufacturers Choose OL-450S

- **Supports standard and custom carriers:** Fits existing cart workflows without redesigning the application around the robot.
- **Designed for low-clearance transport:** The compact, low-profile design moves under carts and through narrow aisles in space-constrained layouts.
- **Flexible lift range for mixed applications:** The 108–308 mm lift range supports varied pickup heights across cart and carrier designs.
- **Navigates dynamic environments:** Omni-directional movement and advanced sensing enable smooth transport in busy, shared spaces.
- **Powered by FLOW Core:** OMRON's proven fleet management software delivers visibility and coordinated multi-robot control.
- **Wireless charging included:** Enables flexible deployment without charging contacts or manual plug-in.
- **Optional mast accessories available:** Add elevated 360° scanning for improved navigation.

Experience the Benefits of OL-450S

Reduced Downtime



Keep operations moving with up to 7 hours of runtime, fast recharging from 20% to 80% in as little as 25 minutes, and autonomous charging for continuous operation.

Application Versatility



Support standard and custom carriers with a turnkey cart transport solution designed for multiple workflows across production and intralogistics.

Improved Material Flow



Move materials efficiently between lines, stations, and tasks to streamline handoffs, reduce delays, and help maintain steady production output.

Higher Productivity



Automate repetitive transport tasks to reduce manual handling, minimize delays, and keep operators focused on higher-value work.

Increased Safety



Operate confidently in shared spaces with intelligent safety features that support safe movement around people, carts, and equipment.

Repeatability + Consistency



Deliver dependable transport performance that supports consistent material movement, smoother flow, and more predictable operations.



**Start automating your
cart transport today**



**Scan to learn more
about the OL Series**

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