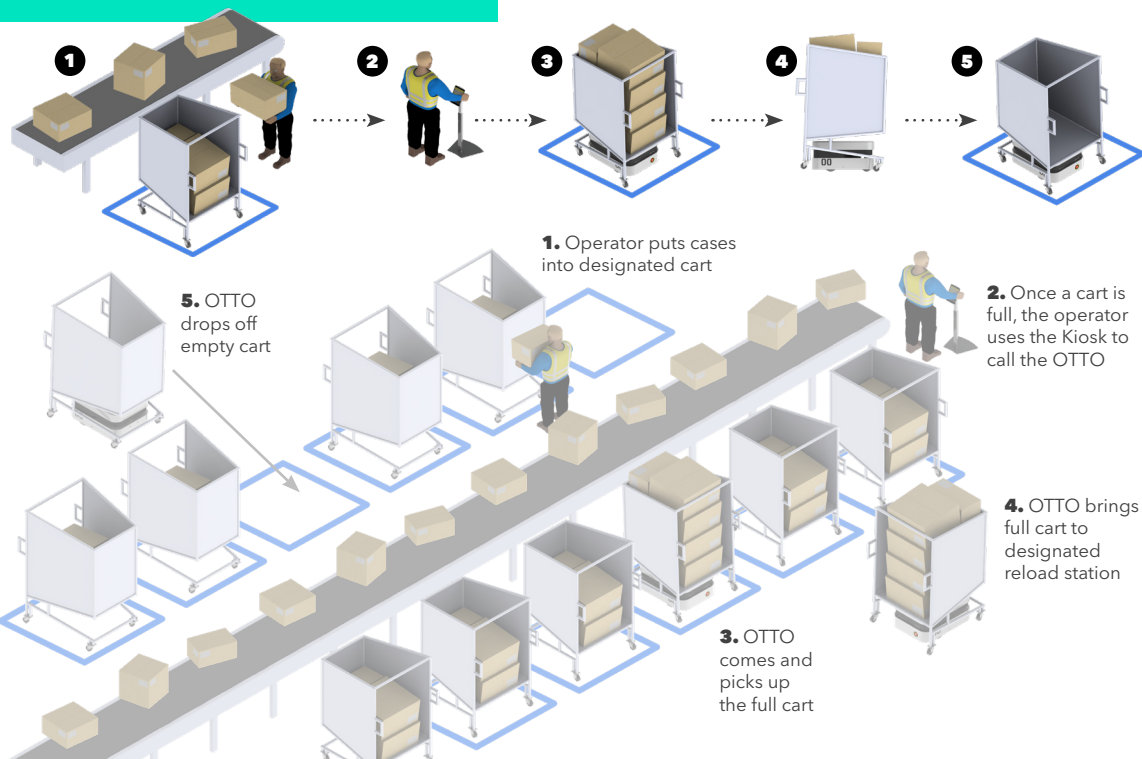


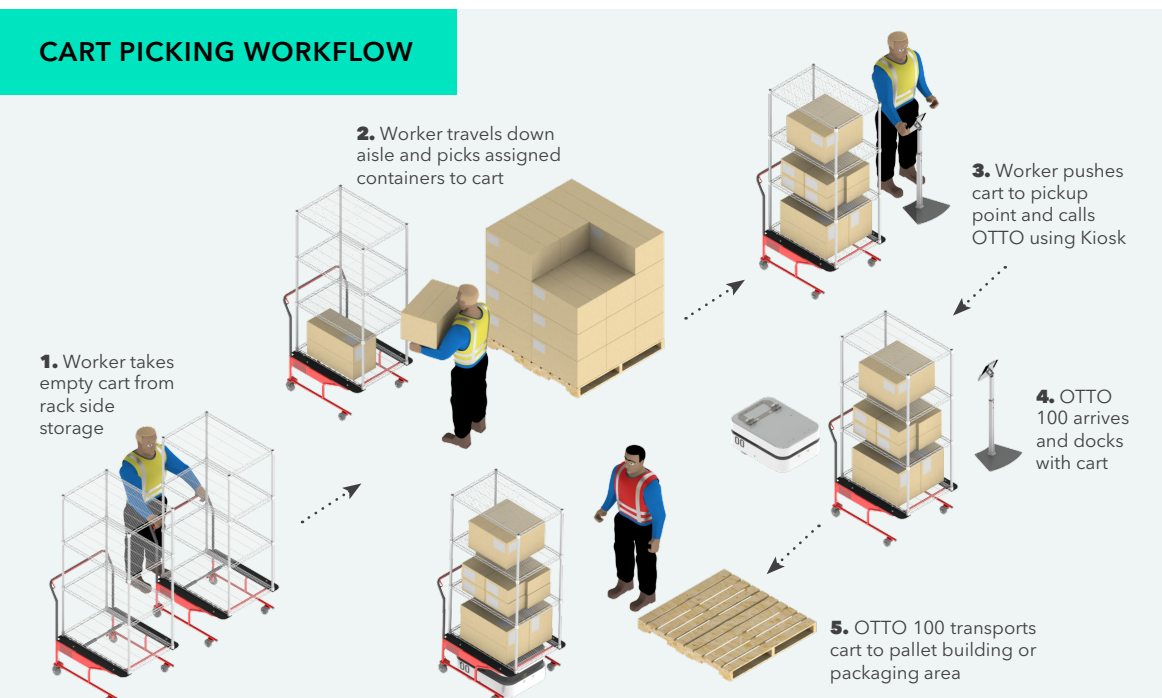
## Automate Workflows in Your Facility

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.



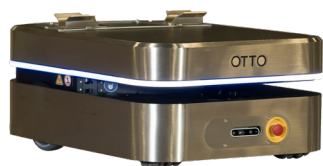
### OPTIMIZE PRODUCTION

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

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

### CHASSIS

<b>Dimensions</b>	740 x 550 x 308mm (29.1 x 21.7 x 12.1 in)	<b>Suspension</b>	Fixed, rigid
<b>Mass</b>	107 kg (236 lbs)	<b>Ground Clearance</b>	6 mm (0.25 in)
<b>Turning Radius</b>	Turn in place	<b>Traversable Gap</b>	13 mm (0.5 in)

### ENERGY SYSTEM

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

### SAFETY SYSTEM

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

### AUTOMATION INTERFACE

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

### CONTROL SYSTEM

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

### ACCESSORIES (Sold Separately)

<b>Load-Handling</b>	Staging Cart (130 kg) Magnetic Line Follower
<b>Charging</b>	Autonomous Supercharger (40 A) Manual Trickle Charger (25 A)

### ENVIRONMENTAL

<b>IP Classification</b>	IP20
<b>Temperature</b>	20° to 40° C
<b>Max. Humidity</b>	95%, non-condensing

#### Footnotes:

<sup>1</sup> Requires OTTO High Accuracy Docking System (HADS) upgrade, sold separately

For more information visit [www.amrobotics.eu](http://www.amrobotics.eu)  
or call us at +31(0) 547 388 599