

SLAM Based Autonomous Outdoor logistics

GT-XT 1000



Load Type

The GTT 1000 is a versatile robot engineered for material movement across industrial settings. With a remarkable towing capacity of up to 1 ton, it efficiently transports heavy loads, offering enhanced productivity. Designed to seamlessly attach to any trailer, it streamlines material movement processes within industries. Its adaptability extends to both indoor and outdoor environments, offering flexibility across various operational landscapes. The GTT 1000 embodies reliability and efficiency, providing seamless integration into diverse industrial workflows. Whether navigating tight indoor spaces or outdoor terrains, this robot optimizes material handling operations, ensuring smooth and efficient logistics management.

 **SLAM Capability**
Dynamic Path Planning

 **Precise Localization**
±5 Cm

 **Robust Construction**
Designed For Industry Use

 **Obstacle Avoidance**
15 Cm

 **No Need Of New Alteration**
During Deployment

 **Carrying Capacity Options**
Handles Up To 1 Tons

Manufacturing: Streamlines material handling tasks on assembly lines, aiding in loading and unloading heavy components.

Warehousing: Optimizes inventory management by efficiently moving and organizing pallets and containers.

Logistics: Enhances distribution processes by automating order picking, packing, and sorting operations.

Automotive: Assists in vehicle assembly processes, handling large components and sub-assemblies.

Aerospace: Supports manufacturing processes by transporting aircraft parts & materials within production facilities.

Food and Beverage: Facilitates packaging, palletizing, and sorting tasks in food processing plants and beverage distribution centers.

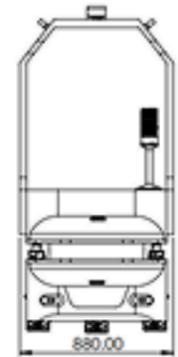
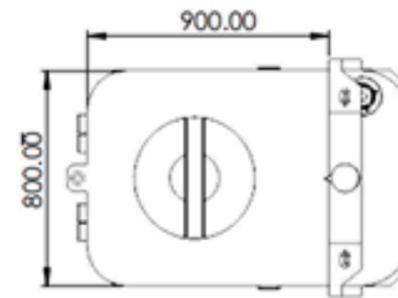
Pharmaceuticals: Enhances efficiency in pharmaceutical manufacturing by automating material handling and product packaging.

E-commerce: Improves order fulfillment processes in e-commerce warehouses by automating picking, packing, and shipping tasks.





TECHNICAL SPECIFICATION GT-XT1000



ROBOT DIMENSION & WEIGHT

LENGTH X BREADTH X HEIGHT (L X B X H)	1275 * 800 * 1900 (mm)
SELF WEIGHT	350 Kg
GROUND CLEARANCE	120 mm
TURNING RADIUS	800 mm Radius
SUSPENSION	Passive

PERFORMANCE & BATTERY

MAX. PAYLOAD	1000 kg
MAX SPEED	1.5 meter per second
MAX TURNING SPEED	30 degree per sec
POSITIONING ACCURACY	*±/- 5CM
MIN AISLE WIDTH	1200 mm

POWER SUPPLY

BATTERY TYPE / CAPACITY	LiFePO4 / 48Volt DC / 80Ah
RUNNING TIME	8 Hr
CHARGING TIME & TYPE	4 Hrs / Manual or Autonomous

CONTROL SYSTEM AND SENSOR

PROCESSOR	Intel chipset
OPERATING SYSTEM	UBUNTU
CONTROL MODES	Autonomous / manual / Guided
COMMUNICATION	WiFi - 802.11 a/b/g/n/ac, 2.4 Ghz & 5 Ghz with antenna and Bluetooth
SENSORS	1X 3D Lidar, 2X2D Lidar 1X IMU, 2X Encoder, 1X depth camera, optional ultrasonic sensors, optional bumper sensor
STANDARD LEADOUTS	USB, External Emergency Port, ON/Off and Reset switch

ACCESSORIES

MANUAL CHARGER	Default
AUTONOMOUS CHARGER DOCKER	Optional
LIFTING/ CONVEYOR/TOWING/ SHELF STRUCTURE SYSTEMS	Optional

NAVIGATION

AUTONOMOUS MODE	SLAM + Visual
OBSTACLE AVOIDANCE	Pause play mode / Avoidance mode
PATH PLANNING	Defined path or natural navigation

SAFETY

OBSTACLE AVOIDANCE	Laser scanner / Depth camera / ultrasonic sensor
EMERGENCY SAFETY	Bumper sensor / Emergency stop button

ENVIRONMENT

OPERATING TEMPERATURE	5 to 40 Deg celcius
HUMIDITY	95% Non condensing
ALLOWABLE SLOP	Near level (3%)
IP Rating	IP21