# CabraMove AMR Applications

Capabilities overview • Models • Integration platform (GT Studio)

*CabraMove powered by GOAT Robotics*

## Business impact

- Increase efficiency and throughput in material movement
- Improve accuracy by reducing human error on repeatable tasks
- Remove people from hazardous / strenuous movement tasks

## What makes CabraMove different

- One-stop turnkey solution with a tailor-made approach
- Supports wide variety of integration (devices + systems)
- Cloud control & fleet management; designed to scale
- Cost-effective automation for real facilities
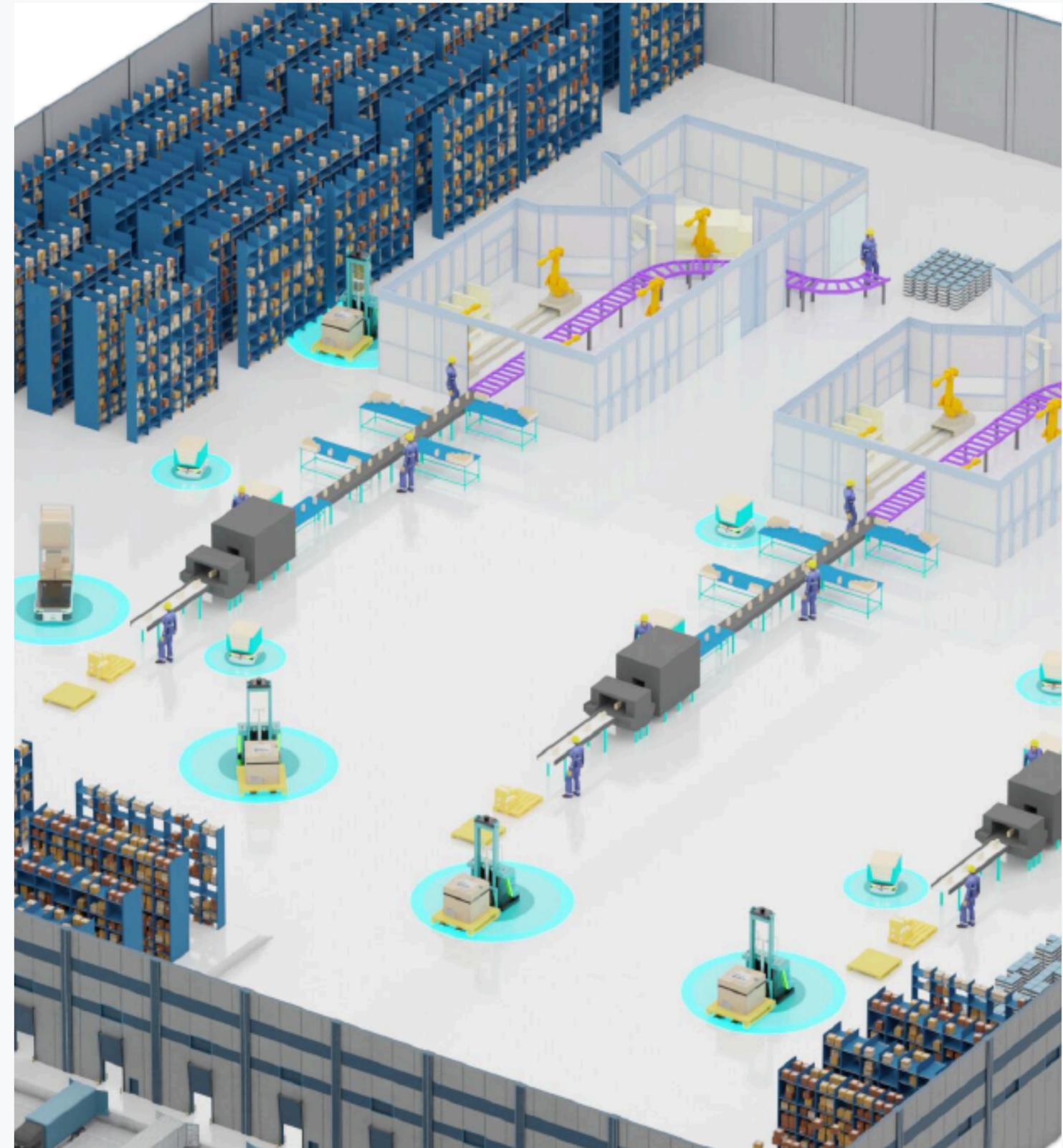
## Payload coverage

*~220–3300 lb (100–1500 kg) class*

### GT 100/250/400

Intralogistics base AMR
100–400 kg payload



### GTX 500/1000/1500

Heavy-duty base AMR
500–1500 kg payload



### GT-XP 1000

Autonomous forklift
Pallet lifting (1 ton)



### GT-XT 1000

Outdoor / towing
Trailer pull (1 ton)



Also available: Conveyor-top AMR
(customizable)

**Cabra**
**Move**

### Conveyor transfer

Move totes/cartons between workcells, sort lanes, or pack-out lines.

### Towing / carts

Pull trailers or cart trains for milk-run replenishment and kitting.

### Shelf / rack move

Bring racks to pick stations; stage WIP near assembly and test areas.

### Lift & place

Lift pallets or fixtures; integrate with docking stations and safety zones.

### Cobot pairing

Mobile cobot cell: robot brings parts; cobot performs inspection/assembly.

### Forklift + outdoor logistics

Pallet lift for indoor flows; tow for yard/line-side outdoor movement.

**Top modules**

**Intralogistics**



## Capabilities

- SLAM + visual navigation for dynamic path planning
- Zero-degree in-place rotation for tight aisles
- Supports conveyor / towing / shelf / lifting top modules
- Obstacle avoidance + emergency stop for safe operation
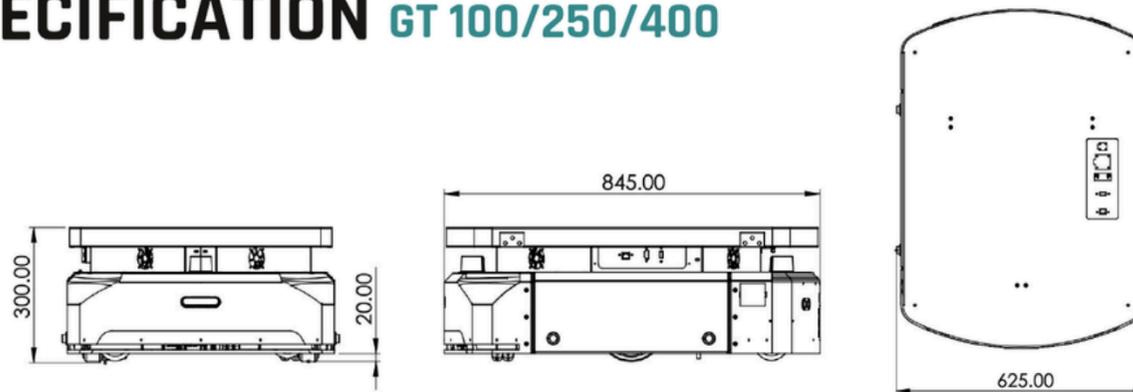
## Key specifications

- Payload: 100 / 250 / 400 kg
- Max speed: up to ~1.2 m/s
- Positioning accuracy: ±5 cm
- Min aisle width: 950 mm

- Runtime: ~8 hrs (LiFePO4 48V)
- Charging: ~4 hrs (manual or autonomous)
- Sensors: LiDAR + IMU + encoders + depth camera
- Connectivity: Wi-Fi (2.4/5 GHz) + Bluetooth

## Mechanical drawing



Tip: use this slide as a reference when planning aisle widths, docking, and safety zoning.

**Full specification table →**

| 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 |

**Cabra**
Move

**Heavy payloads**



## Capabilities

- Designed for heavy loads with robust construction + modular design
- Advanced navigation with obstacle avoidance for smooth movement
- Supports optional top structures (lifting / conveyor / towing / shelf)
- Wi-Fi connectivity for integration into factory environments

## Key specifications

- Payload: 500 / 1000 / 1500 kg
- Max speed: up to ~1.2 m/s
- Positioning accuracy: ±5 cm
- Min aisle width: 1100 mm

- Runtime: ~8 hrs (LiFePO4 48V 50Ah)
- Charging: ~4 hrs (manual or autonomous)
- Sensors: 2× LiDAR + 2× depth cameras (plus IMU/encoders)
- Ground clearance: 39 mm; in-place rotation

## Mechanical drawing



TECHNICAL SPECIFICATION GTX 500/1000/1500
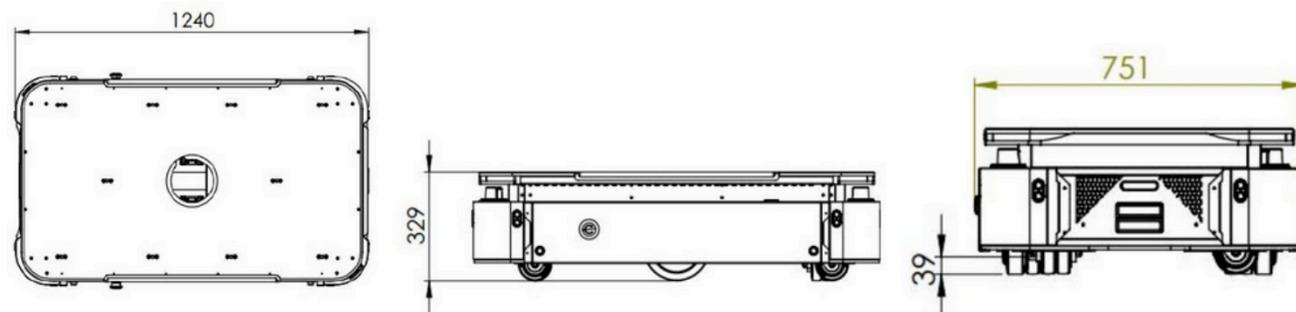
Tip: use this slide as a reference when planning aisle widths, docking, and safety zoning.

**Full specification table →**

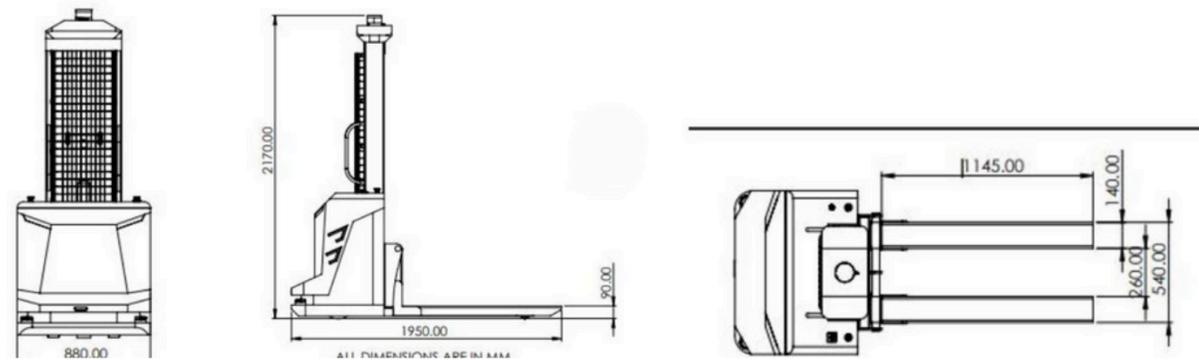| ROBOT DIMENSION & WEIGHT | |
|---|---|
| LENGTH X BREADTH X HEIGHT (L X B X H) | 1240 * 750 *329 (mm) |
| SELF WEIGHT | 170 Kg / 185Kg / 200Kg |
| GROUND CLEARANCE | 39 MM |
| TURNING RADIUS | Zero degree in place |
| SUSPENSION | Passive traction rocker |
| **PERFORMANCE & BATTERY** | |
| MAX. PAYLOAD | 500 Kg / 1000Kg / 1500kg |
| MAX TURNING SPEED | 45 / 30  Degree per second |
| MAX SPEED | 1.2  / 1 meter per second |
| BATTERY TYPE | Lithium-Ion Battery |
| POSITIONING ACCURACY | *+/- 5CM |
| MIN.AISLE WIDTH | 1100 mm |
| **POWER SUPPLY** | |
| BATTERY TYPE / CAPACITY | LiFePO4 / 48Volt DC / 50Ah |
| 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 | 2X Lidar, 1X IMU, 2X Encoder, 2 X 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 PLA NNING | Defined path or natural navigation |
| **SAFETY** | |
| OBSTACLE AVOIDANCE | Laser scanner / Depth camera / ultrasonic sensor |
| EMERGENCY SAFETY | Bumper sensor / Emergency stop button |
| **ENVIRONMENT** | |
| OPERATI G TEMPERATURE | 5 to 40 Deg celcius |
| HUMIDITY | 95% Non condensing |
| ALLOWABLE SLOP | Near level (3%) |
| IP Rating | IP21 |

**Pallet lifting**



## Capabilities

- Indoor SLAM-based autonomous forklift for pallets
- Built for confined spaces and crowded production floors
- Designed for robust material handling (1 ton class)
- Obstacle avoidance + safety bumper / E-stop

## Key specifications

- Max payload: 1000 kg
- Max speed: ~1.0 m/s
- Positioning accuracy: ±5 cm
- Min aisle width: 1300 mm

- Runtime: ~6 hrs; charging: ~3 hrs
- Sensors: 3D LiDAR + 2× 2D LiDAR + depth cameras
- Turning radius: 1200 mm
- Operating env: 5–40°C; IP21

## Mechanical drawing



Tip: use this slide as a reference when planning aisle widths, docking, and safety zoning.

**Full specification table →**

| ROBOT DIMENSION & WEIGHT | |
|---|---|
| LENGTH X BREADTH X HEIGHT (L X B X H) | 1940 * 880 *2170 (mm) |
| SELF WEIGHT | 850 Kg |
| GROUND CLEARANCE | 20 mm |
| TURNING RADIUS | 1200 mm Radius |
| SUSPENSION | Passive |
| **PERFORMANCE & BATTERY** | |
| MAX. PAYLOAD | 1000 kg |
| MAX SPEED | 1 meter per second |
| MAX TURNING SPEED | 30 degree per sec |
| POSITIONING ACCURACY | *+/- 5CM |
| MIN.AISLE WIDTH | 1300 mm |
| **POWER SUPPLY** | |
| BATTERY TYPE / CAPACITY | LiFePO4 / 48Volt DC / 60Ah |
| RUNNING TIME | 6 Hr |
| CHARGING TIME & TYPE | 3 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, 2 X 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 PLA NNING | Defined path or natural navigation |
| **SAFETY** | |
| OBSTACLE AVOIDANCE | Laser scanner / Depth camera / ultrasonic sensor |
| EMERGENCY SAFETY | Bumper sensor / Emergency stop button |
| **ENVIRONMENT** | |
| OPERATI G TEMPERATURE | 5 to 40 Deg celcius |
| HUMIDITY | 95% Non condensing |
| ALLOWABLE SLOP | Near level (3%) |
| IP Rating | IP21 |

**Trailer towing**



## Capabilities

- Versatile robot designed to attach to trailers for material movement
- Operates in indoor + outdoor environments for flexible logistics
- Optimized for smooth towing in tight spaces and yard workflows
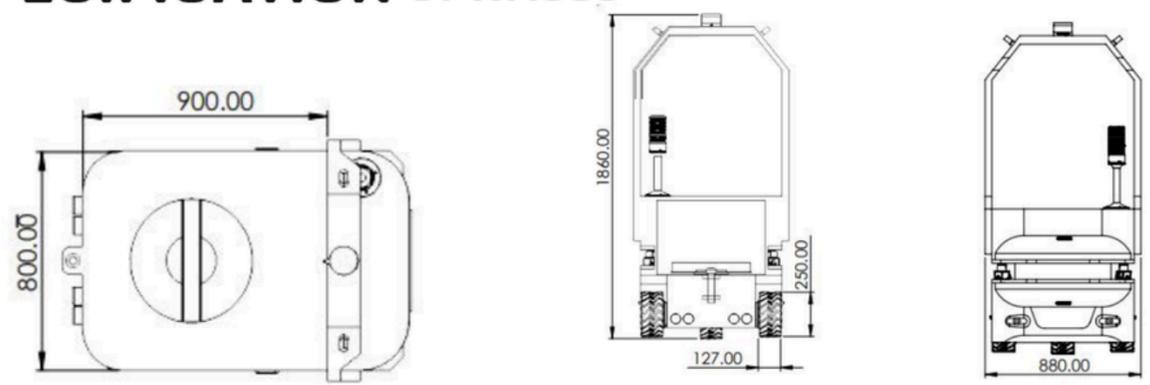- Obstacle avoidance + bumper / E-stop safety

## Key specifications

- Tow capacity class: up to 1 ton
- Max speed: ~1.5 m/s
- Positioning accuracy: ±5 cm
- Min aisle width: 1200 mm

- Runtime: ~8 hrs; charging: ~4 hrs
- Ground clearance: 120 mm
- Sensors: 3D LiDAR + 2× 2D LiDAR + depth camera
- Operating env: 5–40°C; IP21

## Mechanical drawing



TECHNICAL SPECIFICATION GT-XT1000

Tip: use this slide as a reference when planning aisle widths, docking, and safety zoning.

**Full specification table →**

| 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, 1 X 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 PLA NNING | Defined path or natural navigation |
| **SAFETY** | |
| OBSTACLE AVOIDANCE | Laser scanner / Depth camera / ultrasonic sensor |
| EMERGENCY SAFETY | Bumper sensor / Emergency stop button |
| **ENVIRONMENT** | |
| OPERATI G TEMPERATURE | 5 to 40 Deg celcius |
| HUMIDITY | 95% Non condensing |
| ALLOWABLE SLOP | Near level (3%) |
| IP Rating | IP21 |

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## What GT Studio adds

- Robot onboarding + lifecycle management (telemetry, health, remote control)
- Mapping & localization tools (SLAM mapping, map updates, site editor)
- Workflow automation with visual state machines (no-code orchestration)
- Enterprise integrations: REST APIs, webhooks, MQTT, plugins
- Field device integration: PLCs, conveyors, doors/elevators, sensors
- WMS / ERP / MES integration for mission creation + status feedback
- Fleet orchestration & traffic control (priority lanes, dynamic replanning)
- Standards: VDA5050 support; security via RBAC & audit logging

## Ecosystem (simplified)

**Backend infrastructure**

Onboarding • security • telemetry • message routing

**Agent (on each robot)**

Secure control • metrics • integrations • streaming • plugins

**Frontend dashboard**

3D visualization • site editor • workflows • operations view

Integrates with facility systems (WMS/MES/ERP) and field devices

# Thank You for Trusting Us!

We're excited to welcome you to the Cabra family—where innovation leads and your success is our passion.

With your company joining our portfolio, we look forward to building the future of smart, flexible material movement together.

*Let's elevate possibilities. Welcome aboard!*

**Cabra**
Move

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