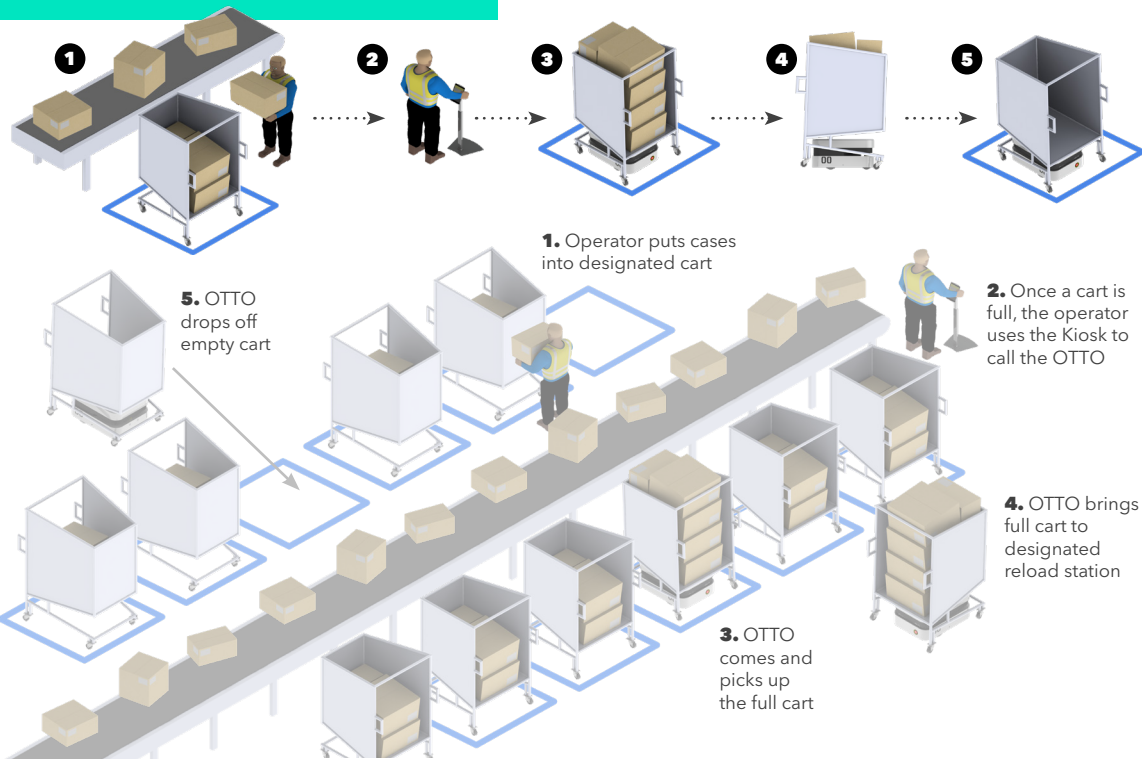




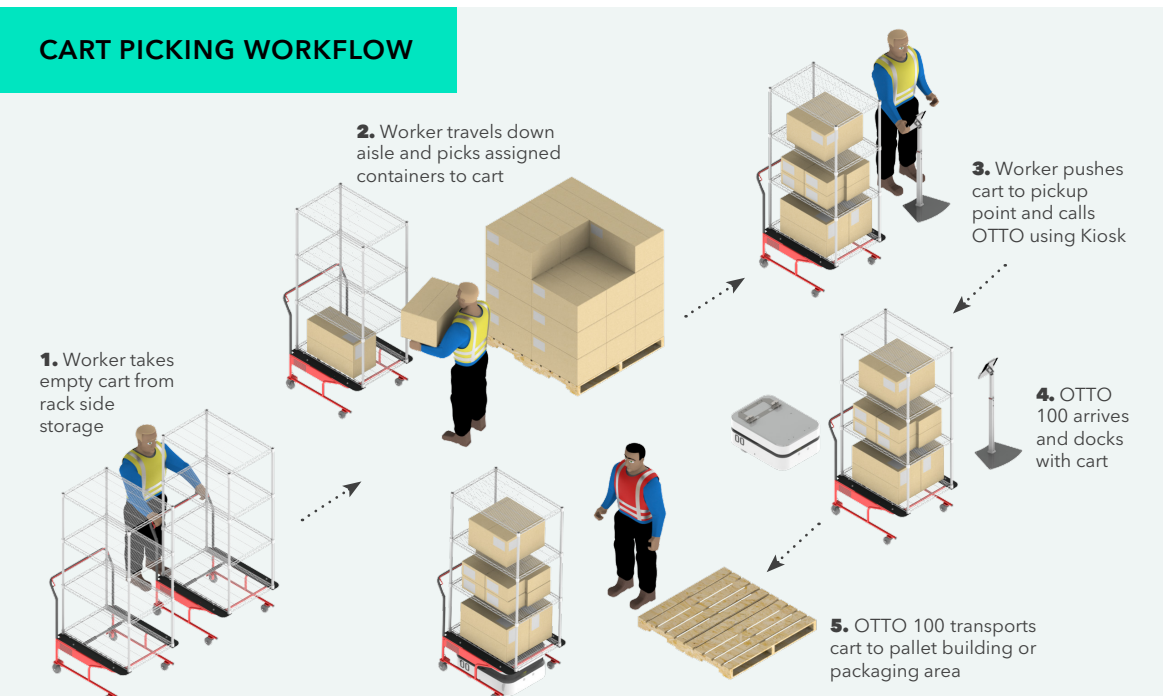
Automate Workflows in Your Facility

The OTTO 100 is an industrial strength Autonomous Mobile Robot (AMR) that safely moves boxes, bins, carts and other lightweight payloads to increase material handling throughput in factories and warehouses.

UNLOAD STATION WORKFLOW



CART PICKING WORKFLOW



REDUCE COSTS

OTTO reduces time wasted and variability with manual material handling by operating on a lean approach.



ADDRESS LABOR SHORTAGES

At up to 10% the cost of an FTE, OTTO AMRs enable businesses to address labor shortages and eliminate FTE spend on low value and repetitive work.



ACHIEVE ENTERPRISE SCALE

Unlike other AMR providers, OTTO Motors' customers are able to operate at scale with 1 to 100 robots to optimize productivity.



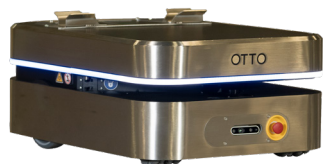
OPTIMIZE PRODUCTION

OTTO enables flexibility in materials handling and faster product cycles that can ramp up and down based on demand.



IMPROVE SAFETY

OTTO Motors AMRs are uncompromising when it comes to safety with customers reporting a 100% safety rating.



OTTO 100 v2.5

OTTO 100 is an industrial strength Autonomous Mobile Robot (AMR) that safely moves boxes, bins, carts and other payloads up to 150 kg to increase material handling throughput in factories and warehouses.

PERFORMANCE			
Max. Payload	150 kg (331 lbs)	Max. Turning Speed	1.25 rad/sec (75°/sec)
Max. Speed	2.0 m/s (4.5 mph)	Max. Docking Speed	0.3 m/sec (0.7 mph)
Docking Accuracy Standard	± 10mm (x,y), ± 1°φ (yaw) Repeatable to 3σ	Min. Aisle Width (One Way)	1099 mm (43 in)
Docking Accuracy Precision Upgrade¹	± 5mm (x,y), ± 1°φ (yaw) Repeatable to 3σ	Min. Aisle Width (Two Way)	1975 mm (78 in)
		Integrated Lift	62 mm (2.44 in) stroke, 150 kg capacity

CHASSIS			
Dimensions	740 x 550 x 308mm (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	Traversable Gap	13 mm (0.5 in)

ENERGY SYSTEM			
Battery Capacity	40 Ah	Battery Voltage	26.4 V
Runtime (10% to 90%)	6 hr	Battery Life	3,000 full charge cycles
Max. Charge Rate	40 A	Battery Charging Options	Autonomous Opportunity Charging (Default) Manual Charging
Charge Time (10% to 90%)	60 mins		

SAFETY SYSTEM			
E-Stop	2 E-Stops (front and back) + user E-Stop circuit interface	Standards Compliance	ISO EN 12100, ISO EN 13849-1, ISO 3691-1 (supercedes EN 1525), EN 60204-1, CE, FCC
Manual Control	Guided autonomous control available via OTTO software interface		

AUTOMATION INTERFACE		CONTROL SYSTEM	
Power Interface	26.4 VDC, 12A max, unregulated	Sensors	Hokuyo Safety Laser Scanner, 3D Camera with 90° front coverage, ToF rear sensor with 90° reverse coverage
Signal Interface	1x Ethernet, 1x USB 3.0, 1x serial RS-232	Communication	WiFi 2.4 / 5 GHz (802.11 a/b/g/n/ac)
Safety Interface	2x E-stop extension, 8x Digital IO, 2x dry contact relays, 1x Auxiliary Monitor Contact		

ACCESSORIES (Sold Separately)		ENVIRONMENTAL	
Load-Handling	Staging Cart (130 kg) Magnetic Line Follower	IP Classification	IP20
Charging	Autonomous Supercharger (40 A) Manual Trickle Charger (25 A)	Temperature	20° to 40° C
		Max. Humidity	95%, non-condensing

Footnotes:

¹ Requires OTTO High Accuracy Docking System (HADS) upgrade, sold separately

For more information visit www.ottomotors.com
or call us toll-free at **1-844-733-6886**