

## Technical Specifications

# OTTO 100

OTTO 100 is a compact and powerful autonomous mobile robot (AMR), designed to move boxes, bins and carts up to 150 kg across countless person-to-person applications. With a durable all-metal body and the latest safety-rated equipment, OTTO 100 is built to operate safely and effectively in the toughest manufacturing environments.



### RELIABLY RUGGED

With an all-metal body, rely on OTTO 100 to continue moving your materials in challenging environments, year after year.

### INTEGRATED LIFT

Carry a wide range of items in a simple, economical way by seamlessly pairing its integrated lift with an OTTO Cart.

### DIVERSE WORKFLOWS

From lineside delivery to work-in-progress transport, OTTO 100 can easily shift between workflows.

### PERFORMANCE

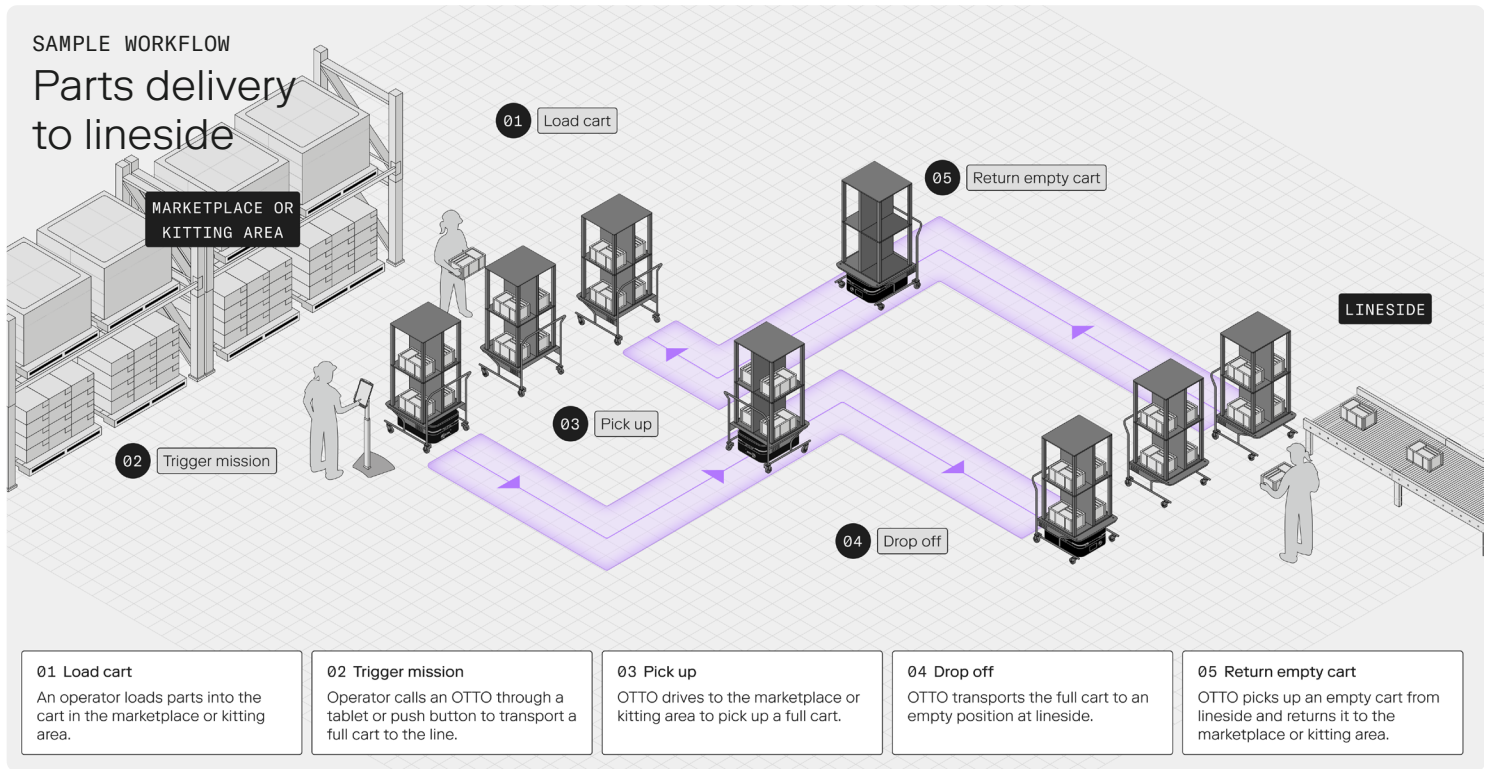
Max. Capacity	150 kg (331 lbs) Includes payload, attachments, and cart, if any	Max. Turning Speed	1.25 rad/sec (75°/sec)
Max. Speed	2.0 m/sec (4.5 mph)	Max. Docking Speed	0.3 m/sec (0.7 mph)
Docking Accuracy Standard	± 10 mm (x,y), ± 1° φ (yaw) Repeatable to 3σ	Min. Aisle Width (One Way)	1099 mm (43 in)
Docking Accuracy Precision Upgrade <sup>1</sup>	± 5 mm (x,y), ± 1° φ (yaw) Repeatable to 3σ	Min. Aisle Width (Two Way)	1975 mm (78 in)
<small><sup>1</sup>Requires OTTO High Accuracy Docking System (HADS) upgrade, sold separately</small>		Integrated Lift	62 mm (2.44 in) stroke, 150 kg capacity

### CHASSIS

Dimensions	740 x 550 x 308 mm (29.1 x 21.7 x 12.1 in)	Suspension	Fixed, Rigid
Mass	107 kg (236 lbs)	Ground Clearance	6 mm (0.25 in)
Turning Radius	Turn in place	Floor Obstacle	13 mm (0.5 in)

### ACCESSORIES (SOLD SEPARATELY)

Charging	Autonomous Supercharger (98 A) Manual Trickle Charger (25 A)
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**ENERGY SYSTEM**

Battery Capacity	35 Ah	Battery Voltage	26.4 V
Runtime (90% to 10%)	6 hr	Battery Life	10,000 full charge cycles
Max. Charge Rate	98 A	Battery Charging Options	Autonomous Opportunity Charging (Default) Manual Charging
Charge Time (10% to 90%)	18 min		

**SAFETY SYSTEM**

E-Stop	2 E-Stops (front and back) + user E-Stop circuit interface	Standards Compliance	CE marked, ANSI/ITSDF B56.5, RIA R15.08-1, ISO 12100/13849-1/3691-4, FCC Part 15 Subpart B / ICES-003, ICES-002, EN 1175-1/60204-1
Manual Control	Guided autonomous control available via OTTO software interface.		

**AUTOMATION INTERFACE**

Power Interface	26.4 VDC, 12 A max, unregulated	Safety Interface	2x E-stop extension, 8x Digital IO, 2x dry contact relays, 1x Auxiliary Monitor Contact
Signal Interface	1x Ethernet, 1x USB 3.0, 1x serial RS-232		

**CONTROL SYSTEM**

Sensors	Hokuyo Safety Laser Scanner, 3D Camera with 90° front coverage, ToF rear sensor with 90° reverse coverage Inductive cart detect sensor	Communication	WiFi 2.4 / 5 GHz (802.11 a/b/g/n/ac)
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**ENVIRONMENTAL**

IP Classification	IP20	Temperature	20 to 40° C
		Humidity	0-95% non-condensing

For more information visit [ottomotors.com/100](http://ottomotors.com/100)  
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