

LBR 500

Autonomous Mobile Robot

The LBR 500 is a compact, free-lift AMR built to optimize cart movement in low-clearance environments. It is compatible with diverse trolley designs, and seamlessly deployable within existing layouts.



1 HUMAN-SAFE OPERATIONS



- ✓ PLd category 3 certified
- ✓ Laser safety fields respond before a person gets close
- ✓ No cages
- ✓ No zone restrictions

2 LOW BED TROLLEY HANDLING



- ✓ 100 mm (3.93 in) standard lift height
- ✓ 500 kg (1102.31 lbs) payload capacity
- ✓ Variable-width trolley handling capability from 550 mm to 1600 mm (21.65 in to 63 in)

3 AUTONOMOUS NAVIGATION



- ✓ Detects obstacles in time, reroutes autonomously without interruption
- ✓ No floor tape, no manual intervention, no down-time

4 INTEROPERABLE ARCHITECTURE



- ✓ VDA 5050 compliant
- ✓ Enables vendor-agnostic scalability

5 REAL-TIME ALERTS & STATUS INDICATION



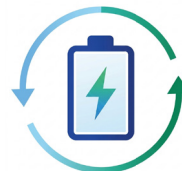
- ✓ Audio alerts for operator notification
- ✓ No screen dependency

6 MULTI-SIDE STATUS LIGHTING



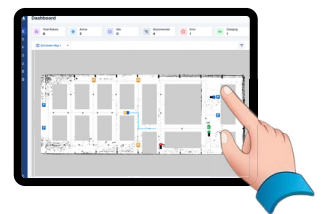
- ✓ LED indicators
- ✓ Workers know the robot's intent before it reaches them

7 OPPORTUNITY CHARGING



- ✓ Autonomous opportunity charging during task intervals sustains continuous operation without scheduled downtime

8 BUILT-IN MISSION CREATOR



- ✓ Configure tasks, update routes, and adapt to layout changes on the fly
- ✓ No programmer required, just an intuitive interface your team can own

Technical Specification



Sensors

- 2D LiDAR - 2 units
- 3D LiDAR - 1 unit
- 3D Camera - 2 units



Communication

WiFi (2.4/ 5GHz)
802.11 (b/n/ac)



Max. Speed

4.32 km/h
(1.2 m/s or 2.68 mph)



Vertical Lift

100 mm (3.93 in)



Safety Control

PLd cat. 3 Safety Scanners,
Emergency Stop buttons
- 2 units



Dimensions

1260 x 655 x 1270 mm
(49.60 x 25.78 x 50 in)



Max. Payload

500 kg (1102.31 lbs)



Charging Time

2 Hours



Docking Accuracy

X,Y : ± 10 mm (0.39 in)
Yaw : $\pm 1.5^\circ$



Run Time

8 Hours