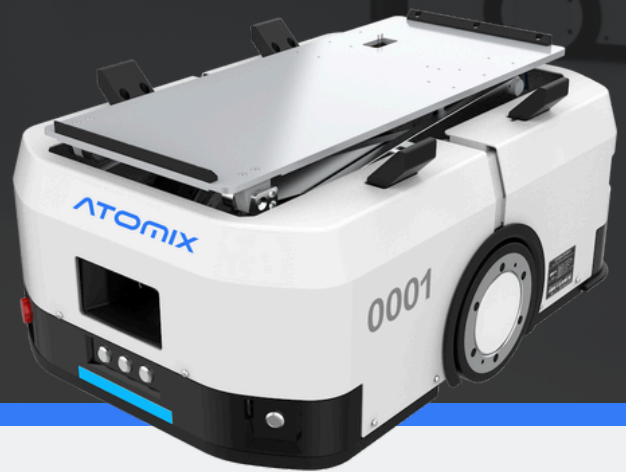# BIN AMR
# ATOM-T50

Bin Handling Autonomous Mobile Robot Designed for Efficient Handling of Bins, Cartons and other Containers

## Safety Protection

- Intelligent obstacle avoidance and safety collision systems ensure the safety of both operators and equipment.
- Wide safety monitoring coverage, with a laser radar range of up to 200°.

## Intelligent Collaboration

- Wide lifting range, from 305mm to 805mm, with rapid lifting speeds of up to 60mm/s.
- Ergonomically designed to adapt to picking positions, improving picking efficiency by over 30%.

## Low-Carbon Operation

- Three synchronized motors optimize efficiency, consuming <0.8 kWh/hour for energy savings.
- 1C fast charging enables 7 minutes of charge for 1 hour of operation.

## Quick Deployment

- With a standardized design, it takes only hours to complete deployment
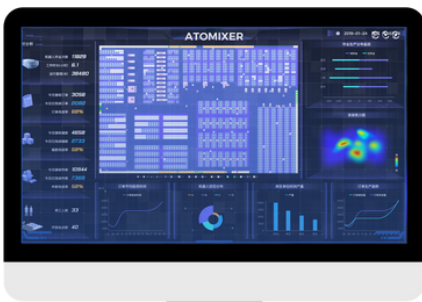- Intelligent indexing learning, with each code point learning time as short as 15 seconds, enabling rapid deployment.

# Specifications

ATOMIX

| Overview | | |
|---|---|---|
| | Dimensions (length×width×height) | 660*460*305 mm(including guide) |
| | Rotation Diameter | 715 mm |
| | Weight | 60 kg |
| | Payload | 50 kg |
| | Climb distance | 500 mm |
| | Bin Size | 600*400 mm |
| | Navigation | QR code+IMU |
| **Performance** | Max. Speed Unloaded / Loaded | 4 / 2 (m/s) |
| | Max. Acc Unloaded / Loaded | 2 / 1.5 (m/s$^2$) |
| | Positioning Accuracy | ±10 mm |
| | Stop Position& Angle Precision | ±5 mm & ±1° |
| | Traversable Gap and Sill Tolerance | 5mm step, 30 mm GAP |
| | Max. Gradeability | 5° |
| **Battery** | Charging Voltage | 51.2V 15Ah |
| | Cycles Life (Times) | Complete charge and discharge for 2000 times |
| | Battery Life in Use | 6-8H (related to working conditions) |
| | Charging Time | SOC 0-100% charging time ≤ 2H |
| **Safety** | Laser Obstacle Radar（Front） | Max. Detection Angle 200 ° |
| | Emergency Stop Button | Yes, Two |
| | Sound-light Alarm | Yes |
| **Communication** | Wi-Fi | 802.11 a/b/g/n Wi-Fi，2.4G/5G |
| **Environment** | Ambient Temperature | -10℃~45℃ |
| | Ambient Humidness | 5%~90% Non-Condensing |

# Software - Atomixer



With 50+ advanced algorithms, Atomixer enables efficient management of robots, containers, and orders. Its modular design and flexible APIs allow seamless integration as a black box, grey box, or white box.

Its highly modular design and flexible API interfaces ensure effortless integration and adaptability, making it a versatile solution for diverse operational needs.

- Comprehensive functionality
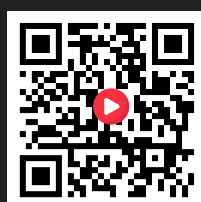- Advanced algorithms
- Easy to use
- Stable and reliable


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