SLAM Based Autonomous Mobile Robot

GT 100

Conveyor

Towing

Cobot

Shelf

Lifting

A 100kg Payload Industrial Robot For Material Management, Adaptable To Any Application Layer, Features Robust Construction And Modular Design. It Accommodates Heavy Loads Using Powerful Motors And Actuators (If Lifting Operation Is Required). The Robot Supports Various End Effectors, Facilitating Diverse Tasks. Equipped With A Sophisticated Control System. It Can Be Used For Seamless Integration With External Devices And Systems If Needed. Safety Measures Include Obstacle Avoidance And Emergency Stop Functionalities. Connectivity With Wi-Fi Enable Seamless Communication With Manufacturing Environments. Designed For Scalability And Flexibility, It Effortlessly Integrates Into Evolving Industrial Setups, Enhancing Efficiency And Adaptability Across Sectors.

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
100/250/400 Kg

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.

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

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

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

Logistics: Enhances distribution processes by automating order picking, packing, and sorting operations.
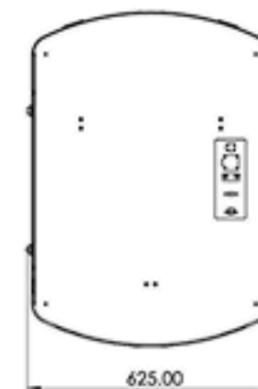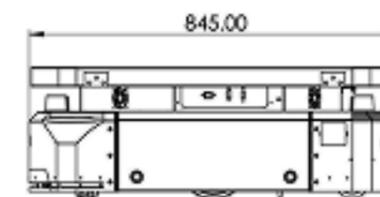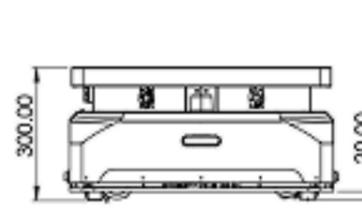
Pharmaceuticals: Enhances efficiency in pharmaceutical manufacturing by automating material handling and product packaging.

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

TECHNICAL SPECIFICATION GT 100

845.00

300.00

20.00

625.00

ROBOT DIMENSION & WEIGHT	
LENGTH X BREADTH X HEIGHT (L X B X H)	845 * 625 * 300 (mm)
SELF WEIGHT	80 kg / 120 kg / 140kg
GROUND CLEARANCE	20 mm
TURNING RADIUS	Zero degree In-place rotation
SUSPENSION	Passive traction rocker
PERFORMANCE & BATTERY	
MAX. PAYLOAD	100 Kg / 250 Kg / 400KG
MAX SPEED	1.2 / 1 meter per second
MAX TURNING SPEED	45 Degree per second
POSITIONING ACCURACY	*+/-5 cm
MIN AISLE WIDTH	950 mm
POWER SUPPLY	
BATTERY TYPE / CAPACITY	LiFePO4 / 48Volt DC /35 Ah| 40Ah	40 Ah
RUNNING TIME	8 HRS
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 Lidar, 1X IMU, 2X Encoder, 1 X depth camera, optional ultrasonic sensors, optional bumper sensor
STANDARD LEAD OUTS	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 PLA NNING	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
AMBIENT TEMPERATURE	Near level (3%)
IP RATING	IP 21