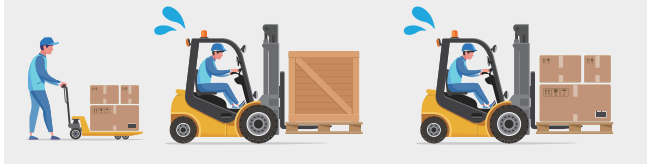
TOSHIBA

Improve productivity and storage efficiency in the warehouse

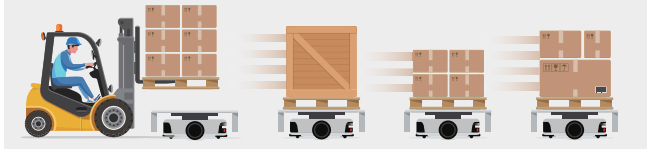
Autonomous Mobile Robots (AMRs)

Automate pallet transportation

Issue Need to secure forklift operators



Benefit Operation with minimum workers

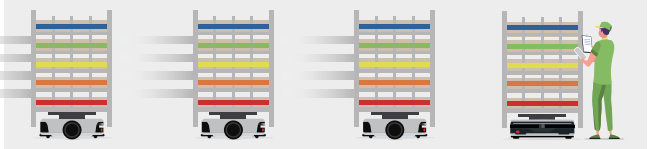


By automating the transport and rearranging of pallets in warehouses and manufacturing sites, forklift movement can be reduced. As the AMRs are able to carry heavy loads stably, safe transportation over long distances is possible. Special pallet PODs (carriers) allow direct placement of pallets on the AMR, enabling collaboration with conveyors and other robots.

Automate picking work

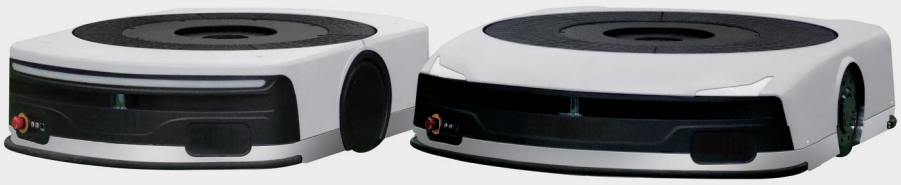
Issue Stressful walking and searching in the warehouse

Benefit Reduce walking time, increase throughput



Reduce operator workload, and increase picking throughput by letting the AMRs search and transport goods to the operators. Accommodate goods of different sizes and shapes by freely adjusting the shelf spaces inside the PODs (shelves). Increase space efficiency by closely consolidating PODs (shelves).

AMR Product Details



*The images are for reference only.

Products	T6-800	T6-1200／1500
Dimensions	W980×D680×H245mm　W38.58×D26.77×H9.65in.	W1160×D860×H245mm　W45.67×D33.86×H9.65in.
Weight	160kg　352.74lb	220kg　485lb.
Maximum payload	800kg　1,763.7lb	1200kg/1500kg　2,645.55lb./3,306.93lb.
Obstacle avoidance method	Lidar obstacle avoidance	Lidar obstacle avoidance
Obstacle detection angle	210° in direction of travel	210° in direction of travel
Lifting height	60mm　2.36in.	60mm　2.36in.
Lifting speed	2.5 second	2.5 second
Rotating diameter	980mm　38.58in.	1160mm　45.67in.
Positioning accuracy	±10mm　±0.4in.	±10mm　±0.4in.
Comprehensive battery life	8 hours	12 hours
Time until full charge	less than 1.5 hours	less than 2 hours
Operating temperature	0~50°C (-20°C optional)　32~122°F (-4°F optional)	0~50°C (-20°C optional)　32~122°F (-4°F optional)
Permissible level difference	5mm　0.2in.	5mm　0.2in.
Required floor flatness	≦5mm/m²　≦0.02in./ft.2	≦5mm/m²　≦0.02in./ft.2
Communication method	Wi-Fi 2.4GHz/5GHz	Wi-Fi 2.4GHz/5GHz
Safety	Traffic control, Lidar obstacle avoidance, contact sensor	
Warning methods	Lights, sound	

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