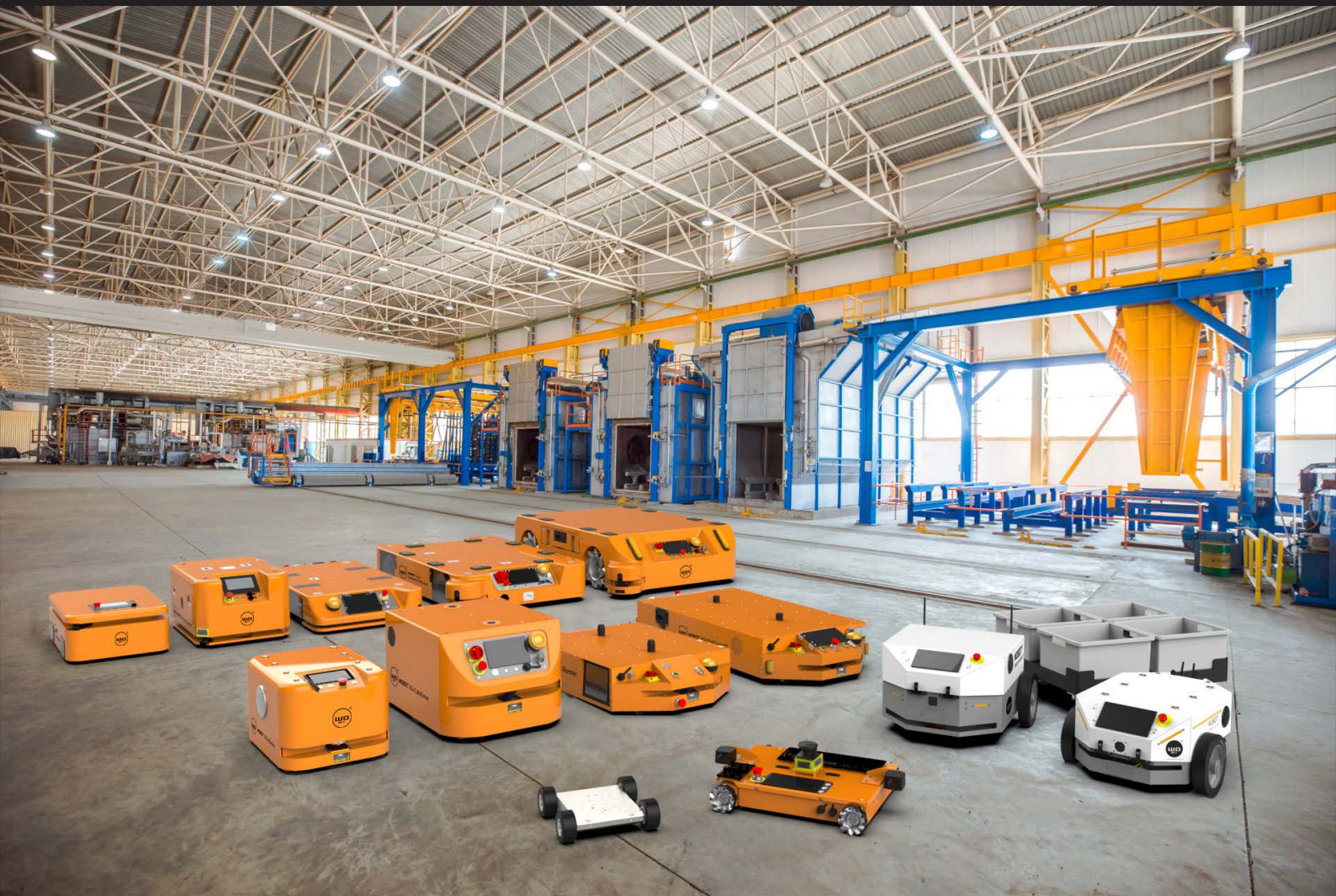




[www.wobit.com.pl](http://www.wobit.com.pl)

# MOBOT<sup>®</sup>

MOBILE ROBOTS FOR INTRALOGISTICS





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WObit is a Polish, family-owned company that has been providing state-of-the-art products and complete solutions for the industry for almost 30 years. The company was founded with a passion for mechatronics, which inspires the team to act and create every day.

WObit is a distributor of a wide spectrum of components in the field of measurements, drives, control, and mechanics. It offers almost all the elements necessary for the design and construction of complete machines. WObit is also a producer of devices, such as MLA linear modules, providing versatile application possibilities. The company creates proprietary industrial robots, among other Cartesian robots, Tower, SCARA, and MOBOT® mobile robots. They form an integral part of the factory of tomorrow, allowing you to produce personalized products on a massive scale. Following the Reach4Robotics idea, WObit robots are also available for small enterprises and are scalable to the needs of global producers.

The company offers cooperation in the field of integration of production systems, which includes a specialization in the field of mechatronics for several various applications, as well as programming services.

**Creating can be our common passion**

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10/2022

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### Why use MOBOT® robots ?

- Replace manually operated material handling vehicles
- Good response to labor shortage
- Allow employees to be reassigned to areas where they can add value to the product
- Provide safe, efficient, cost-effective movement of materials

## What MOBOT®s are? Main advantages

**MOBOT®** are mobile robots used for automatic and autonomous transport of goods and its movement is executed on a programmed route without the need for an onboard operator or a driver.

### EASY to integrate

the quick implementation that does not require modernization of the production area; navigation using the LMS system, allowing to avoid obstacles and change the route

### INDUSTRY 4.0 solution

mobile robots are part of Factory of the Future, which allows you to step in the next era of cyber-physical production

### FLEXIBILITY of the technology

easy to change path or operation, eliminating the need for expensive retrofitting



### PRECISE, SAFE & AGILE

MOBOTs operate with precisely controlled navigation and speed which provides smooth and gentle handling and minimizes potential damages

### Increased PRODUCTIVITY

combined with ERP or WMS system MOBOT operate at a fixed rate to meet a predictable metric for operational activity

### SAFE and PREDICTABLE technology

safe operation with human and building factors, can work in environments hazardous for humans with no brakes or vacation time

### PROFITABLE Investment

decreases labor costs and allow to assign employees to more complex tasks



# How does it find itself in space?

## LMS system (free navigation)

Natural and intelligent laser terrain mapping system (LMS), a type of free navigation for autonomous operation of the robot.

The LMS system uses naturally occurring objects, such as walls, machines, etc. to create a virtual map (coordinate system) that the robot moves on. It allows free movement in the mapped space and avoiding obstacles. It also allows the robot to make decisions about the optimal route between designated points.

The LMS system ensures quick implementation and does not require any changes in your environment. It is easy to adapt the robot to current needs, which gives great flexibility of use.

## Following the line using vision system

The robot moves on a colored line, and the position is detected using a vision system. The line is painted with abrasion-resistant paint or glued in, and additionally secured with protective tape.

Navigation along the line is a method that allows for precise positioning of the robot. The line on the floor is very flexible and allows for precise positioning. Characteristic points of the area are marked with QR codes.





## Safety

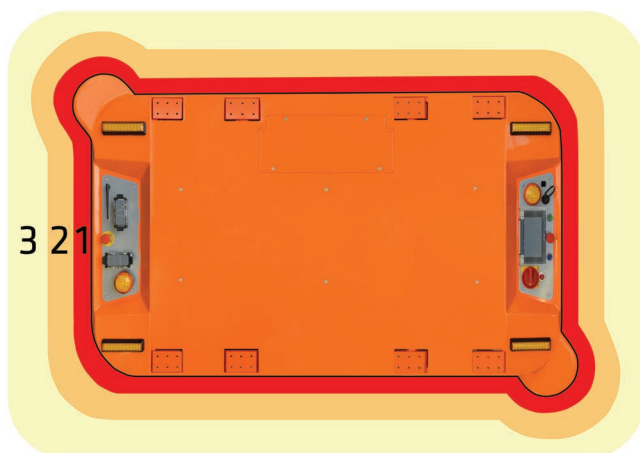
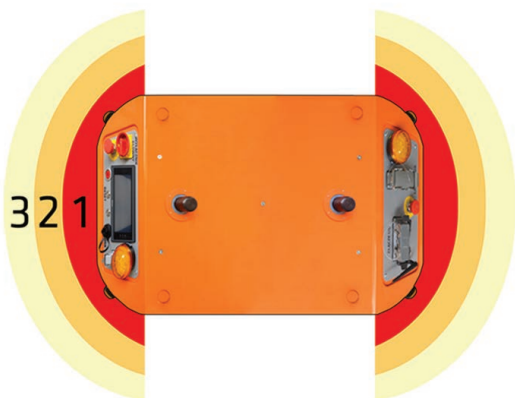
MOBOT® robots are equipped with an advanced security system comprising sensors, safety controllers, and emergency stop buttons.

Laser scanners with safety functions are used to scan the environment and detect all obstacles. The scanner is programmed safety and warning zones, so the robot can react accordingly, slowing, or completely stopping or avoiding an obstacle for an adequate amount of space on the route.

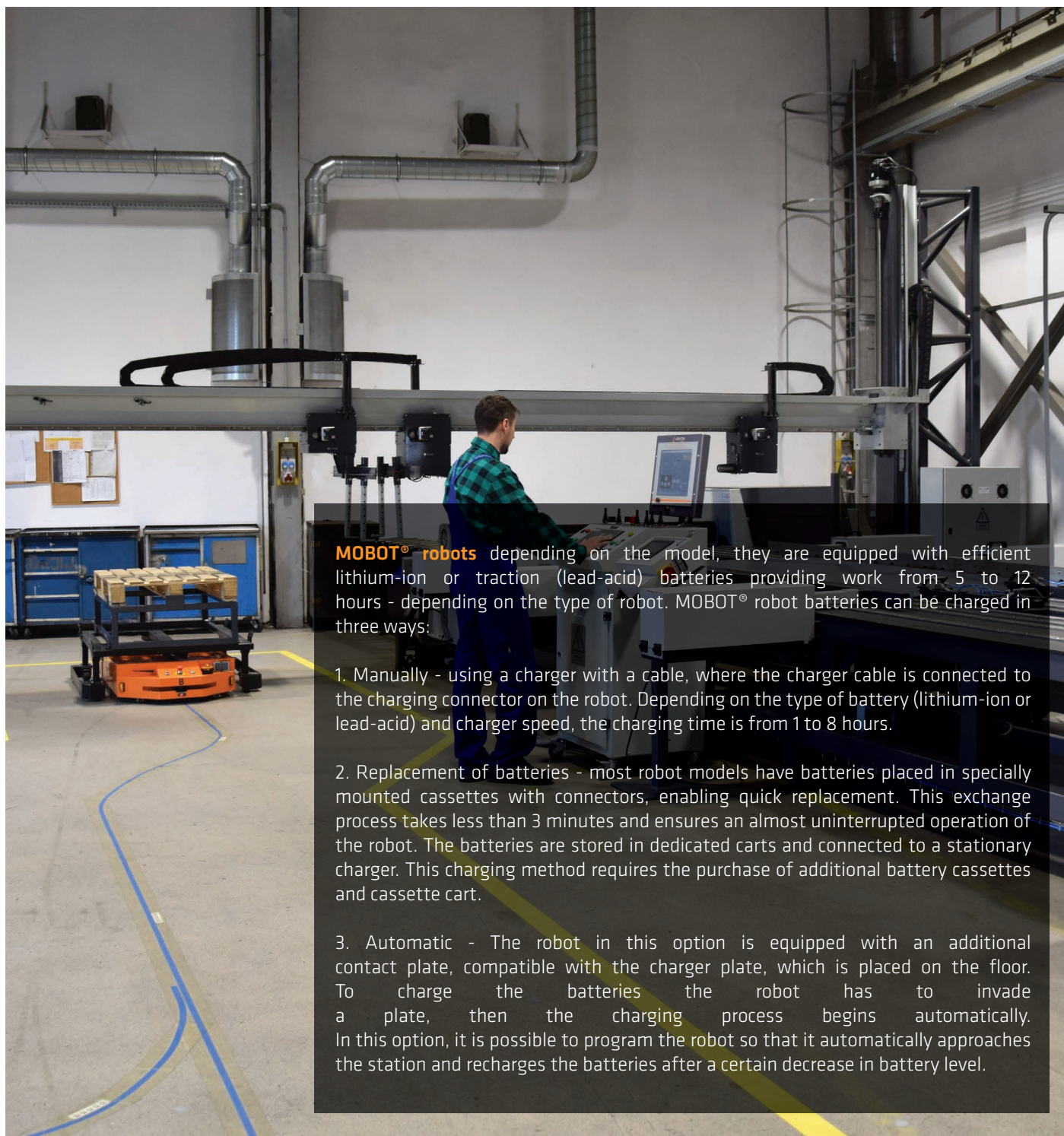
Safety zones are automatically adjusted according to the speed of movement. This feature prevents possible collisions and ensures safe operation in areas where people work and other machines.

Also, MOBOT® mobile robots inform about their presence and maneuvers carried out using light and sound signals (warning signals, messages, and melodies).

# Safety first







1



2



3





# MOBOT® RoutePlanner software

## Software

operates under Windows. Using this interface can be performed such actions like:

- observation of robot status and main system component,
- configuration of drives and I/O of the main controller,
- manual navigation of the robot,
- adding to the controller characteristic points of the route, where has to be performed a specific action.

The main part of the software is an environment allowing to program robot motion on selected route and to assign task to the robot.

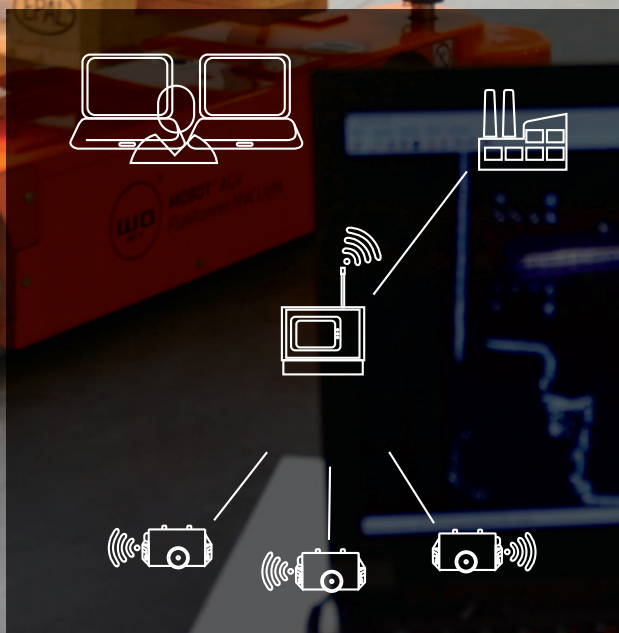
## Smart Factory

AGVs management system can be connected with company management software (MES/ERP), creating cyber-physical communication, it allows data storage in a cloud and global control

## Control Terminal

equipped with Wi-Fi router allows control of robot(s) via touch panel and remote assigning of tasks to the robot.

It present basic information about robots like its location, current task etc.



## Management of robot network

The management station can be additionally equipped with PLC driver for control of external devices e.g. roller conveyor, warning lights or other machines, that must be synchronized with robot operation.

Within the line can be used several management stations located at individual work stations. This system allows execution of distributed management of robots.





### ELECTRONICS

production of PCBs: interoperational transport within the manufacturing cell;  
housing assembly and semiconductors tests: transport of tray with integrated circuits;

### FMCG

transport of semi-finished products;  
transport of containers with end products to warehouse;

### LOGISTICS

pallet handling;  
material movement to support picking of mixed pallets;  
orders processing in e-commerce;

### MACHINERY, IRON & STEEL

transport of tools for tooling machines;  
transport of spool with wire for tooling machines;

### RUBBER, PLASTIC & PACKAGING

transport goods to the warehouse;  
transport of waste to the recycling and rubbish collection areas;

### FURNITURE

transport of semi-finished products between manufacturing cells;  
transport of end products to the warehouse;

### AUTOMOTIVE

engine production: transport of engine parts from warehouse to particular manufacturing cells;  
car electronics: transport of PC boards and small parts to refill production line  
tire assembly;

### HEALTHCARE

automatic pick-up and delivery of:  
meals from kitchen to Wards and return of empty trays to kitchen;  
waste from Wards & other locations to the recycling and rubbish collection areas;  
linen from laundry to wards + return of soiled linen;

### ALL GENERAL MANUFACTURING PRODUCTION

assembling: connection of different areas;  
production: raw material handling, work-in-process movement, parts/tooling delivery;  
commissioning;  
finished goods movement;  
removal of waste to recycling;



# MOBOT® TRANSPORTER mobile robots

Three-wheel, two-wheel drive, differential



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**Affordable, easy to use, and versatile.  
Facilitate easy transportation tasks.**



# MOBOT® TRANSPORTER U1 mobile robot

An autonomous mobile robot used to automate the transport and transport of small, light loads. It travels independently along the programmed route.

- ▶ Inexpensive and intuitive to use
- ▶ For quick, independent implementation
- ▶ Works safely with people while carrying your loads
- ▶ Increases process efficiency and reduces costs
- ▶ Degree of protection IP65 and the option of retreaded wheels allow for outdoor use
- ▶ ROI for one-shift work and replacement of 1 person is only 1 year
- ▶ You can quickly and conveniently configure the product via the website
- ▶ It gives the possibility to use almost any additional equipment. You can expand the robot with a wide spectrum of functionalities.



operating time up to 8 h  
on single charge



payload up to 100 kg



Wi-Fi communication



dimensions  
752,5 x 593/641 x 339 mm



max speed  
2,83 km/h or 5,65 km/h



navigation  
LMS system

**Intended use:** for hospitals, offices, labs, shops, airports, logistics



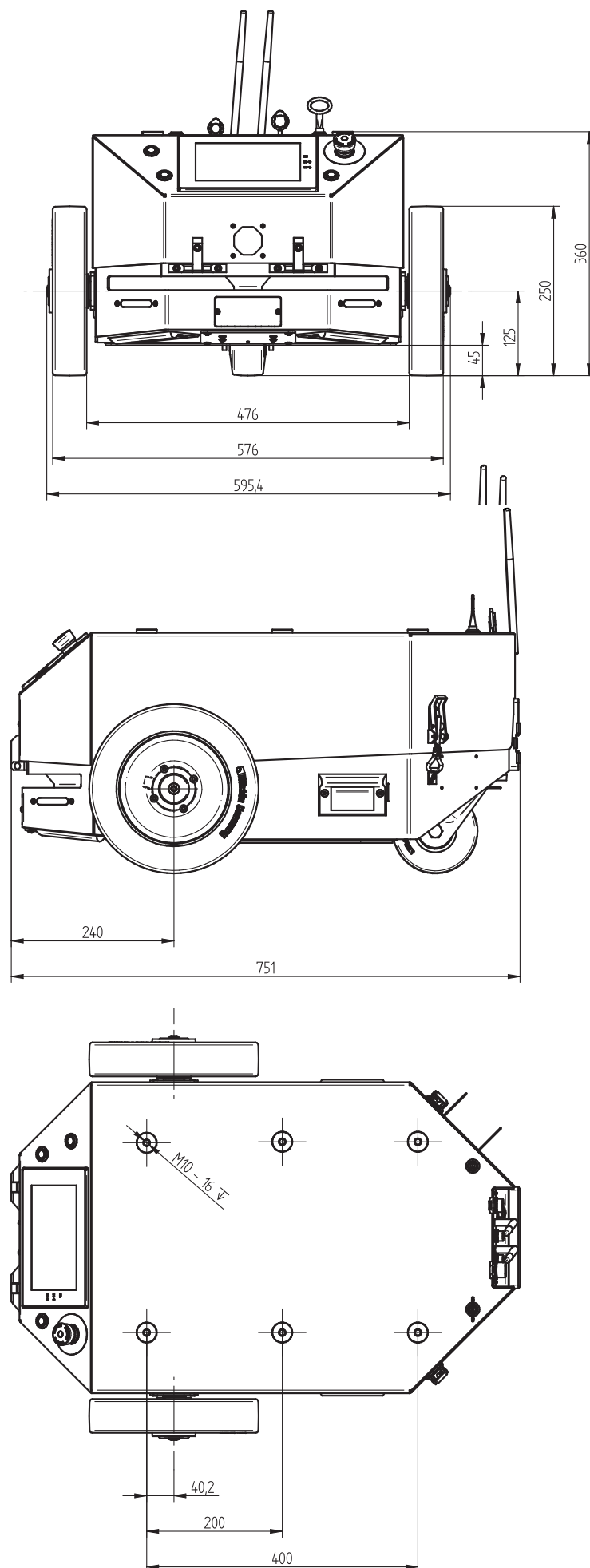
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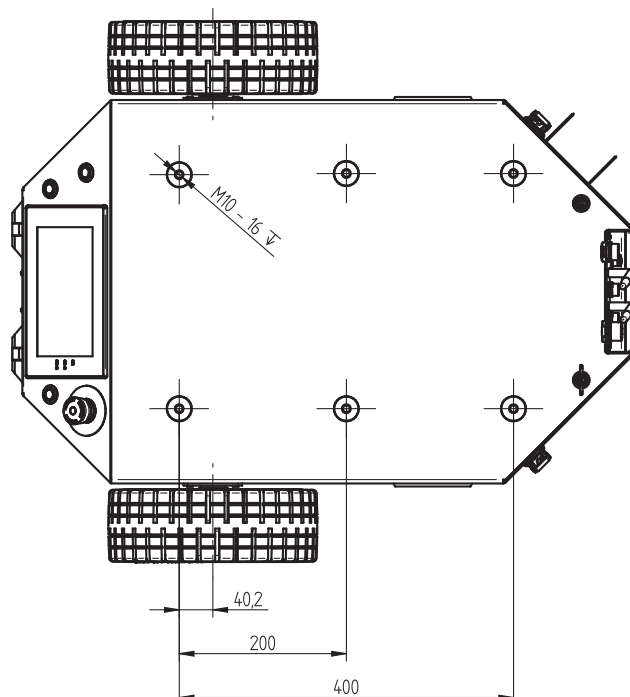
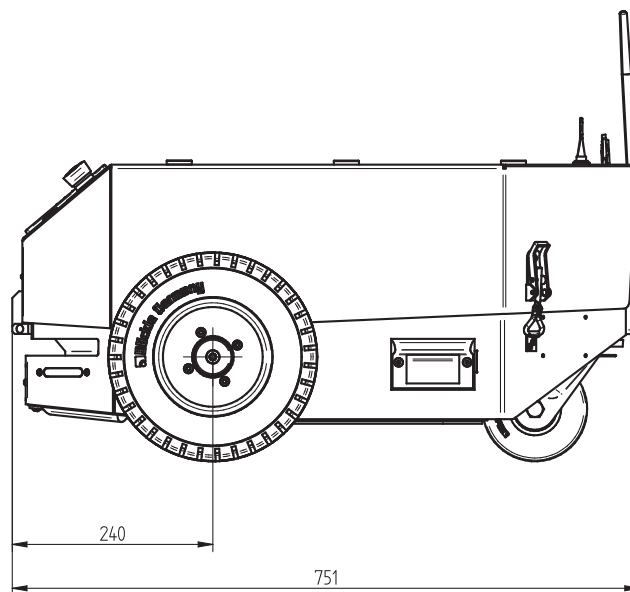
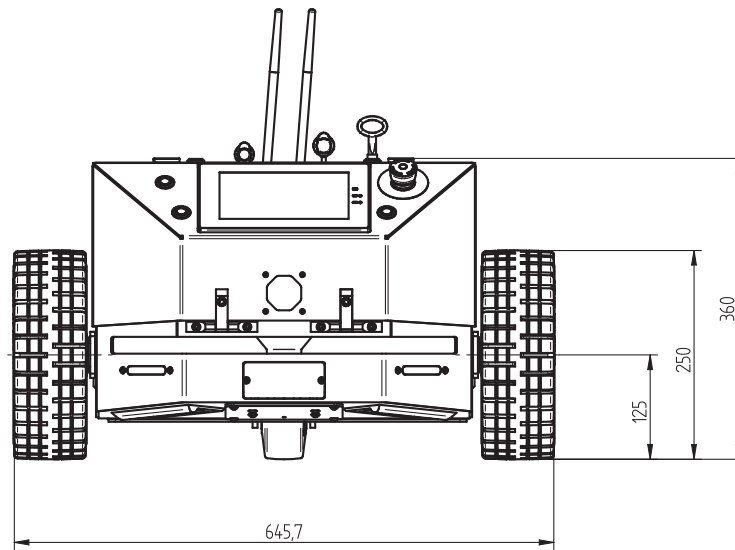
Robot type	<b>MOBOT® TRANSPORTER U1</b>
<b>Payload and transport method</b>	
Way of transporting cargo	Fastening the load on the upper surface of the robot with six M10 screws
Permissible total weight of the load	100 kg
<b>Power supply</b>	
Manual battery charging connector	YES (51.8 V DC, max. 20 A)* * - depends on the selected battery pack
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	- Standard battery pack Li-Ion 32 Ah/ 51.8 V (1657 Wh) - Optional battery pack Li-Ion 64 Ah/ 51.8 V (3314 Wh)
Charging	- Standard 15A charger, connected manually with a connector - 15 A automatic charging station with pins
Average operating time	~ 8 h (32 Ah battery) / ~ 16 h (64 Ah battery)* * the time depends on the average speed and the surface on which the robot moves, the transported load and possible power consumption from the connectors: I/O i mocy
Operating time in standby mode	~ 27 h (32 Ah battery) / ~ 54 h (64 Ah battery)
Battery charging time	- 32 Ah battery: ~2 h (15 A charger) - 64 Ah battery: ~4 h (15 A charger)
<b>Speed and performance</b>	
Maximal speed	2,83 km/h or 5,65 km/h
Nominal power	500 W
Movement directions	Forward movement (possibility of reversing in docking mode to the charger), rotation
Turning radius	Possibility of turning in place
Maximum surface slope	Restricted by the allowed approach angle of the robot
<b>Navigation</b>	
Navigation	- LMS laser, intelligent and autonomous navigation * - Manual robot control from a PC * LMS - laser navigation system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Connector	- Ethernet M12 (4 pin) - communication with PC, MODBUS TCP / IP - I/O switch: 24 VDC supply output (max. 2 A) + 2 inputs + 2 outputs (max. 0.5A) + CAN * - Optional power connector: 24 VDC power supply output (max. 10A) + 2 power outputs (max. 10 A) - Optional external safety circuit connector * option of connecting an optional I/O expansion module
<b>Drive and control</b>	
Drive	2 x servo motor (brushless), wheels with a diameter of 250 mm
Control and steering	- 1 x 7 "touch operator panel - 1 x emergency stop - 1 x emergency stop reset confirmation button - 1 x power switch - 1 x function button
<b>Sensors</b>	
Sensors	- 2D laser scanner for navigation with safety function - Camera for tag recognition and precise positioning
Signaling	- 1 x buzzer - 2 with loudspeaker (voice / music messages) - 2 x direction indicator in front of the robot - 1 x traffic light at the rear
<b>Environment</b>	
Operating temperature range	5 ÷ 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP65
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	787,5x593/645,7 (depending on the drive wheels) x 360 mm
Total weight (with batteries)	~ 110 kg





All dimensions are approximate values and can change.





# MOBOT® TRANSPORTER T5 mobile robot

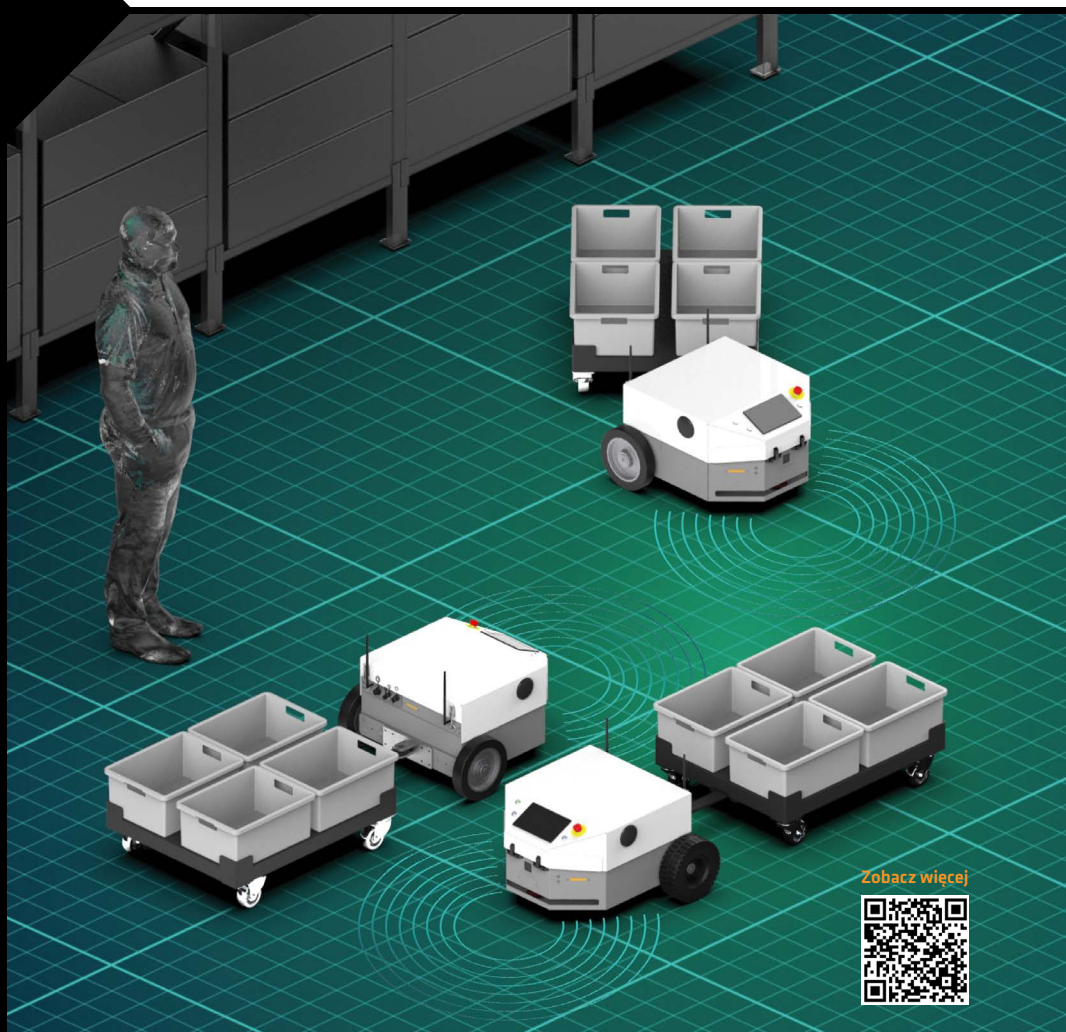
An autonomous mobile robot used to automate the transport and towing heavy loads. It travels independently along the programmed route.

- ▶ Inexpensive and intuitive to use
- ▶ For quick, independent implementation
- ▶ Works safely with people while carrying your loads
- ▶ Increases process efficiency and reduces costs
- ▶ Degree of protection IP65 and the option of retreaded wheels allow for outdoor use
- ▶ ROI for one-shift work and replacement of 1 person is only 1 year
- ▶ You can quickly and conveniently configure the product via the website
- ▶ It gives the possibility to use almost any additional equipment. You can expand the robot with a wide spectrum of functionalities.



-  operating time up to 8 h on a single charge
-  towing capacity up to 500 kg
-  Wi-Fi communication
-  dimensions 685x 674/732 x 418 mm
-  max speed 5,65 km/h
-  navigation LMS system

**Intended use:** for hospitals, industrial production, shops, airports, logistics

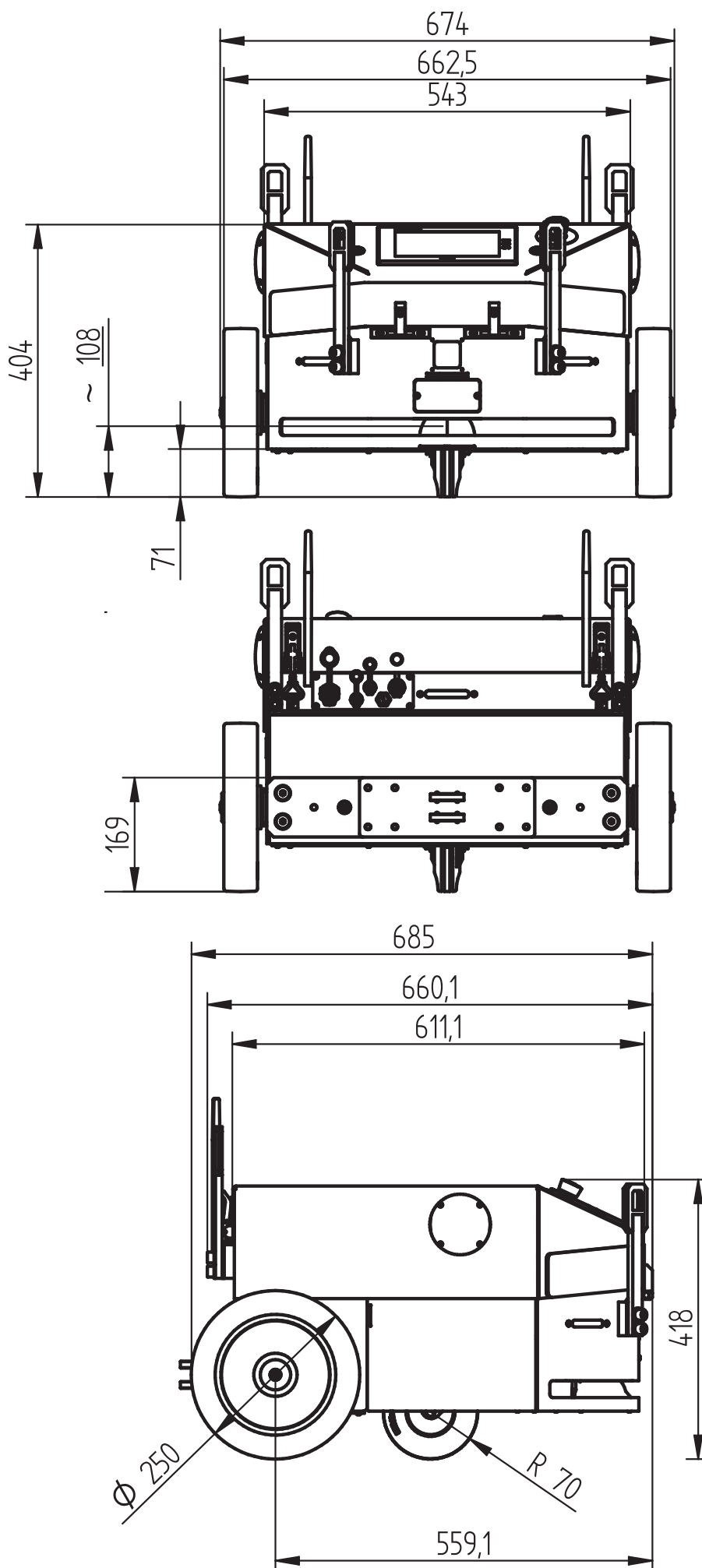


Zobacz więcej



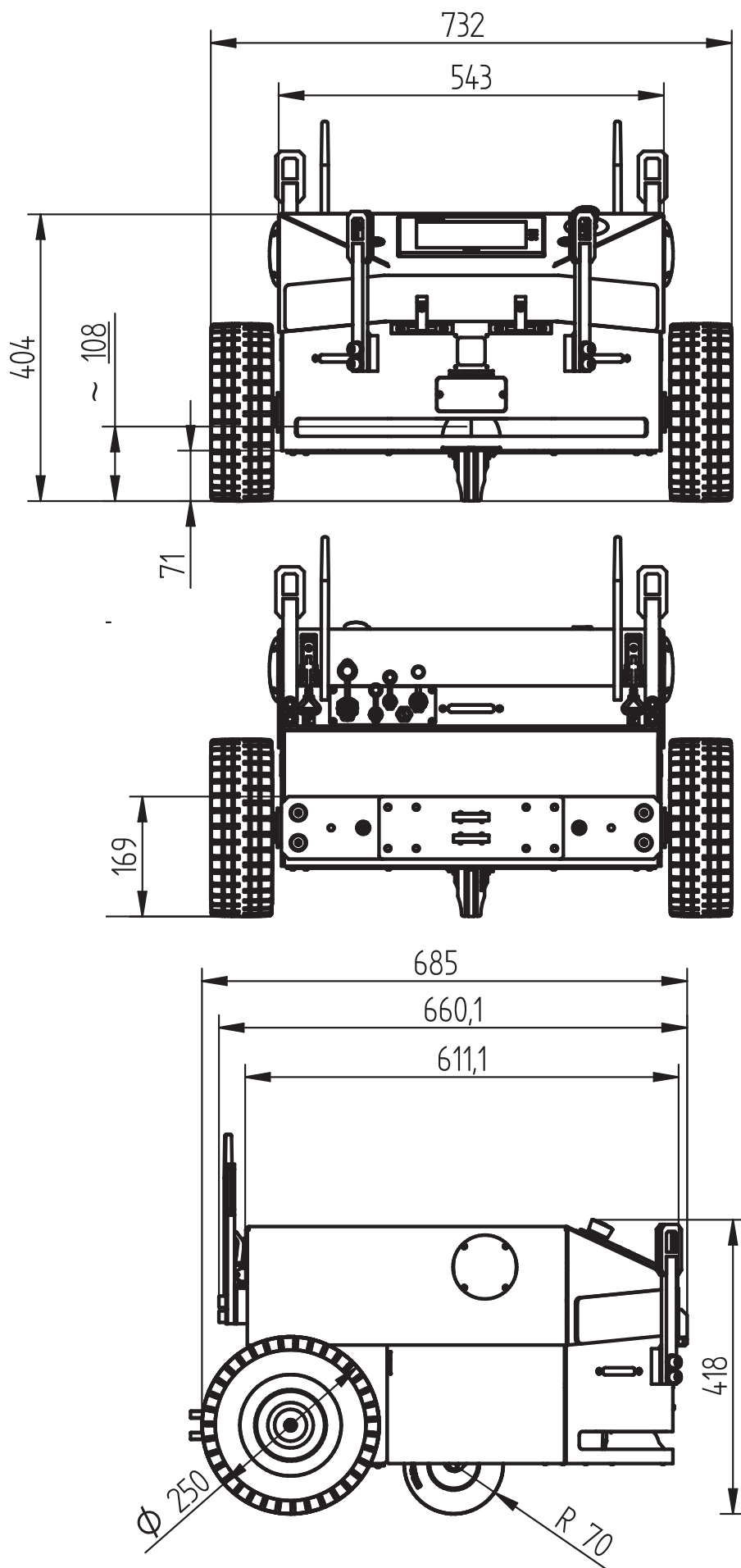


Robot type	<b>MOBOT® TRANSPORTER T5</b>
<b>Payload and transport method</b>	
Way of transporting cargo	The robot is pulling carts; replaceable clip on the back of the robot
Permissible total weight of the load	500 kg
<b>Power supply</b>	
Manual battery charging connector	YES (51.8 V DC max. 20 A)* * - depends on the selected battery pack
Automatic battery charging connector	Movable contact connector mounted on the bottom of the robot allows to automatically charge the battery during operation (optional)
Robot power supply	- Standard battery pack Li-Ion 32 Ah/ 51.8 V (1657 Wh) - Optional battery pack Li-Ion 64 Ah/ 51.8 V (3314 Wh)
Charging	- Standard 15A charger, connected manually with a connector - Standard 15A auto charger with pins
Average operating time	~ 8 h (32 Ah battery)/ ~ 16 h (64 Ah battery)* * the time depends on the average speed and the surface on which the robot moves, the transported load and possible power consumption from the connectors: I/O i mocy
Operating time in standby mode	~ 27 h (32 Ah battery) / ~ 54 h (64 Ah battery)
Battery charging time	- 32 Ah battery: ~2 h (15 A charger) - 64 Ah battery: ~4 h (15 A charger)
<b>Speed and performance</b>	
Maximal speed	5,65 km/h
Nominal power	1500 W
Movement directions	Forward movement, rotation
Turning radius	Possibility of turning in place
Maximum surface slope	Restricted by the allowed approach angle of the robot
<b>Navigation</b>	
Navigation	- LMS laser, intelligent and autonomous navigation * - Manual robot control from a PC * LMS - laser navigation system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Connector	- Ethernet M12 (4 pin) - communication with PC, MODBUS TCP / IP - I/O switch: 24 VDC supply output (max. 2 A) + 2 inputs + 2 outputs (max. 0.5A) + CAN * - Optional power connector: 40...58VDC power supply output (max. 10A) + 2 power outputs (max.10A) - Optional external safety circuit connector * option of connecting an optional I/O expansion module
<b>Drive and control</b>	
Drive	2 x servo motor (brushless), wheels with a diameter of 250 mm
Control and steering	- 1 x 7 "touch operator panel - 1 x emergency stop - 1 x emergency stop reset confirmation button - 1 x power switch - 1 x function button
<b>Sensors</b>	
Sensors	- 2D laser scanner for navigation with safety function - Camera for tag recognition and precise positioning
Signaling	- 1 x buzzer - 2 with loudspeaker (voice / music messages) - 2 x direction indicator - 1 x traffic light
<b>Environment</b>	
Operating temperature range	5 ÷ 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP65
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	685 x 674/732 (depending on the drive wheels) x 418 mm
Total weight (with batteries)	~ 130 kg



All dimensions are approximate values and can change.





# Accessories

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## Automatic charger

Instead of a standard hand charger, we offer a quick hand charger or automatic charging contacts on your robot, as well as a fast automatic charger as an option. With this option, you will automate the robot's operation and increase the convenience of everyday use.





# MOBOT® AGV mobile robots

Six wheel, two-wheel drive, differential



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**Robust, functional, and versatile.  
Increase performance intralogistics processes.**

# MOBOT® AGV eRunner (001) mobile robot

A mobile robot used to automate internal transport and transport small, light loads. Automatically moves along the route.

- ▶ Easy to use
- ▶ Works safely with people while carrying your loads
- ▶ Increases production efficiency and reduces costs
- ▶ Automates production lines and intralogistics
- ▶ For hospitals, offices, laboratories, light electronic production



operating time up to 8 h  
on a single charge



payload up to 100 kg



Wi-Fi communication



dimensions  
623 x 492 x 375 mm

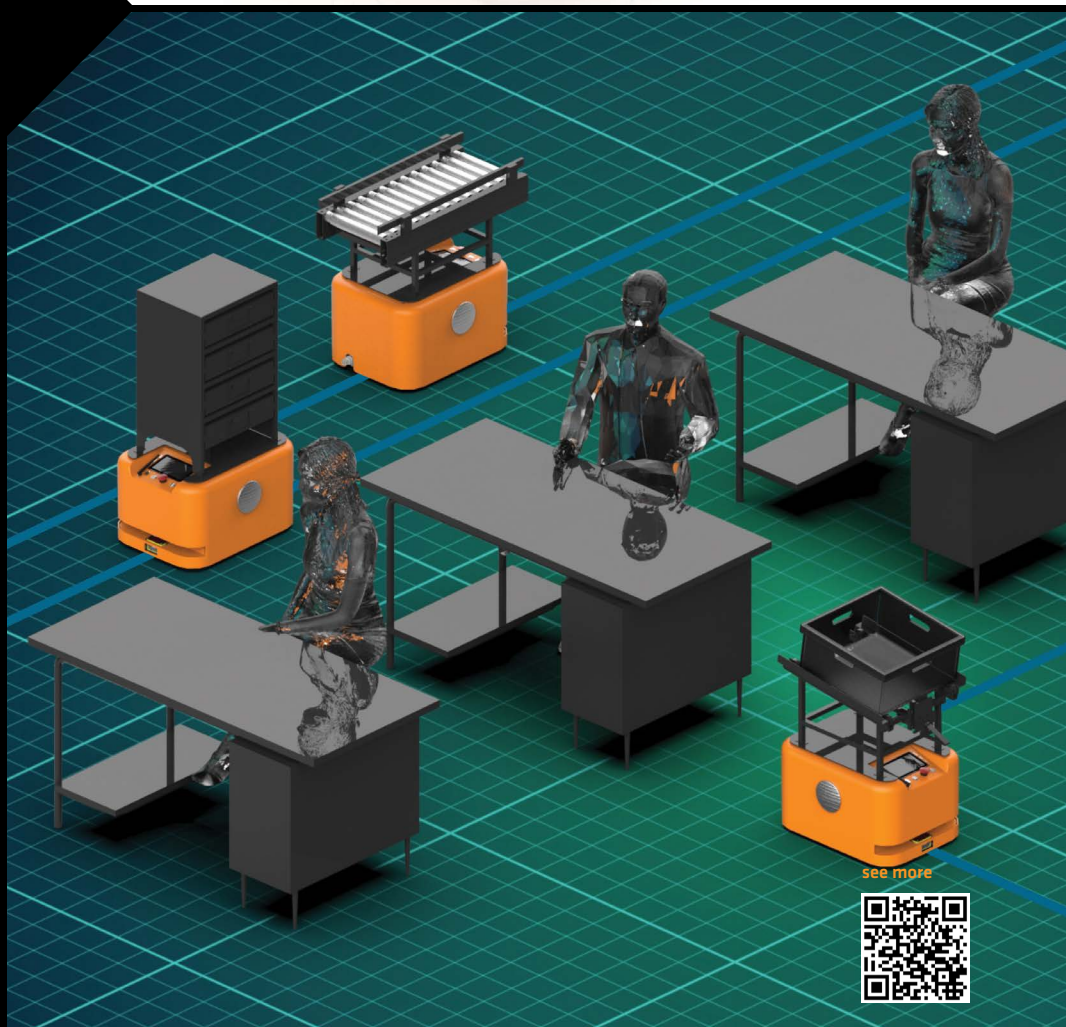


max speed  
3 km/h



line navigation using the  
vision system

**Intended use:** smaller transport  
tasks in industry and logistics



see more





Robot type	<b>MOBOT® AGV eRunner (001)</b>
<b>Payload and transport method</b>	
Transport method	Fastening the load on the upper surface of the robot with 8 M10 screws
Permissible total weight of the load	100 kg
<b>Power supply</b>	
Manual battery charging connector	YES (24 V DC, max. 16 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	2 x traction battery 36 Ah / 24 V
Charger	16 A / 24 V charger connected manually
Operating time at full load	~ 8 h
Operating time in standby mode	~ 40 h
Battery charging time	~ 2,5 h
<b>Speed and performance</b>	
Maximal speed	3,0 km/h
Nominal power	500 W
Movement directions	Move forward, turn
Turning radius	The possibility of turning back in place
Maximum surface slope	Robot designed for driving on a flat surface
<b>Navigation</b>	
Navigation	Navigation along the line using vision system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Communication connector	Ethernet RJ45 - communication with PC, MODBUS TCP / IP - I / O switch: 24 VDC supply output (max. 2 A) + 2 inputs + 2 out (max. 0.5A) + CAN * * option of connecting an optional I / O expansion module
<b>Drive and control</b>	
Drive	2x BLDC motor, wheels diameter 140 mm
Control and steering	<ul style="list-style-type: none"> <li>- 1 x 7 "touch operator panel</li> <li>- 1 x emergency stop</li> <li>- 1 x emergency stop reset confirmation button</li> <li>- 1 x power switch</li> <li>- 1 x function button</li> <li>- 1 x USB connector</li> </ul>
<b>Sensors</b>	
Sensors	<ul style="list-style-type: none"> <li>- 1 x vision system for tracking the line</li> <li>- 1 x 2D laser scanner with security function</li> </ul>
Signaling	<ul style="list-style-type: none"> <li>- 1 x buzzer</li> <li>- 1 x speaker (voice / music messages)</li> <li>- 2 x direction indicator</li> </ul>
<b>Environment</b>	
Operating temperature range	+5 - 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	623 x 492 x 375 mm
Total weight (with batteries)	~ 60 kg

# MOBOT® AGV eRunner (003) mobile robot

A mobile robot used to automate internal transport and transport small, light loads. Automatically moves along the route.

- ▶ Quick implementation without changes in the workplace
- ▶ Works safely with people while carrying your loads
- ▶ Increases production efficiency and reduces costs
- ▶ LMS navigation ensures autonomy of operation and flexibility of applications
- ▶ For hospitals, offices, laboratories, light electronic production



operating time up to 8 h  
on a single charge



payload up to 100 kg



Wi-Fi communication



dimensions  
623 x 492 x 375 mm

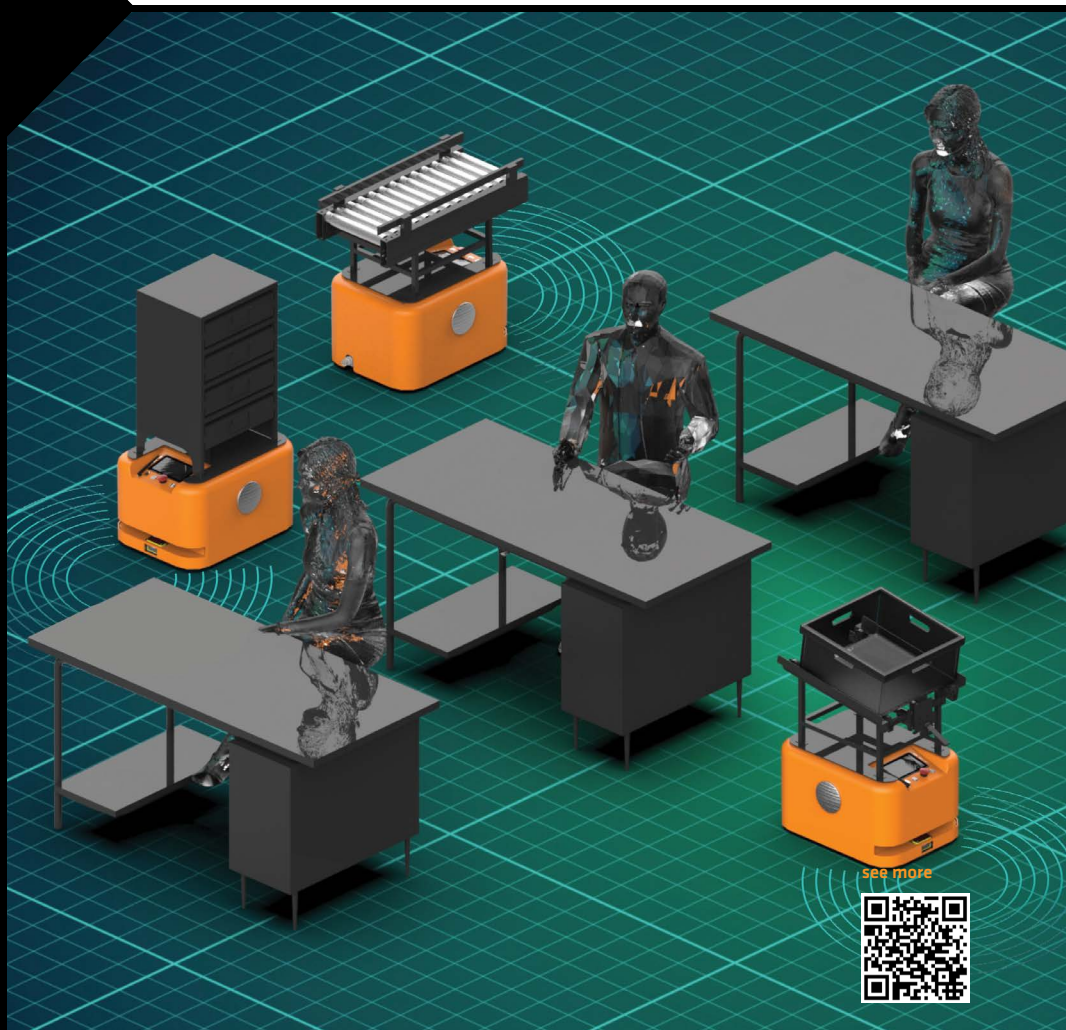


max speed  
3 km/h



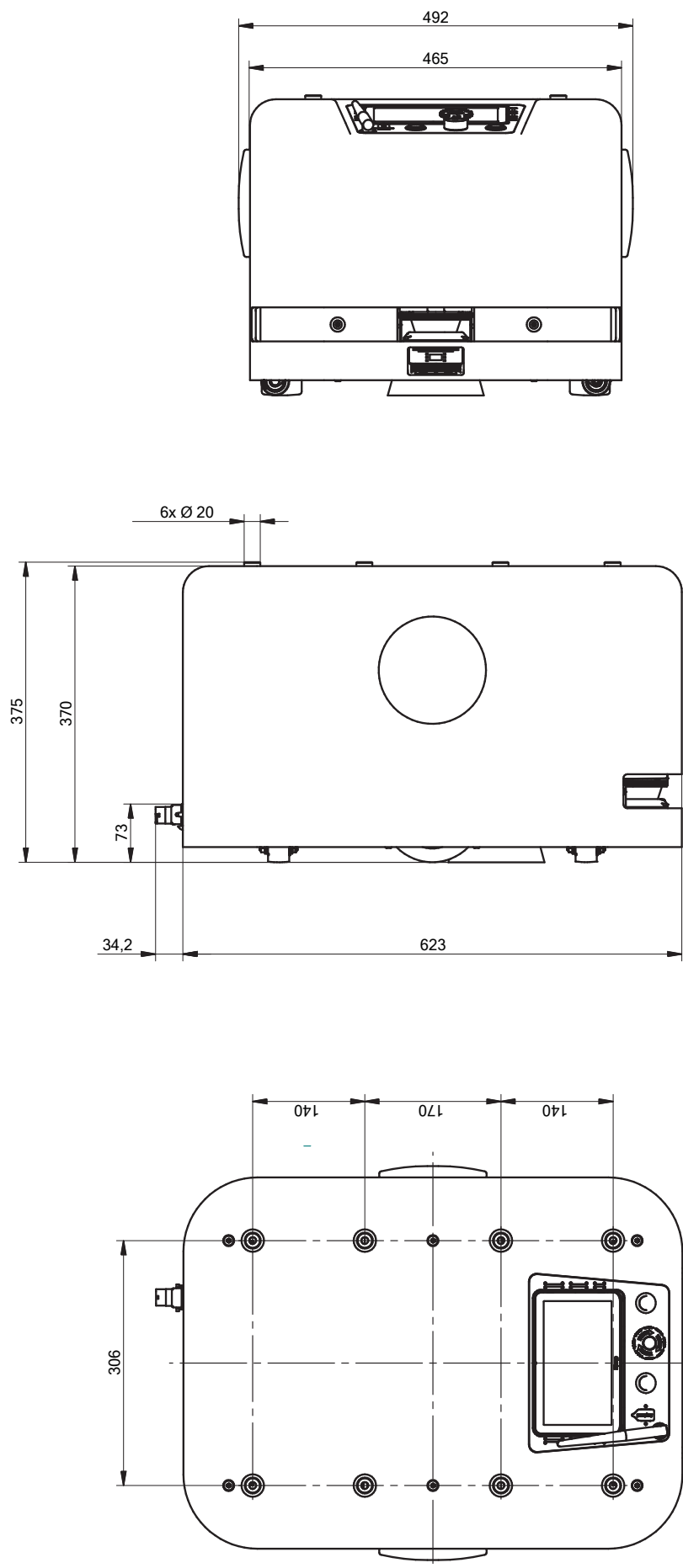
LMS system,  
line navigation using the  
vision system

**Intended use:** smaller transport  
tasks in industry and logistics





Robot type	<b>MOBOT® AGV eRunner (003)</b>
<b>Payload and transport method</b>	
Transport method	Fastening the load on the upper surface of the robot with 8 M10 screws
Permissible total weight of the load	100 kg
<b>Power supply</b>	
Manual battery charging connector	YES (24 V DC, max. 16 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	2 x traction battery 36 Ah / 24 V
Charger	16 A / 24 V charger connected manually
Operating time at full load	~ 8 h
Operating time in standby mode	~ 40 h
Battery charging time	~ 2,5 h
<b>Speed and performance</b>	
Maximal speed	3,0 km/h
Nominal power	500 W
Movement directions	Move forward, turn
Turning radius	The possibility of turning back in place
Maximum surface slope	Robot designed for driving on a flat surface
<b>Navigation</b>	
Navigation	- LMS laser, intelligent and autonomous navigation * - Vision system for precise positioning * LMS - laser navigation system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Communication connector	Ethernet RJ45 - communication with PC, MODBUS TCP / IP - I / O switch: 24 VDC supply output (max. 2 A) + 2 inputs + 2 out (max. 0.5A) + CAN * * option of connecting an optional I / O expansion module
<b>Drive and control</b>	
Drive	2x BLDC motor, wheels diameter 140 mm
Control and steering	- 1 x 7 "touch operator panel - 1 x emergency stop - 1 x emergency stop reset confirmation button - 1 x power switch - 1 x function button - 1 x USB connector
<b>Sensors</b>	
Sensors	- 1 x vision system for tracking the line - 1 x 2D laser scanner with security function
Signaling	- 1 x buzzer - 1 x speaker (voice / music messages) - 2 x direction indicator
<b>Environment</b>	
Operating temperature range	+5 - 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	623 x 492 x 375 mm
Total weight (with batteries)	~ 60 kg



All dimensions are approximate values and can change.



## Accessories

### Adapter for transporting boxes

A special adapter ensures convenient transport of boxes and small items. The details are placed at the right height, ergonomic for the user. This solution maximizes efficiency, optimizes material flow, and allows better use of available space.

### Adapter with automatic rollers

Designed for transporting various types of containers, packages. The system consists of an automatic roller feeder attached to an AGV robot using a special adapter. The rollers are driven by motors powered by robot batteries and ensure a fast and smooth flow of goods.

This solution maximizes efficiency, optimizes material flow, and allows better use of available space.

### Adapter with rack

Special adapter with a rack suitable for transporting small items such as PCBs, electronic components, cardboard boxes, etc. The rack has retractable shelves placed at the appropriate height and position, providing the user with ergonomic access. This solution maximizes efficiency, optimizes material flow, and allows better use of available space.





# MOBOT® CubeRunner2 (002) mobile robot


An autonomous mobile robot with which you will automate internal transport. Ideal for transporting medium-sized loads, e.g. litter trays or parcels. It travels independently along the programmed route.

- ▶ Fast implementation without changes in the workplace
- ▶ Easy to use
- ▶ Works safely with people while carrying your loads
- ▶ Increases production efficiency and reduces costs
- ▶ Automates production lines and intralogistics
- ▶ Can work with palletizing robots




 operating time up to 8 h  
on a single charge


 payload up to 200 kg

 Wi-Fi communication

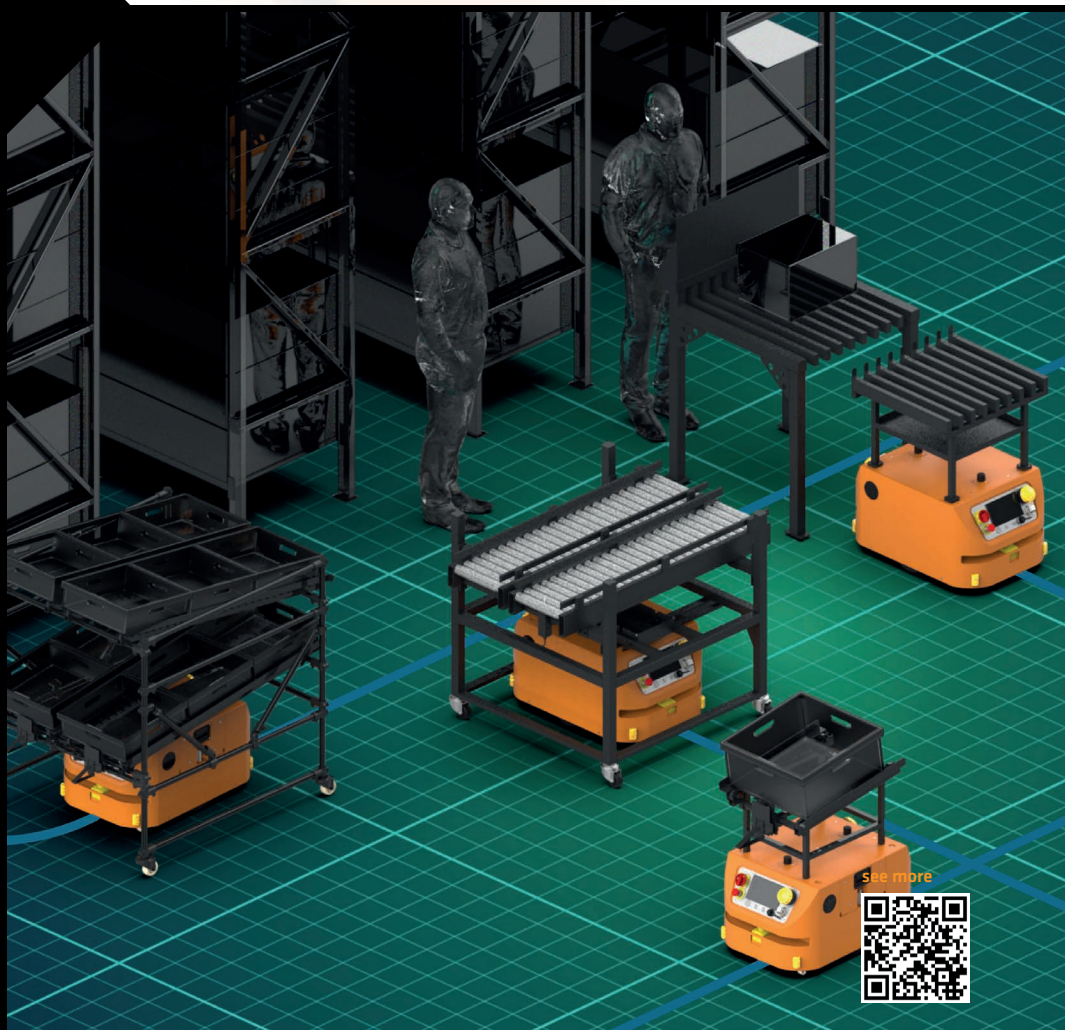
 dimensions  
900 x 606 x 476 mm

 max speed  
3 km/h

 line navigation using the  
vision system

 system of retractable pins

**Intended use:** transport of medium-sized loads in industry and logistics



Robot type	<b>MOBOT® AGV CubeRunner2 (002)</b>
<b>Payload and transport method</b>	
Transport method	Cart guided over the robot with the possibility of attaching using two automatic pins
Permissible total weight of the load	200 kg
<b>Power supply</b>	
Manual battery charging connector	YES (24 V DC, max. 30 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	2 x traction battery 85 Ah /12 V The battery is mounted in a cassette allowing for quick replacement in the robot
Charger	- 30 A / 24 V charger connected manually - Optional charging station with 30A / 24V charger for charging replaceable battery cartridges - Optional contact module for automatic charging
Operating time at full load	~ 8 h
Operating time in standby mode	~ 40 h
Battery charging time	~3 h
<b>Speed and performance</b>	
Maximal speed	3 km/h
Nominal power	1000 W
Movement directions	Move forward / backward, turn
Turning radius	The possibility of turning back in place
Maximum surface slope	Robot designed for driving on a flat surface
<b>Navigation</b>	
Navigation	Navigation along the line using vision system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Communication connector	- Ethernet RJ45 - communication with PC, MODBUS TCP / IP - 18 pin connector, E-Stopx2, Reset, RS485 (Modbus RTU), CANopen, 2 x input, 24 VDC power supply output (2A) + 24 VDC power supply output (10 A)
<b>Drive and control</b>	
Drive	4x BLDC motor, wheels diameter 250 mm,
Control and steering	- 1 x 7 "touch operator panel - 2 x emergency stop - 2 x emergency stop reset confirmation buttons - 1 x main power switch - 2 x function button - 1 x USB connector - 1 x Ethernet connector
<b>Sensors</b>	
Sensors	- 2 x vision system for tracking the line - 2 x 2D laser scanner with security function
Signaling	2 x light and sound signaling device - 2 x speaker (voice / music messages) - 4 x direction indicator
<b>Environment</b>	
Operating temperature range	+5 - 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	900 x 606 x 476 mm
Total weight (with batteries)	~ 220 kg





# MOBOT® CubeRunner2 (004) mobile robot


An autonomous mobile robot with which you will automate internal transport. Ideal for transporting medium-sized loads, e.g. litter trays or parcels. It travels independently along the programmed route.

- Fast implementation without changes in the workplace
- Easy to use
- Works safely with people while carrying your loads
- Increases production efficiency and reduces costs
- LMS navigation ensures the autonomy of operation and flexibility of applications
- Automates production lines and intralogistics
- Can work with palletizing robots




 operating time up to 8 h  
on a single charge


 payload up to 200 kg

 Wi-Fi communication

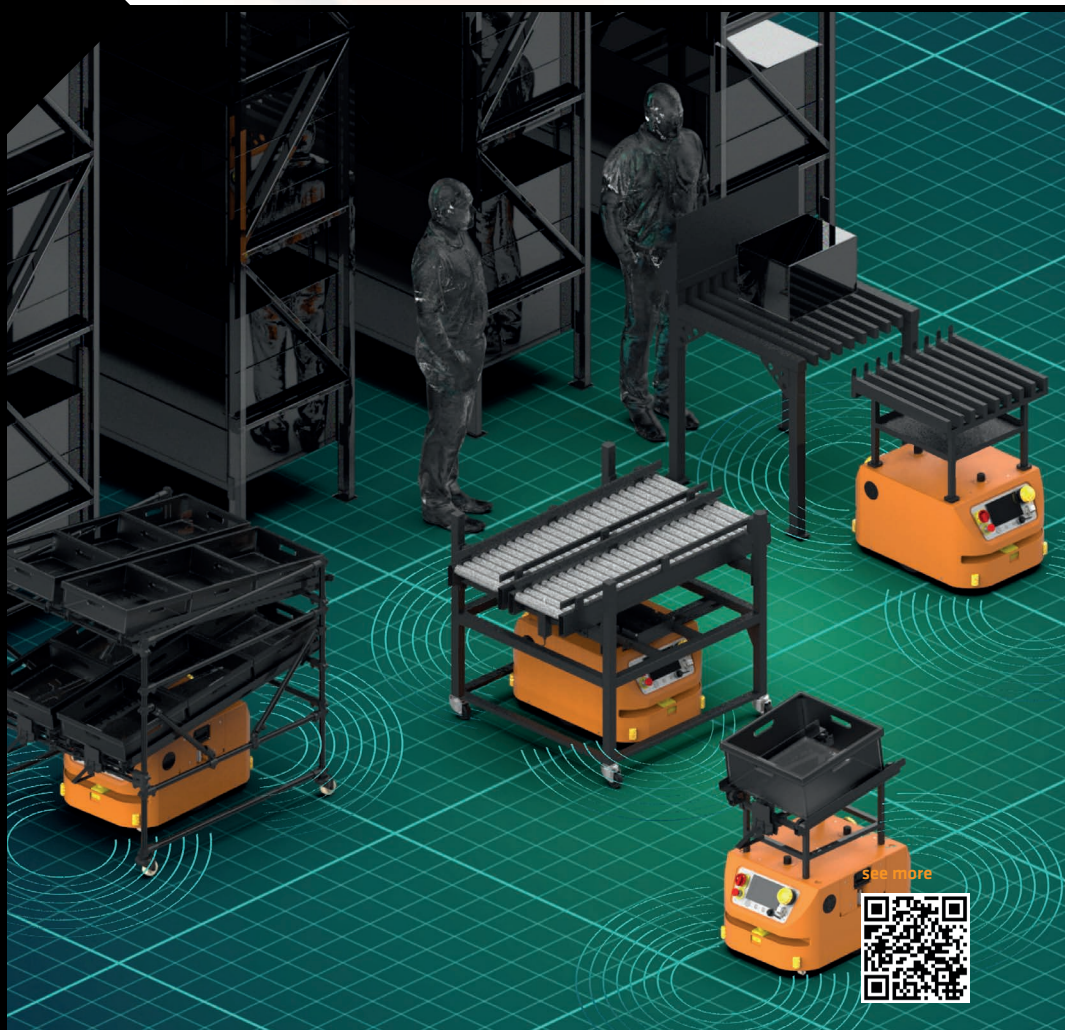
 dimensions  
900 x 606 x 476 mm

 max speed  
3 km/h

 LMS system,  
line navigation using the  
vision system

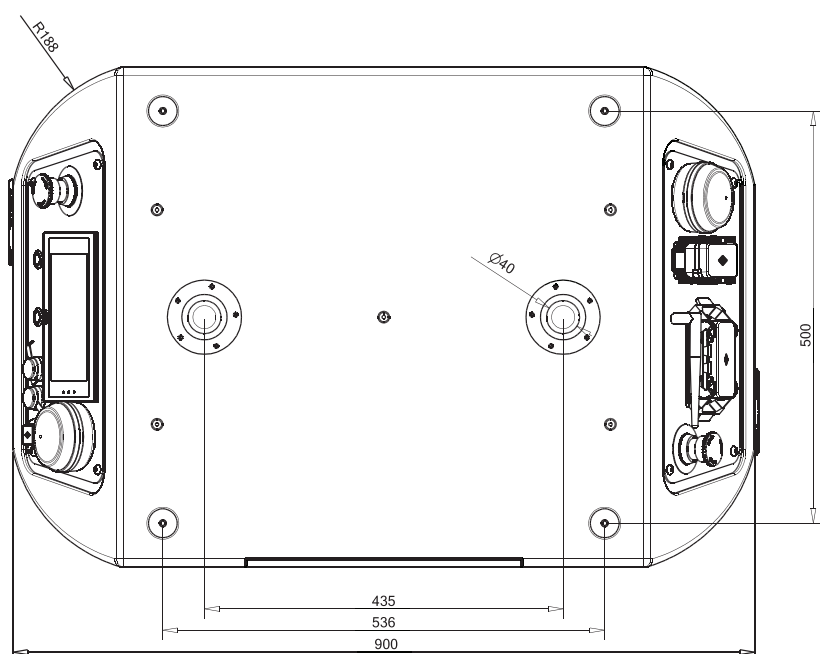
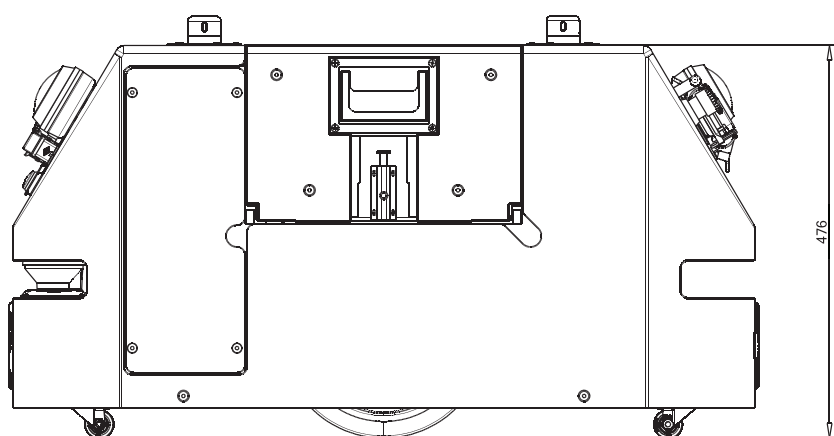
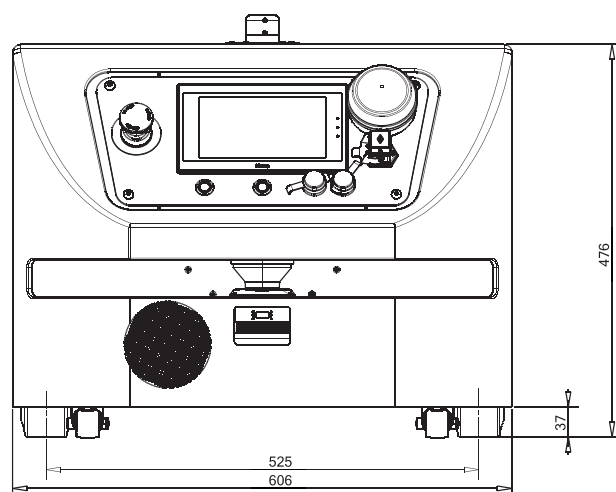
 system of retractable pins

**Intended use:** transport of medium-sized loads in industry and logistics



Robot type	<b>MOBOT® AGV CubeRunner2 (004)</b>
<b>Payload and transport method</b>	
Transport method	Cart guided over the robot with the possibility of attaching using two automatic pins
Permissible total weight of the load	200 kg
<b>Power supply</b>	
Manual battery charging connector	YES (24 V DC, max. 30 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	2 x traction battery 85 Ah /12 V The battery is mounted in a cassette allowing for quick replacement in the robot
Charger	- 30 A / 24 V charger connected manually - Optional charging station with 30A / 24V charger for charging replaceable battery cartridges - Optional contact module for automatic charging
Operating time at full load	~ 8 h
Operating time in standby mode	~ 40 h
Battery charging time	~3 h
<b>Speed and performance</b>	
Maximal speed	3 km/h
Nominal power	1000 W
Movement directions	Move forward / backward, turn
Turning radius	The possibility of turning back in place
Maximum surface slope	Robot designed for driving on a flat surface
<b>Navigation</b>	
Navigation	- LMS laser, intelligent and autonomous navigation * - Vision system for precise positioning * LMS - laser navigation system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Communication connector	- Ethernet RJ45 - communication with PC, MODBUS TCP / IP - 18 pin connector, E-Stopx2, Reset, RS485 (Modbus RTU), CANopen, 2 x input, 24 VDC power supply output (2A) + 24 VDC power supply output (10 A)
<b>Drive and control</b>	
Drive	4x BLDC motor, wheels diameter 250 mm,
Control and steering	- 1 x 7 "touch operator panel - 2 x emergency stop - 2 x emergency stop reset confirmation buttons - 1 x main power switch - 2 x function button - 1 x USB connector - 1 x Ethernet connector
<b>Sensors</b>	
Sensors	- 2 x vision system for tracking the line - 2 x 2D laser scanner with security function
Signaling	2 x light and sound signaling device - 2 x speaker (voice / music messages) - 4 x direction indicator
<b>Environment</b>	
Operating temperature range	+5 - 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	900 x 606 x 476 mm
Total weight (with batteries)	~ 220 kg





All dimensions are approximate values and can change.



## Accessories

### Cart with gravity roller conveyor

The gravity roller feed system allows to transport and automatically receive and transfer goods placed in the cuvettes. The system consists of a movable conveyor attached to the mobile robot using pins and a fixed conveyor permanently attached to the ground.

When the conveyors have docked, the latches on both conveyors are automatically released and shift the load on them.

### Cart with automatic rollers

Designed for transporting various types of containers, packages. The system consists of an automatic roller feeder attached to the mobile robot using its mandrels. The rollers are powered by powered engines from robot batteries and ensure fast and smooth flow of goods.

### Docking system adapter

The special adapter is equipped with docking guides, enabling quick and convenient loading of the CubeRunner robot, and then leaving the transported goods on the conveyor system.

### Charging station


### Cart trolley with batteries


# MOBOT® FlatRunner (002) mobile robot


A mobile robot used to automate internal transport and transport heavy loads such as pallets or parcels. Automatically moves along the route.

- ▶ Easy to use  
Works safely with people while carrying your loads
- ▶ Increases production efficiency and reduces costs
- ▶ Automates production lines and intralogistics
- ▶ Can work with palletizing robots




 operating time up to 8 h  
on a single charge


 payload up to 500 kg

 Wi-Fi communication

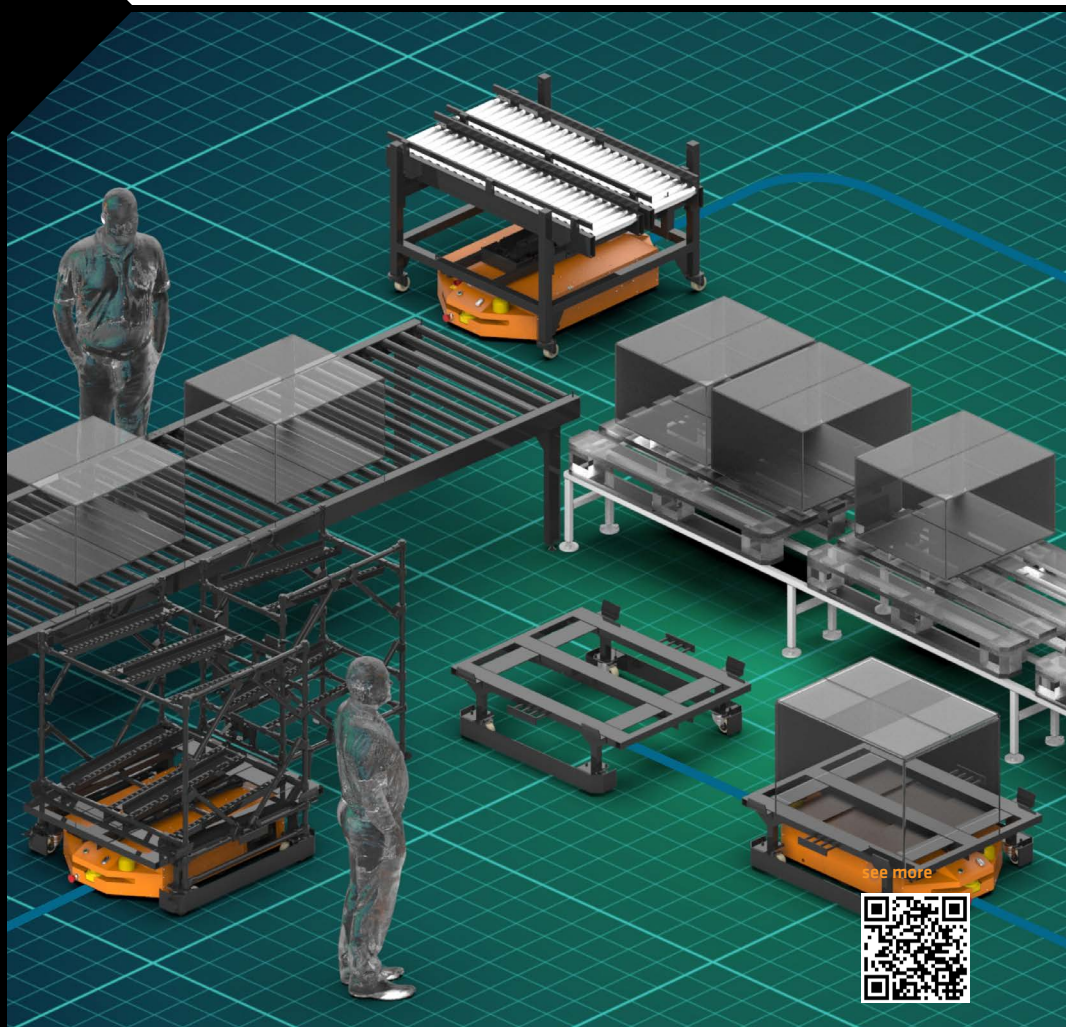
 dimensions  
1200 x 750 x 239 mm

 max speed  
3 km/h

 line navigation using the  
vision system

 system of retractable pins

**Intended use:** transport of heavy  
loads in industry and logistics





Robot type	<b>MOBOT® AGV FlatRunner (002)</b>
<b>Payload and transport method</b>	
Transport method	Cart guided over the robot with the possibility of attaching using two automatic pins
Permissible total weight of the cart with load	500 kg
<b>Power supply</b>	
Manual battery charging connector	YES (24 V DC, max. 30 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	2 x traction battery 85 Ah /12 V The battery is mounted in a cassette allowing for quick replacement in the robot
Charger	- 30 A / 24 V charger connected manually - Optional charging station with 30A / 24V charger for charging replaceable battery cartridges - Optional contact module for automatic charging
Operating time at full load	~ 8 h
Operating time in standby mode	~ 40 h
Battery charging time	~ 3 h
<b>Speed and performance</b>	
Maximal speed	3 km/h
Nominal power	1200 W
Movement directions	Move forward / backward, turn
Turning radius	The possibility of turning back in place
Maximum surface slope	Robot designed for driving on a flat surface
<b>Navigation</b>	
Navigation	Navigation along the line using vision system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Connector	- Ethernet RJ45 - communication with PC, MODBUS TCP / IP - 18 pin connector, E-Stopx2, Reset, RS485 (Modbus RTU), CANopen, 2 x input, 24 VDC power supply output (2A) + 24 VDC power supply output (10 A)
<b>Drive and control</b>	
Drive	2x BLDC motor, wheels diameter 215 mm
Control and steering	- 1 x 7 "touch operator panel - 2 x emergency stop - 2 x emergency stop reset confirmation buttons - 1 x main power switch - 2 x function button - 1 x USB connector - 1 x Ethernet connector
<b>Sensors</b>	
Sensors	- 2 x vision system for tracking the line - 2 x 2D laser scanner with security function
Signaling	-- 2 x light and sound signaling devices - 2 x speaker (voice / music messages) - 4 x direction indicator
<b>Environment</b>	
Operating temperature range	5 ÷ 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	1200 x 750 x 239 mm
Total weight (with batteries)	~ 220 kg

# MOBOT® FlatRunner (004) mobile robot

A mobile robot used to automate internal transport and transport heavy loads such as pallets or parcels. Automatically moves along the route.

- ▶ Fast implementation without changes in the workplace
- ▶ Easy to use
- ▶ Works safely with people while carrying your loads
- ▶ Increases production efficiency and reduces costs
- ▶ LMS navigation ensures the autonomy of operation and flexibility of applications
- ▶ Automates production lines and intralogistics
- ▶ Can work with palletizing robots



operating time up to 8 h  
on a single charge



payload up to 500 kg



Wi-Fi communication



dimensions  
1200 x 750 x 239 mm



max speed  
3 km/h

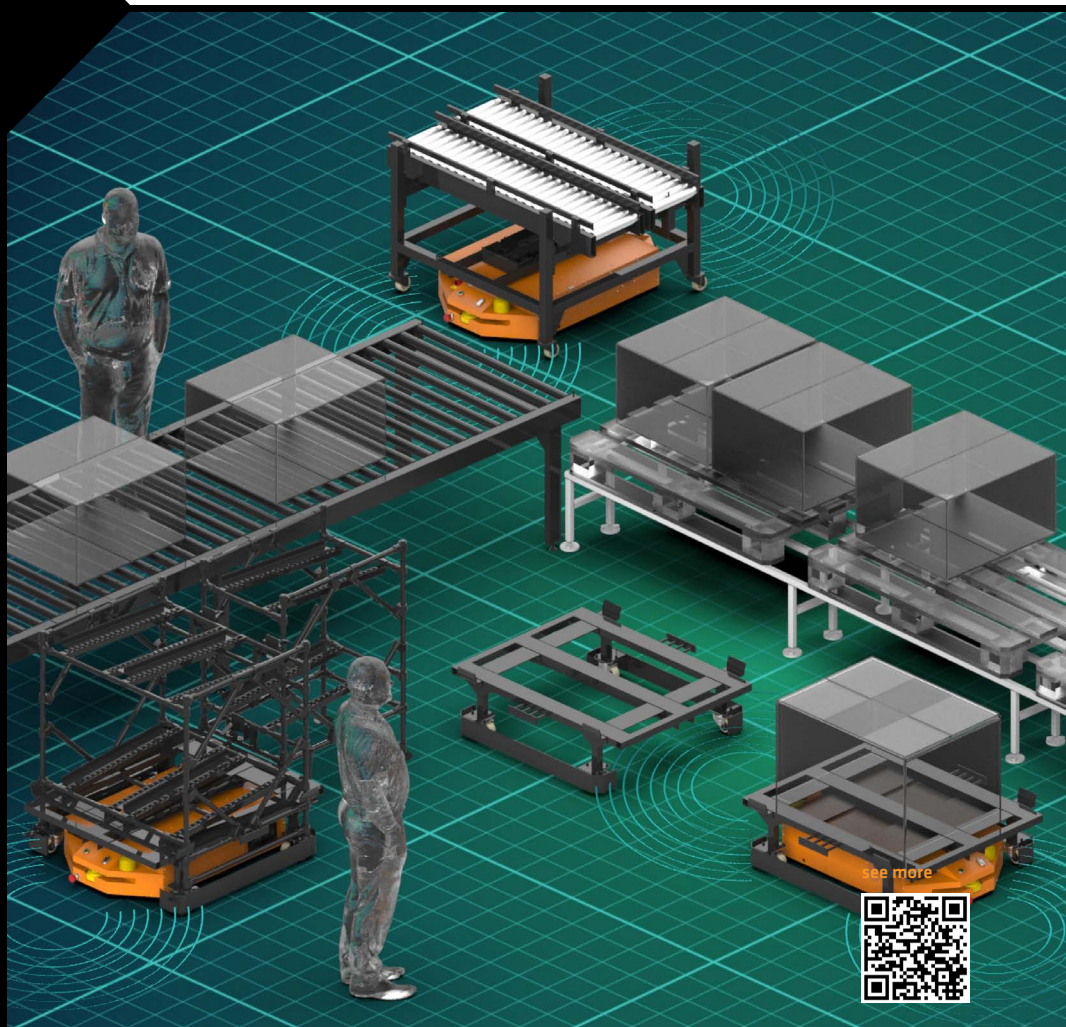


LMS system,  
line navigation using the  
vision system



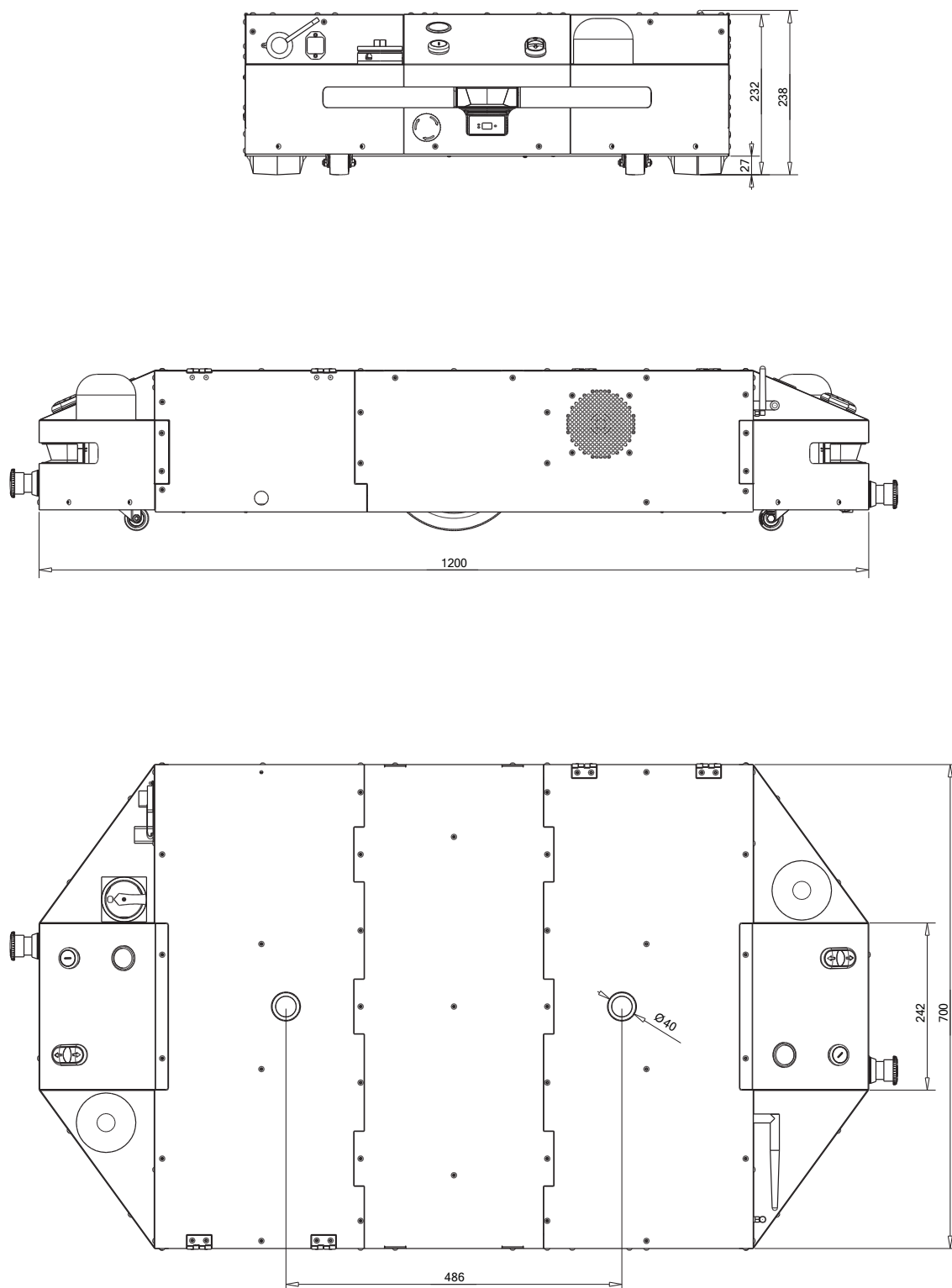
system of retractable pins

**Intended use:** transport of heavy  
loads in industry and logistics



Robot type	<b>MOBOT® AGV FlatRunner (004)</b>
<b>Payload and transport method</b>	
Transport method	Cart guided over the robot with the possibility of attaching using two automatic pins
Permissible total weight of the cart with load	500 kg
<b>Power supply</b>	
Manual battery charging connector	YES (24 V DC, max. 30 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	2 x traction battery 85 Ah /12 V The battery is mounted in a cassette allowing for quick replacement in the robot
Charger	- 30 A / 24 V charger connected manually - Optional charging station with 30A / 24V charger for charging replaceable battery cartridges - Optional contact module for automatic charging
Operating time at full load	~ 8 h
Operating time in standby mode	~ 40 h
Battery charging time	~ 3 h
<b>Speed and performance</b>	
Maximal speed	3 km/h
Nominal power	1200 W
Movement directions	Move forward / backward, turn
Turning radius	The possibility of turning back in place
Maximum surface slope	Robot designed for driving on a flat surface
<b>Navigation</b>	
Navigation	- LMS laser, intelligent and autonomous navigation * - Vision system for precise positioning * LMS - laser navigation system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Connector	- Ethernet RJ45 - communication with PC, MODBUS TCP / IP - 18 pin connector, E-Stopx2, Reset, RS485 (Modbus RTU), CANopen, 2 x input, 24 VDC power supply output (2A) + 24 VDC power supply output (10 A)
<b>Drive and control</b>	
Drive	2x BLDC motor, wheels diameter 215 mm
Control and steering	- 1 x 7 "touch operator panel - 2 x emergency stop - 2 x emergency stop reset confirmation buttons - 1 x main power switch - 2 x function button - 1 x USB connector - 1 x Ethernet connector
<b>Sensors</b>	
Sensors	- 2 x vision system for tracking the line - 2 x 2D laser scanner with security function
Signaling	-- 2 x light and sound signaling devices - 2 x speaker (voice / music messages) - 4 x direction indicator
<b>Environment</b>	
Operating temperature range	5 ÷ 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	1200 x 750 x 239 mm
Total weight (with batteries)	~ 220 kg





All dimensions are approximate values and can change.



## Accessories

### Transport cart for pallets

The transport cart is suitable for transporting standard EURO pallets. On the bottom of the cart, is located a guide that enables attach the robot through its hitch pins.

### Cart with gravity roller conveyor

The gravity roller feed system allows to transport and automatically receive and transfer goods placed in the cuvettes. The system consists of a movable conveyor attached to the mobile robot using pins and a fixed conveyor permanently attached to the ground.

When the conveyors have docked, the latches on both conveyors are automatically released and shift the load on them.

### Cart with automatic rollers

Designed for transporting various types of containers, packages. The system consists of an automatic roller feeder attached to the mobile robot using its mandrels. The rollers are powered by powered engines from robot batteries and ensure fast and smooth flow of goods.

### Robotic arm adapter

It is a flexible solution ensuring maximum mobility and autonomous robot operation that optimizes production processes. The adapter is equipped with four additional wheels to ensure perfect stability, as well as a housing for a robot controller.

### Charging station


### Cart trolley with batteries


# MOBOT® FlatRunner HT (002) mobile robot


A mobile robot used to automate internal transport and transport heavy loads such as pallets or parcels. Automatically moves along the route.

- ▶ Easy to use  
Works safely with people while carrying your loads
- ▶ Increases production efficiency and reduces costs
- ▶ Automates production lines and intralogistics
- ▶ Can work with palletizing robots




 operating time up to 8 h  
on a single charge


 payload up to 500 kg

 Wi-Fi communication

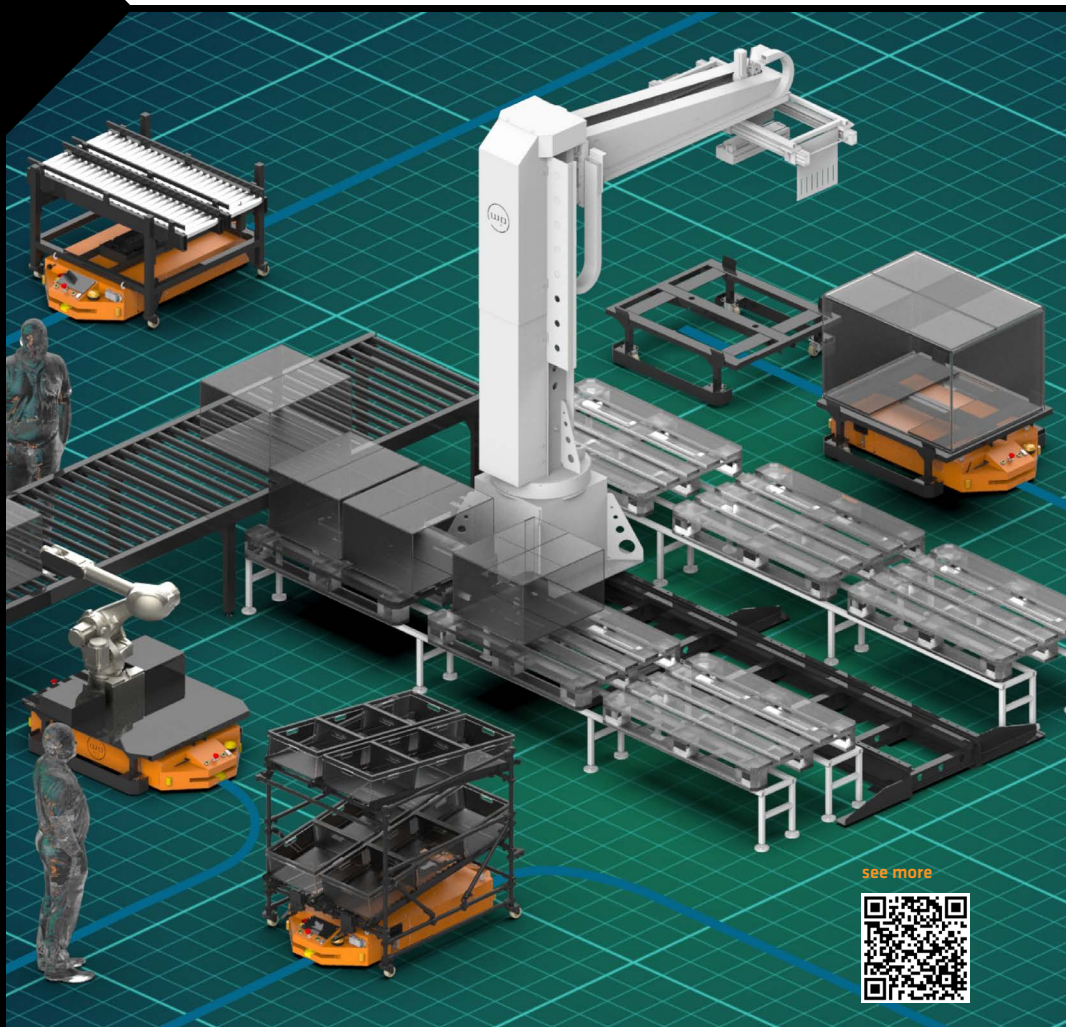
 dimensions  
1600 x 750 x 239 mm

 max speed  
3 km/h

 line navigation using the  
vision system

 system of retractable pins

**Intended use:** transport of heavy loads in industry and logistics



see more






Robot type	<b>MOBOT® AGV FlatRunner HT (002)</b>
<b>Payload and transport method</b>	
Transport method	Cart guided over the robot with the possibility of attaching using two automatic pins
Permissible total weight of the cart with load	500 kg
<b>Power supply</b>	
Manual battery charging connector	YES (24 V DC, max. 30 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	2 x traction battery 85 Ah /12 V The battery is mounted in a cassette allowing for quick replacement in the robot
Charger	- 30 A / 24 V charger connected manually - Optional charging station with 30A / 24V charger for charging replaceable battery cartridges - Optional contact module for automatic charging
Operating time at full load	~ 8 h
Operating time in standby mode	~ 40 h
Battery charging time	~ 3 h
<b>Speed and performance</b>	
Maximal speed	3 km/h
Nominal power	1200 W
Movement directions	Move forward / backward, turn
Turning radius	The possibility of turning back in place
Maximum surface slope	Robot designed for driving on a flat surface
<b>Navigation</b>	
Navigation	Navigation along the line using vision system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Connector	- Ethernet RJ45 - communication with PC, MODBUS TCP / IP - 18 pin connector, E-Stopx2, Reset, RS485 (Modbus RTU), CANopen, 2 x input, 24 VDC power supply output (2A) + 24 VDC power supply output (10 A)
<b>Drive and control</b>	
Drive	2x BLDC motor, wheels diameter 215 mm
Control and steering	- 1 x 7 "touch operator panel - 2 x emergency stop - 2 x emergency stop reset confirmation buttons - 1 x main power switch - 2 x function button - 1 x USB connector - 1 x Ethernet connector
<b>Sensors</b>	
Sensors	- 2 x vision system for tracking the line - 2 x 2D laser scanner with security function
Signaling	-- 2 x light and sound signaling devices - 2 x speaker (voice / music messages) - 4 x direction indicator
<b>Environment</b>	
Operating temperature range	5 ÷ 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	1600 x 750 x 239 mm
Total weight (with batteries)	~ 220 kg


# MOBOT® FlatRunner HT (004) mobile robot


A mobile robot used to automate internal transport and transport heavy loads such as pallets or parcels. Automatically moves along the route.

- ▶ Fast implementation without changes in the workplace
- ▶ Easy to use
- ▶ Works safely with people while carrying your loads
- ▶ Increases production efficiency and reduces costs
- ▶ LMS navigation ensures the autonomy of operation and flexibility of applications
- ▶ Automates production lines and intralogistics
- ▶ Can work with palletizing robots




 operating time up to 8 h  
on a single charge


 payload up to 500 kg

 Wi-Fi communication

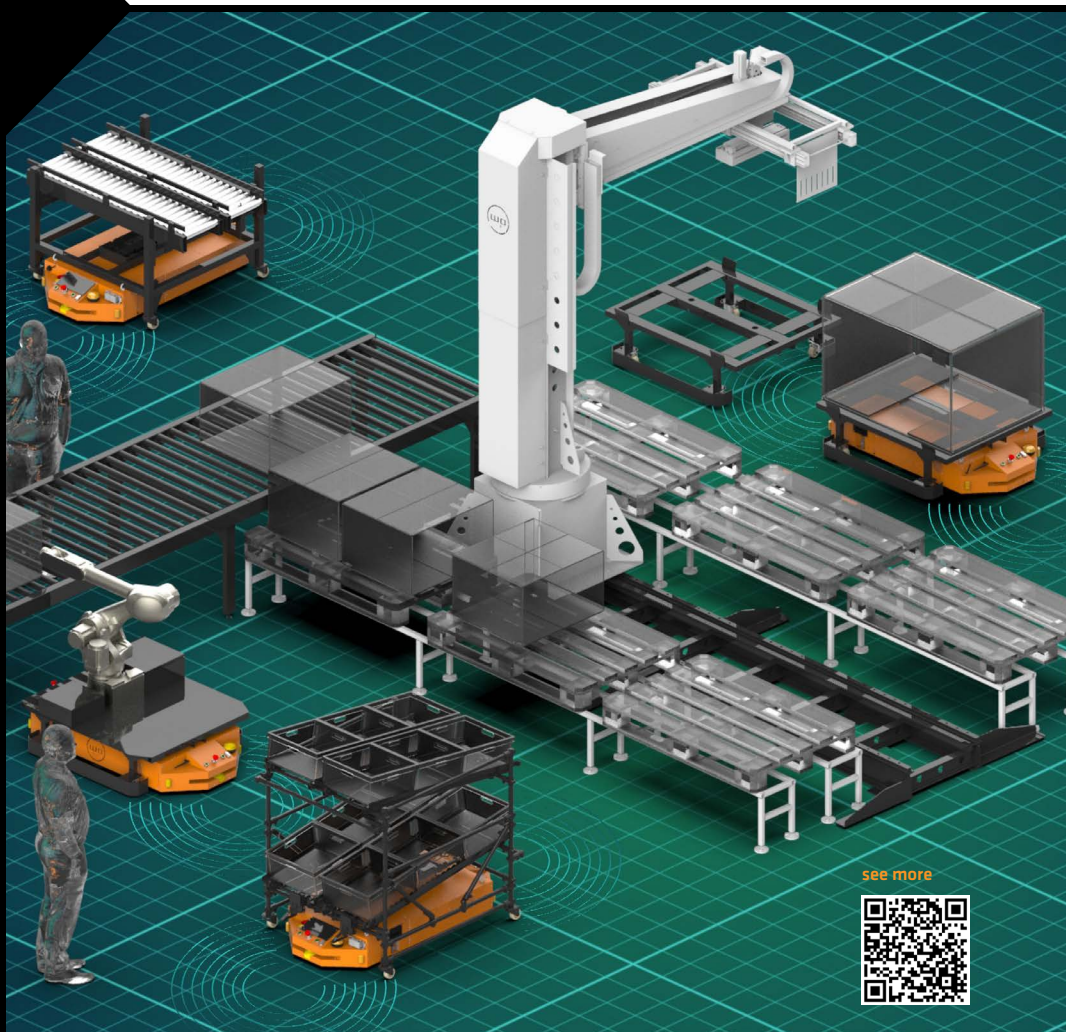
 dimensions  
1600 x 750 x 239 mm

 max speed  
3 km/h

 LMS system,  
line navigation using the  
vision system

 system of retractable pins

**Intended use:** transport of heavy  
loads in industry and logistics

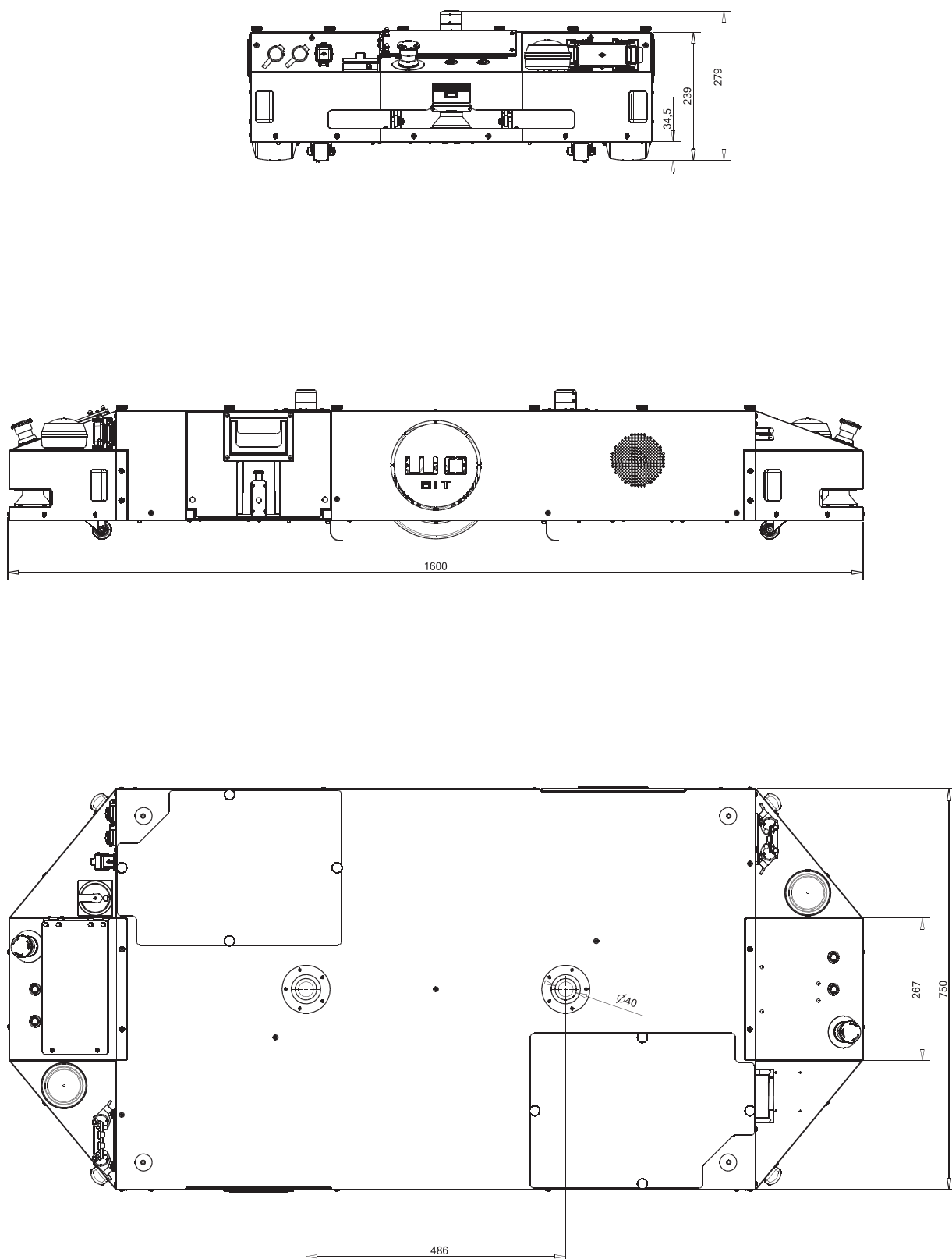


see more



Model robota	<b>MOBOT® AGV FlatRunner HT (004)</b>
<b>Payload and transport method</b>	
Transport method	Cart guided over the robot with the possibility of attaching using two automatic pins
Permissible total weight of the cart with load	500 kg
<b>Power supply</b>	
Manual battery charging connector	YES (24 V DC, max. 30 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	2 x traction battery 85 Ah /12 V The battery is mounted in a cassette allowing for quick replacement in the robot
Charger	- 30 A / 24 V charger connected manually - Optional charging station with 30A / 24V charger for charging replaceable battery cartridges - Optional contact module for automatic charging
Operating time at full load	~ 8 h
Operating time in standby mode	~ 40 h
Battery charging time	~ 3 h
<b>Speed and performance</b>	
Maximal speed	3 km/h
Nominal power	1200 W
Movement directions	Move forward / backward, turn
Turning radius	The possibility of turning back in place
Maximum surface slope	Robot designed for driving on a flat surface
<b>Navigation</b>	
Navigation	- LMS laser, intelligent and autonomous navigation * - Vision system for precise positioning * LMS - laser navigation system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Connector	- Ethernet RJ45 - communication with PC, MODBUS TCP / IP - 18 pin connector, E-Stopx2, Reset, RS485 (Modbus RTU), CANopen, 2 x input, 24 VDC power supply output (2A) + 24 VDC power supply output (10 A)
<b>Drive and control</b>	
Drive	2x BLDC motor, wheels diameter 215 mm
Control and steering	- 1 x 7 "touch operator panel - 2 x emergency stop - 2 x emergency stop reset confirmation buttons - 1 x main power switch - 2 x function button - 1 x USB connector - 1 x Ethernet connector
<b>Sensors</b>	
Sensors	- 2 x vision system for tracking the line - 2 x 2D laser scanner with security function
Signaling	-- 2 x light and sound signaling devices - 2 x speaker (voice / music messages) - 4 x direction indicator
<b>Environment</b>	
Operating temperature range	5 ÷ 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	1600 x 750 x 239 mm
Total weight (with batteries)	~ 220 kg





All dimensions are approximate values and can change.



## Accessories

### Transport cart for pallets

The transport cart is suitable for transporting standard EURO pallets. On the bottom of the cart, is located a guide that enables attach the robot through its hitch pins.

### Cart with gravity roller conveyor

The gravity roller feed system allows to transport and automatically receive and transfer goods placed in the cuvettes. The system consists of a movable conveyor attached to the mobile robot using pins and a fixed conveyor permanently attached to the ground.

When the conveyors have docked, the latches on both conveyors are automatically released and shift the load on them.

### Cart with automatic rollers

Designed for transporting various types of containers, packages. The system consists of an automatic roller feeder attached to the mobile robot using its mandrels. The rollers are powered by powered engines from robot batteries and ensure fast and smooth flow of goods.

### Robotic arm adapter

It is a flexible solution ensuring maximum mobility and autonomous robot operation that optimizes production processes. The adapter is equipped with four additional wheels to ensure perfect stability, as well as a housing for a robot controller.

### Charging station

### Cart trolley with batteries

# MOBOT® AGV MW mobile robots

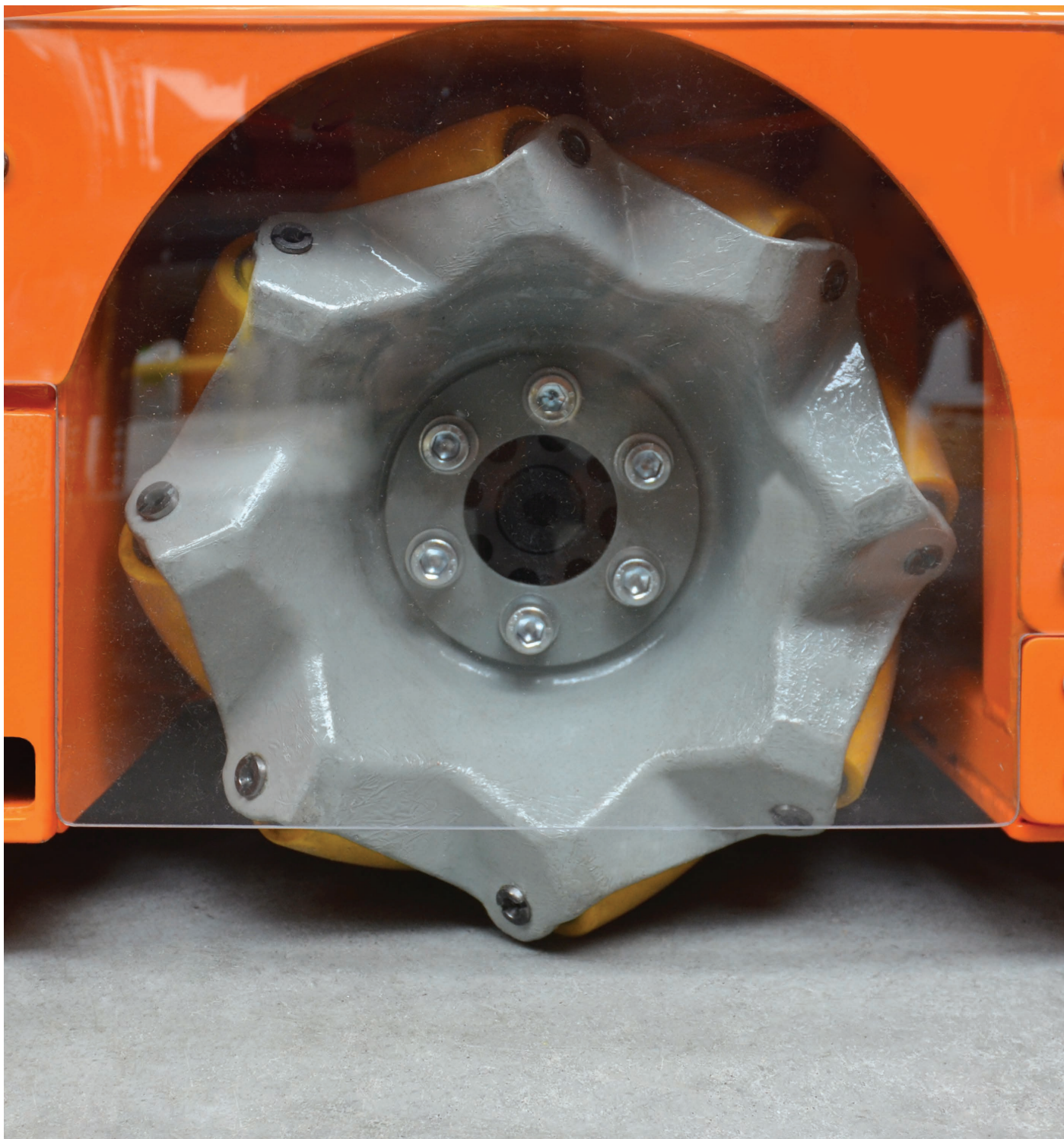
Four-wheel, four-wheel drive omnidirectional



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**Dynamic, agile, and precise.  
Optimize the transport of light and heavy loads.**





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MOBOT® AGV MW mobile self-driving robots are equipped with Mecanum wheels, ensuring the robot's holonomic, i.e. the ability to change the orientation of movement in place. Mecanum wheels consist of freely rotating rollers located at an angle of  $45^\circ$  on the circumference of the wheel.

Robots with this drive can perform longitudinal and transverse movement and rotate around their center, in a word move freely in many directions. What's more, the omnidirectional drive ensures very high positioning of robots with an accuracy of up to  $\pm 1$  mm.


Mobile robots with Mecanum wheels are designed for driving on a flat floor, and the maximum level of surface inclination is limited by the permissible angle of the robot's approach.


# MOBOT® eRunner MW mobile robot


An autonomous mobile robot with which you will automate internal transport. Ideal for transporting small, light loads. It travels independently along the programmed route.

- ▶ Fast implementation without changes in the workplace
- ▶ Easy to use
- ▶ Works safely with people while carrying your loads
- ▶ Increases production efficiency and reduces costs
- ▶ LMS navigation ensures the autonomy of operation and flexibility of applications
- ▶ The omnidirectional drive ensures freedom of maneuver and reduces the time it takes to complete tasks
- ▶ For hospitals, offices, laboratories, light electronic production




 operating time up to 8 h on a single charge


 payload up to 200 kg

 Wi-Fi communication

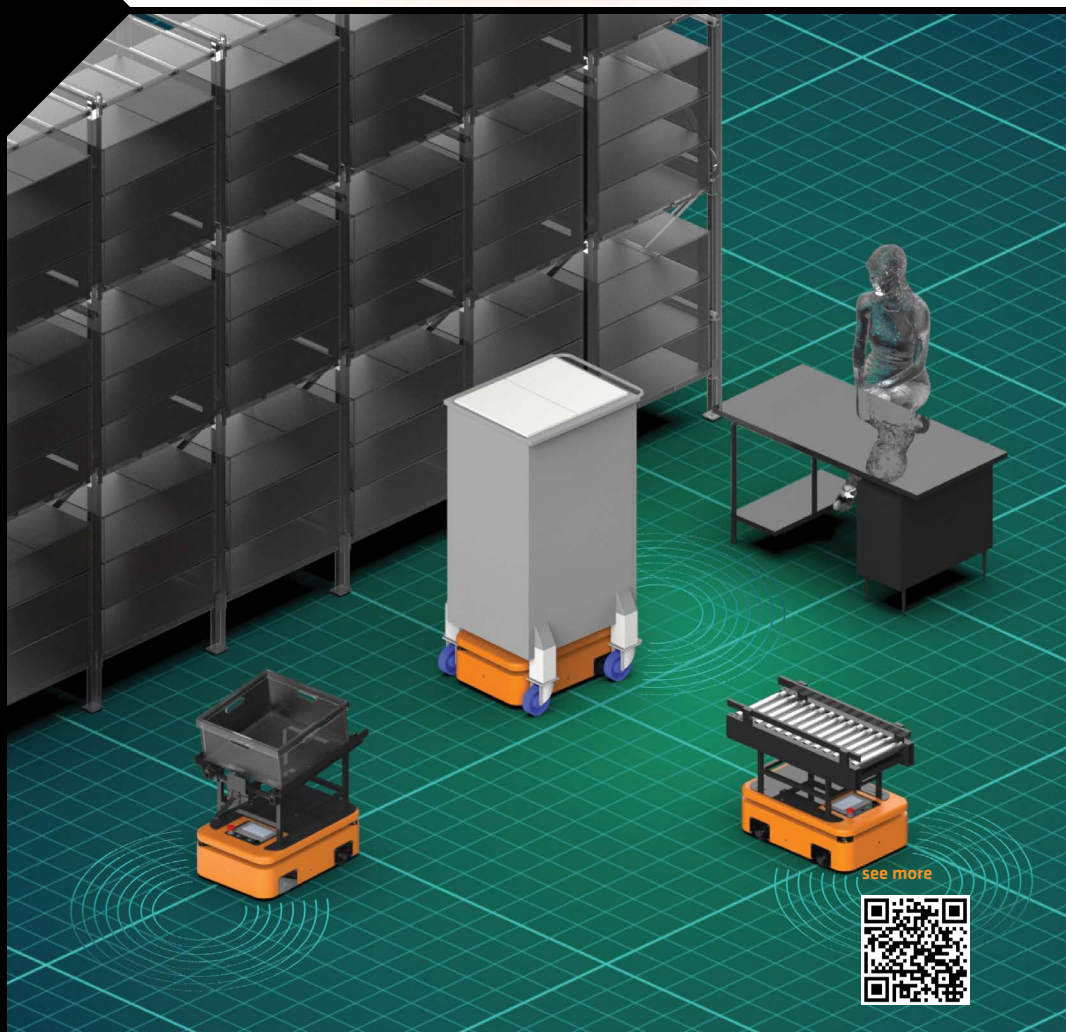
 dimensions  
825 x 546 x 365 mm

 max speed  
3,5 km/h

 LMS system,  
line navigation using the  
vision system

 Mecanum wheels  
-movement in any direction

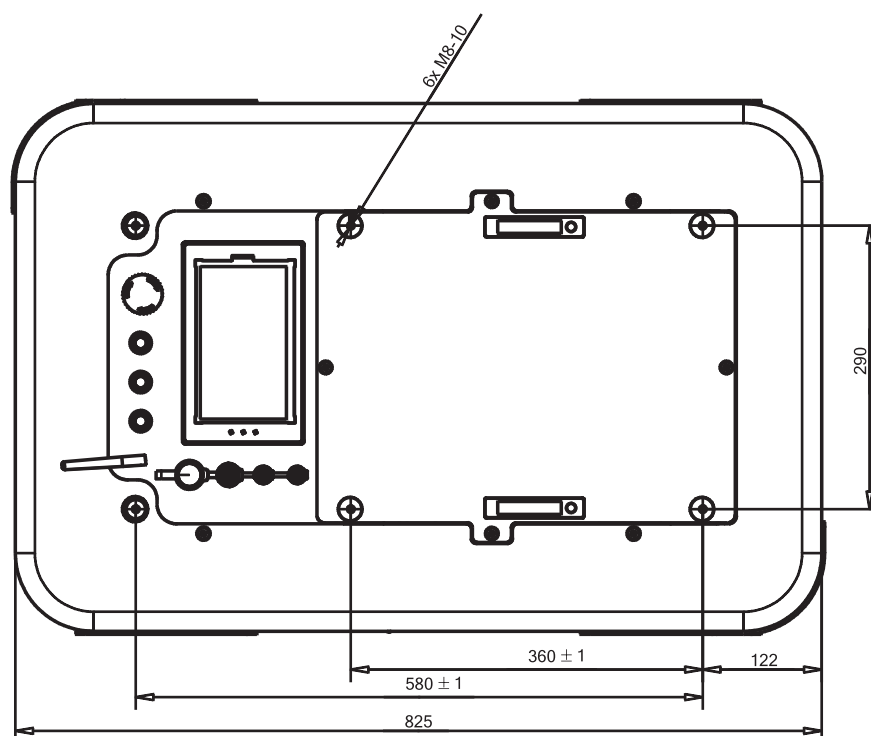
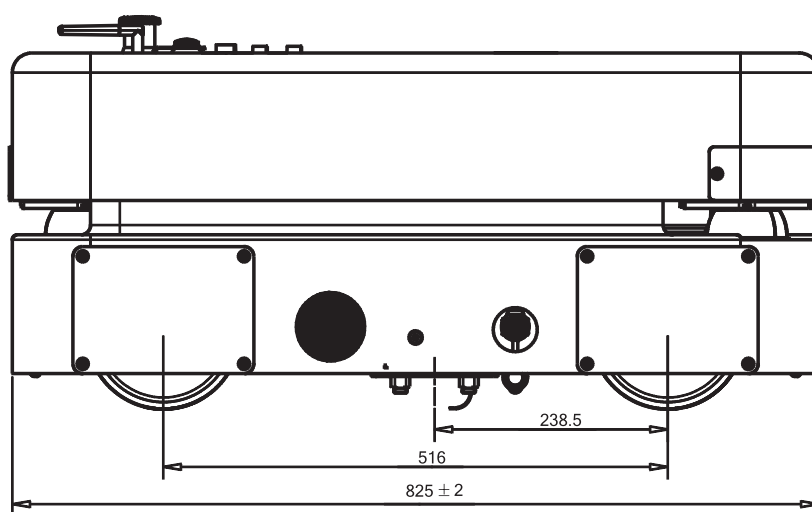
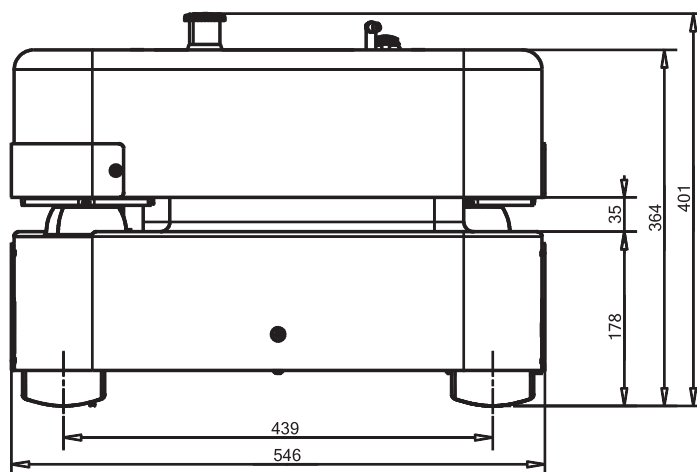
**Intended use:** smaller transport tasks in industry, logistics





Robot type	<b>MOBOT® AGV eRunner MW</b>
<b>Payload and transport method</b>	
Transport method	Fastening the load on the upper surface of the robot with 8 M8 screws
Permissible total weight of the load	200 kg
<b>Power supply</b>	
Manual battery charging connector	YES (48 V DC, max. 20 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	Battery Li-Ion 20 Ah / 48 V
Charger	Standard 5A charger, connected manually with a connector - Optional 20A quick charger connected manually via connector - Optional contact module for automatic charging
Operating time at full load	~ 8 h
Operating time in standby mode	~ 40 h
Battery charging time	4 h (5 Ah charger), ~ 1 h (20 Ah charger)
<b>Speed and performance</b>	
Maximal speed	3,5 km/h
Nominal power	1000 W
Movement directions	Possibility of riding in all directions thanks to Mecanum wheels
Turning radius	Possibility of turning in place
Maximum surface slope	Restricted by the allowed approach angle of the robot
<b>Navigation</b>	
Navigation	Natural and intelligent navigation using the LMS * Navigating the line using a vision system * LMS - laser navigation system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Communication connector	- Ethernet RJ45 - communication with PC, MODBUS TCP / IP - I / O switch: 24 VDC supply output (max. 2 A) + 2 inputs + 2 out (max. 0.5A) + CAN - Optional power connector: 24 VDC power supply output (max. 10A) + 2 power outputs (max. 10 A) - Optional external safety circuit connector
<b>Drive and control</b>	
Drive	4 x DC servo motor (brushless), wheels diameter 156,5 mm
Control and steering	- 1 x 7 "touch operator panel - 1 x emergency stop - 1 x emergency stop reset confirmation button - 1 x power switch - 1 x function button - 1 x USB connector - 1 x Ethernet connector
<b>Sensors</b>	
Sensors	- 2 x vision system for tracking the line - 2 x 2D laser scanner with security function
Signaling	1 x buzzer - 1 x speaker (voice / music messages) - 4 x direction indicator
<b>Environment</b>	
Operating temperature range	5 ÷ 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	825 x 546 x 365 mm
Total weight (with batteries)	~ 70 kg





All dimensions are approximate values and can change.



## Accessories

### Adapter for transporting boxes

A special adapter ensures convenient transport of boxes and small items. The details are placed at the right height, ergonomic for the user. This solution maximizes efficiency, optimizes material flow, and allows better use of available space.

### Adapter with automatic rollers

Designed for transporting various types of containers, packages. The system consists of an automatic roller feeder attached to an AGV robot using a special adapter. The rollers are driven by motors powered by robot batteries and ensure a fast and smooth flow of goods.

This solution maximizes efficiency, optimizes material flow, and allows better use of available space.

### Adapter with rack

Special adapter with a rack suitable for transporting small items such as PCBs, electronic components, cardboard boxes, etc. The rack has retractable shelves placed at the appropriate height and position, providing the user with ergonomic access. This solution maximizes efficiency, optimizes material flow, and allows better use of available space.

# MOBOT® CubeRunner MW mobile robots

An autonomous mobile robot with which you will automate internal transport. Ideal for transporting medium-sized loads, e.g. litter trays or parcels. It travels independently along the programmed route.

- Fast implementation without changes in the workplace
- Easy to use
- Works safely with people while carrying your loads
- Increases production efficiency and reduces costs
- LMS navigation ensures the autonomy of operation and flexibility of applications
- The omnidirectional drive ensures freedom of maneuver and reduces the time it takes to complete tasks
- For hospitals, offices, laboratories, light electronic production



operating time up to 8 h  
on a single charge



payload up to 200 kg



Wi-Fi communication



dimensions  
800 x 550 x 453 mm



max speed  
3,5 km/h

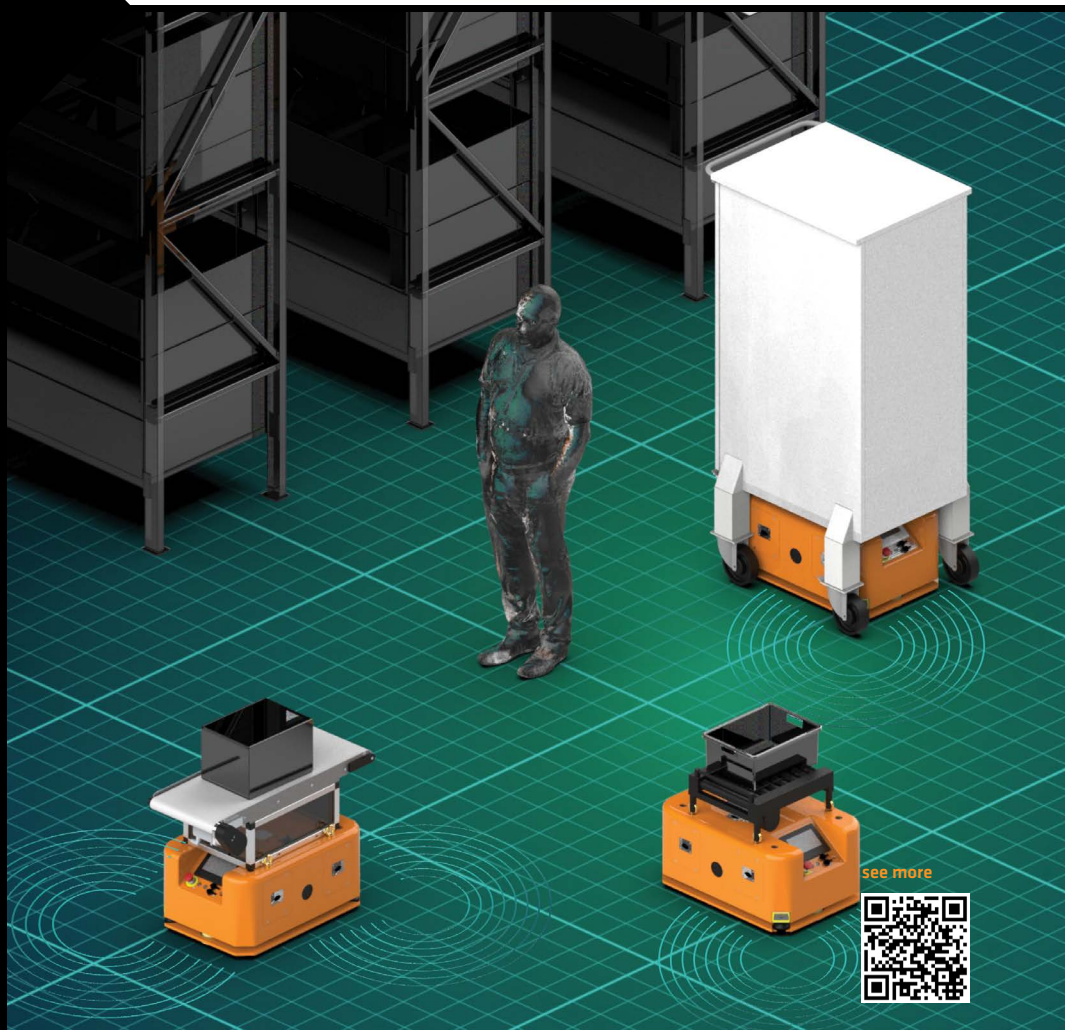


LMS system,  
line navigation using the  
vision system



Mecanum wheels  
-movement in any direction

**Intended use:** transport of medium-sized loads in industry, logistics and hospitals

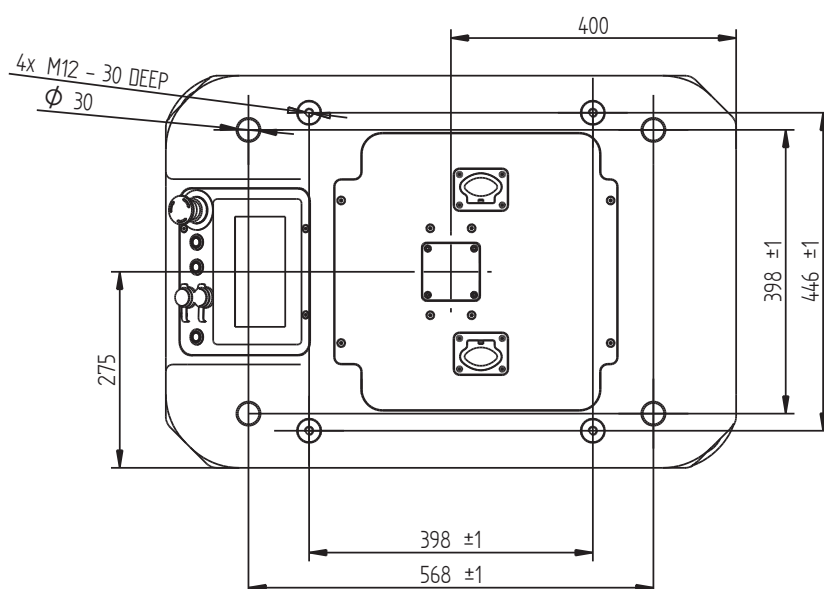
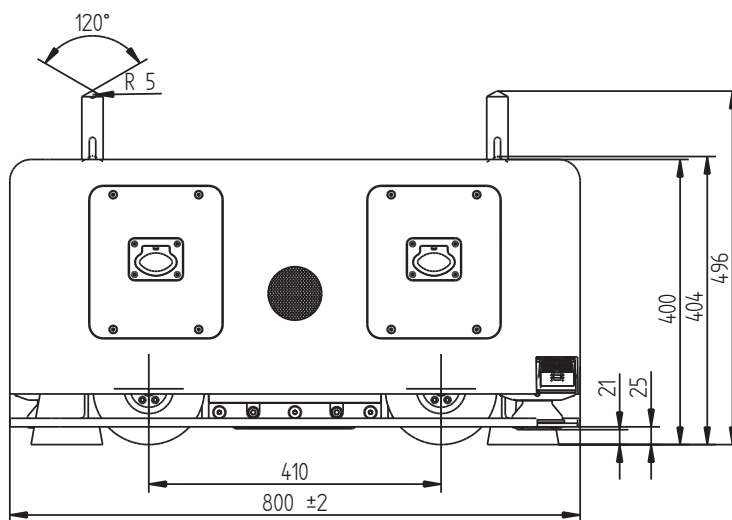
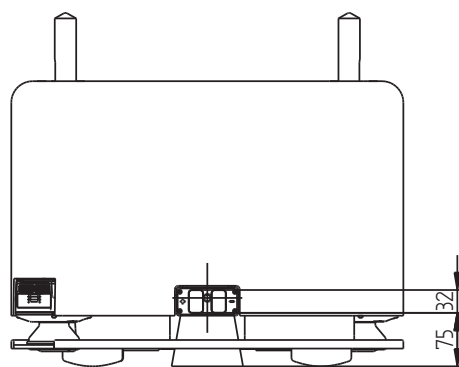
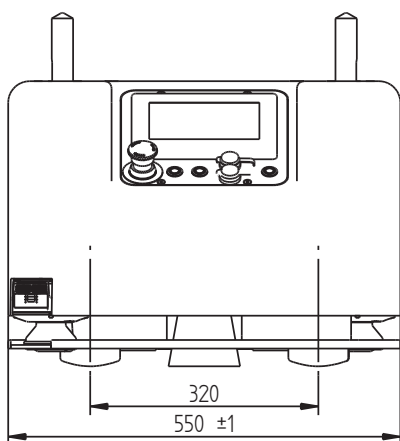


see more

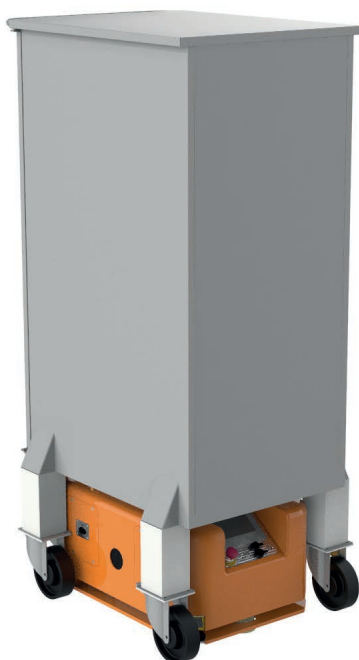




Robot type	<b>MOBOT®AGV CubeRunner MW</b>
<b>Payload and transport method</b>	
Transport method	Fastening the load on the upper surface of the robot with 4 M8 screws or using the load lifting system * Lifting loads to a height of 70 mm (to lift the load reaching over the substrate scanners navigation and safety)
Permissible total weight of the load	200 kg
<b>Power supply</b>	
Manual battery charging connector	YES (44 V DC, max. 20 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	30 Ah Li-Ion battery / 44 V
Charger	- Standard 5A charger, connected manually with a connector - Optional 20A quick charger connected manually via connector - Optional contact module for automatic charging
Operating time at full load	~ 12 h
Operating time in standby mode	~ 40 h
Battery charging time	~ 6 h (5Ah charger), ~ 1.5 h (30 Ah charger)
<b>Speed and performance</b>	
Maximal speed	3,5 km/h
Nominal power	1000 W
Movement directions	Possibility of riding in all directions thanks to Mecanum wheels
Turning radius	Possibility of turning in place
Maximum surface slope	Restricted by the allowed approach angle of the robot
<b>Navigation</b>	
Navigation	Natural and intelligent navigation using the LMS * Navigating the line using a vision system * LMS - laser navigation system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Connector	- Ethernet RJ45 - communication with PC, MODBUS TCP / IP - I / O switch: 24 VDC supply output (max. 2 A) + 2 inputs + 2 out (max. 0.5A) + CAN
<b>Drive and control</b>	
Drive	4x servo motor (brushless), wheels diameter 156,5 mm
Control and steering	- 1 x 7 "touch operator panel - 1 x emergency stop - 1 x emergency stop reset confirmation buttons - 1 x power switch - 1 x function button - 1 x USB connector - 1 x Ethernet connector
<b>Sensors</b>	
Sensors	- 2 x vision system for tracking the line - 2 x 2D laser scanner with security function
Signaling	- 1 x buzzer - 1 x speaker (voice / music messages) - 4 x signal lighting
<b>Environment</b>	
Operating temperature range	5 ÷ 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	800 x 550 x 453 mm
Total weight (with batteries)	~150 kg



All dimensions are approximate values and can change.



## Accessories

### Adapter with automatic rollers

Designed for transporting various types of containers, packages. The system consists of an automatic roller feeder attached to an AGV robot using a special adapter. The rollers are driven by motors powered by robot batteries and ensure a fast and smooth flow of goods.

This solution maximizes efficiency, optimizes material flow, and allows better use of available space.

### Adapter with belt conveyor

Designed for transporting various types of containers, packages. The system consists of an automatic belt conveyor powered by robot batteries. An excellent solution to improve the flow of goods between different stages of the production process.

### Adapter with rack

Special adapter with a rack suitable for transporting small items such as PCBs, electronic components, cardboard boxes, etc. The rack has retractable shelves placed at the appropriate height and position, providing the user with ergonomic access. This solution maximizes efficiency, optimizes material flow, and allows better use of available space.





# MOBOT® FlatRunner MW HT mobile robot


An autonomous mobile robot with which you will automate internal transport. Ideal for transporting medium-sized loads, e.g. litter trays or parcels. It travels independently along the programmed route.

- Fast implementation without changes in the workplace
- Easy to use
- Works safely with people while carrying your loads
- Increases production efficiency and reduces costs
- LMS navigation ensures the autonomy of operation and flexibility of applications
- The omnidirectional drive ensures freedom of maneuver and reduces the time it takes to complete tasks
- For transporting heavy loads on production lines and in warehouses




 operating time up to 5 h  
on a single charge


 payload up to 500 kg

 Wi-Fi communication

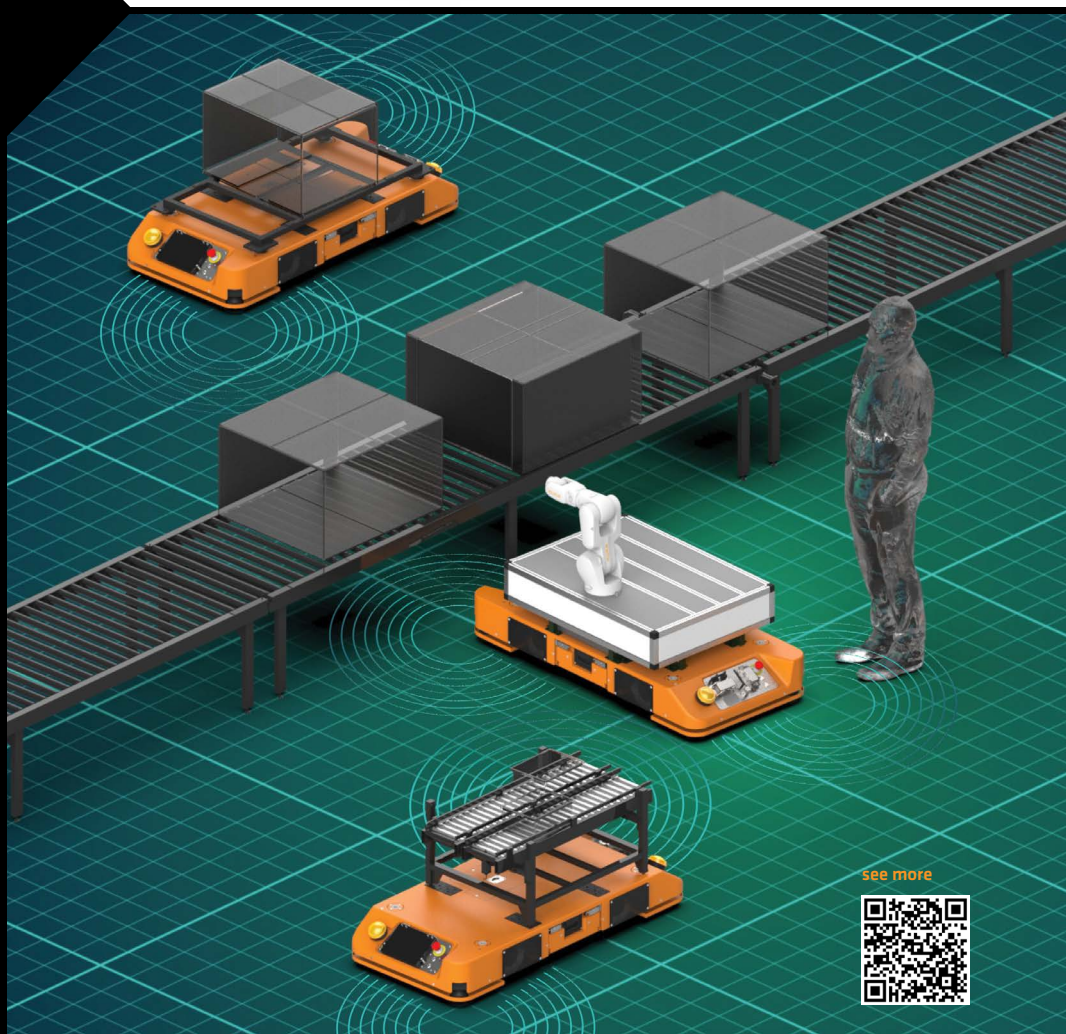
 dimensions  
1600 x 710 x 220 mm

 max speed  
3,5 km/h

 LMS system,  
line navigation using  
the vision system

 Mecanum wheels  
-movement in any direction

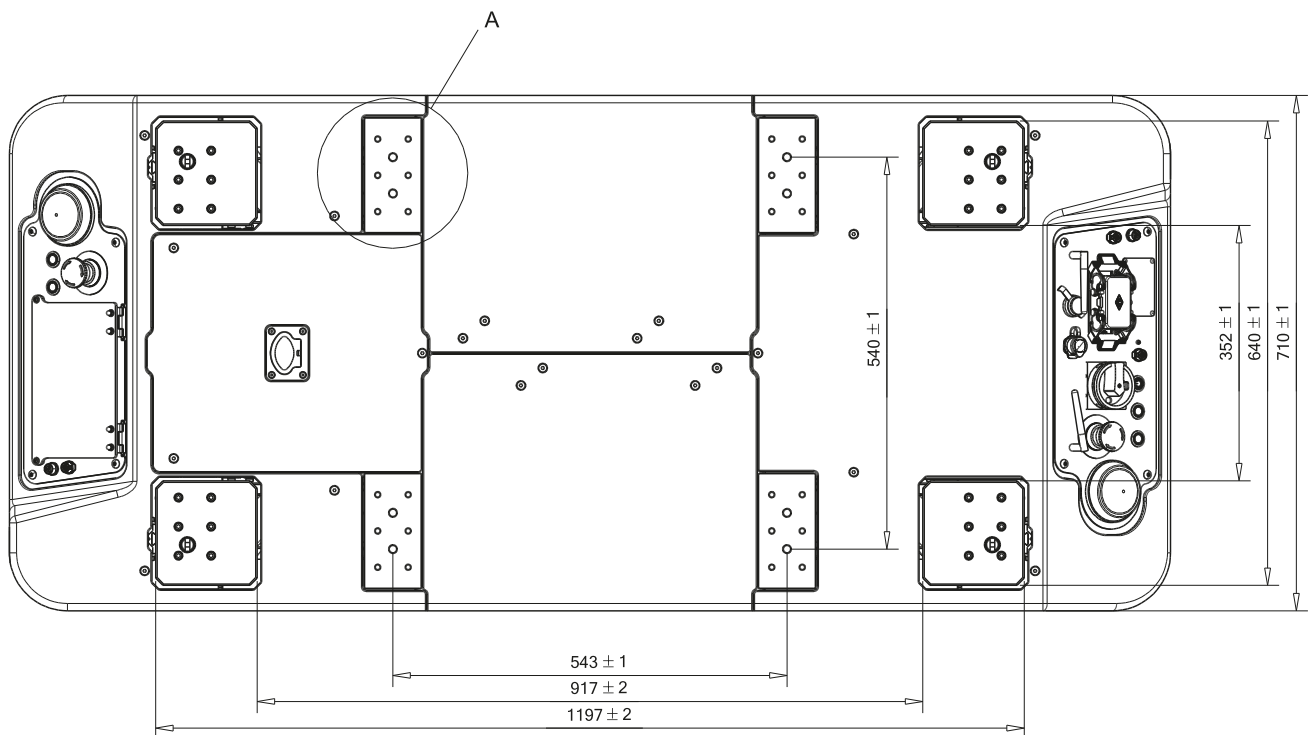
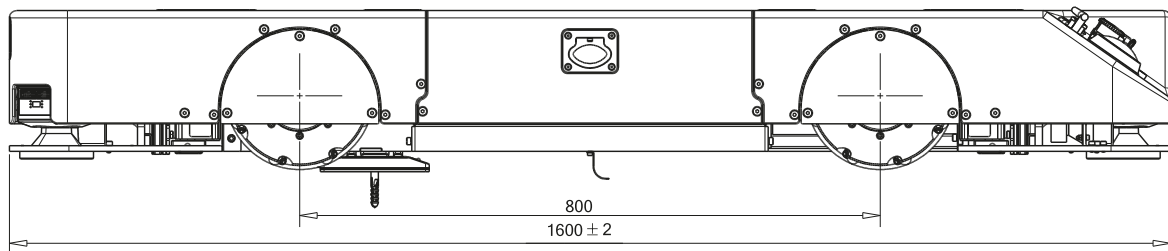
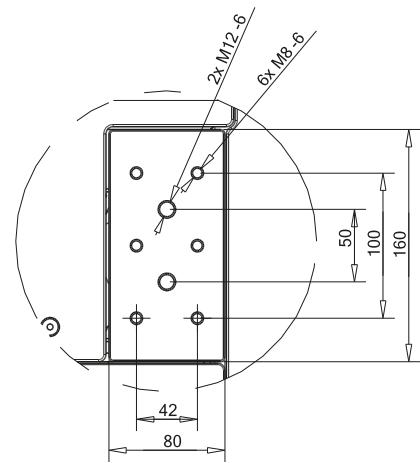
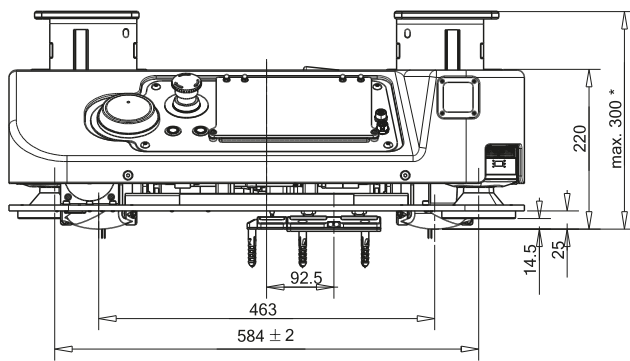
**Intended use:** transport of heavy loads in industry, logistics



see more



Robot type	<b>MOBOT®AGV FlatRunner MW HT</b>
<b>Payload and transport method</b>	
Transport method	Fastening the load on the upper surface of the robot with 4 M8 screws or using the load lifting system* * raising the load to a height of 70 mm (allows lifting the load reaching the ground above navigation and safety scanners)
Permissible total weight of the cart with load	500 kg
<b>Power supply</b>	
Manual battery charging connector	YES (44 V DC, max. 20 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	50 Ah Li-Ion battery / 44 V The battery is mounted in a cassette allowing for quick replacement in the robot
Charger	- 20 A / 44 V charger connected manually - Optional charging station with 20A / 44 V charger for charging replaceable battery cartridges - Optional contact module for automatic charging
Operating time at full load	~ 8 h
Operating time in standby mode	~ 40 h
Battery charging time	~2,5 h
<b>Speed and performance</b>	
Maximal speed	3,5 km/h
Nominal power	2400 W
Movement directions	Possibility of riding in all directions thanks to Mecanum wheels
Turning radius	Possibility of turning in place
Maximum surface slope	Robot designed for driving on a flat surface
<b>Navigation</b>	
Navigation	Natural and intelligent navigation using the LMS * Navigating the line using a vision system * LMS - laser navigation system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Connector	- Ethernet RJ45 - communication with PC, MODBUS TCP / IP - 18 pin connector, E-Stopx2, Reset, RS485 (Modbus RTU), CANopen, 2 x input, 24 VDC power supply output (2A) + 24 VDC power supply output (10 A)
<b>Drive and control</b>	
Drive	4x BLDC servo motor, wheels diameter 203,2 mm
Control and steering	- 1 x 7 "touch operator panel - 2 x emergency stop - 2 x emergency stop reset confirmation buttons - 1 x main power switch - 2 x function button - 1 x USB connector - 1 x Ethernet connector
<b>Sensors</b>	
Sensors	- 2 x vision system for tracking the line - 2 x 2D laser scanner with security function
Signaling	- 2 x light and sound signaling devices - 2 x speaker (voice / music messages) - 4 x direction indicator
<b>Environment</b>	
Operating temperature range	5 ÷ 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	1600 x 710 x 220 mm
Total weight (with batteries)	~200 kg



All dimensions are approximate values and can change.





## Accessories

### Robotic arm adapter

It is a flexible solution ensuring maximum mobility and autonomous robot operation that optimizes production processes. The adapter is equipped with four additional wheels to ensure perfect stability, as well as a housing for a robot controller.

### Adapter with automatic rollers

Designed for transporting various types of containers, packages. The system consists of an automatic roller feeder attached to an AGV robot using a special adapter. The rollers are driven by motors powered by robot batteries and ensure a fast and smooth flow of goods.

This solution maximizes efficiency, optimizes material flow, and allows better use of available space.

### Automatic load lifting system

The load lifting system enables automatic picking and placing of pallets and large cargo to compatible docks. It allows for lifting loads to a height of 70 mm (to lift the load reaching over the substrate navigation scanners and security).

# MOBOT® FlatRunner MW Light mobile robot

An autonomous mobile robot with which you will automate internal transport. Ideal for transporting medium-sized loads, e.g. litter trays or parcels. It travels independently along the programmed route.

- Fast implementation without changes in the workplace
- Easy to use
- Works safely with people while carrying your loads
- Increases production efficiency and reduces costs
- LMS navigation ensures the autonomy of operation and flexibility of applications
- The omnidirectional drive ensures freedom of maneuver and reduces the time it takes to complete tasks
- Automates production lines and intralogistics
- Can work with palletizing robots



operating time up to 12 h  
on a single charge



payload up to 1000 kg



Wi-Fi communication



dimensions  
1800 x 1147 x 277 mm



max speed  
3,5 km/h



LMS system,  
line navigation using the  
vision system



Mecanum wheels  
-movement in any direction

**Intended use:** transport of heavy  
loads in industry, logistics

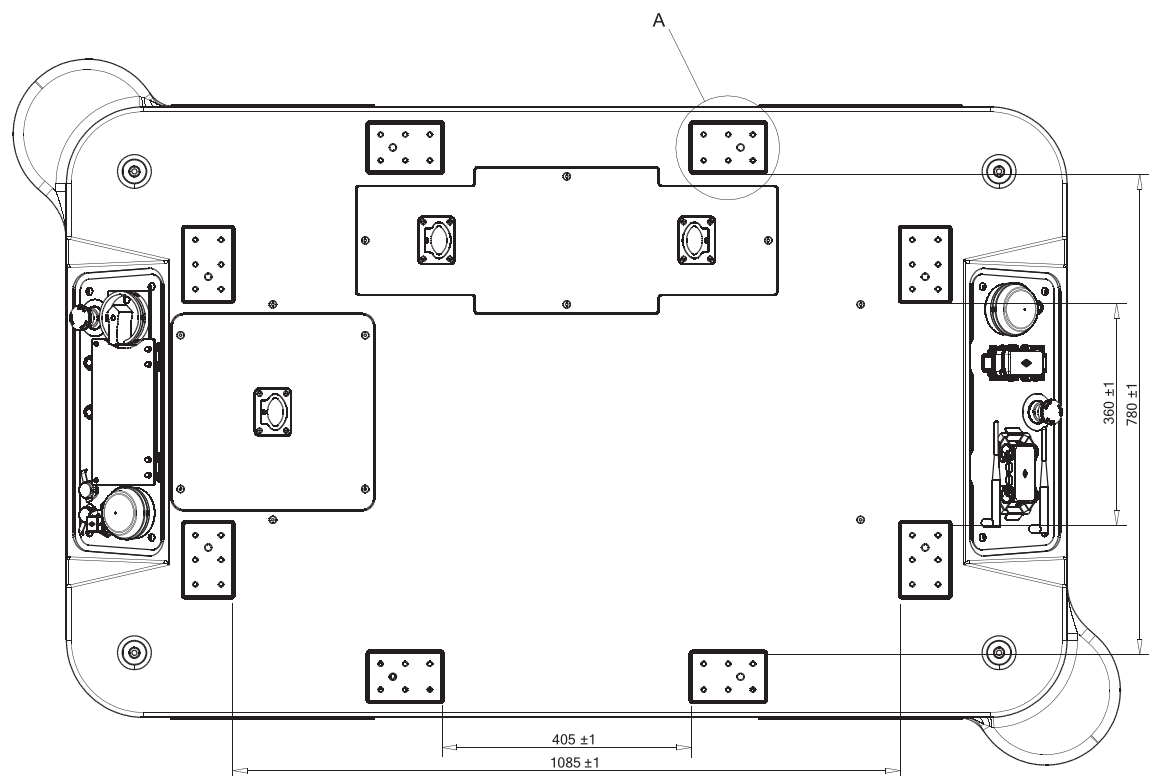
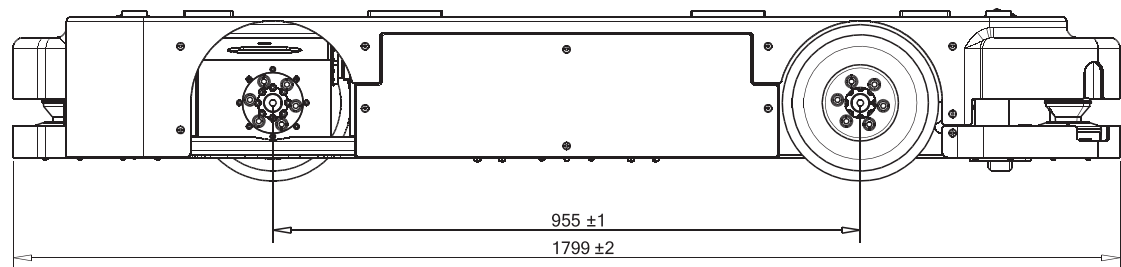
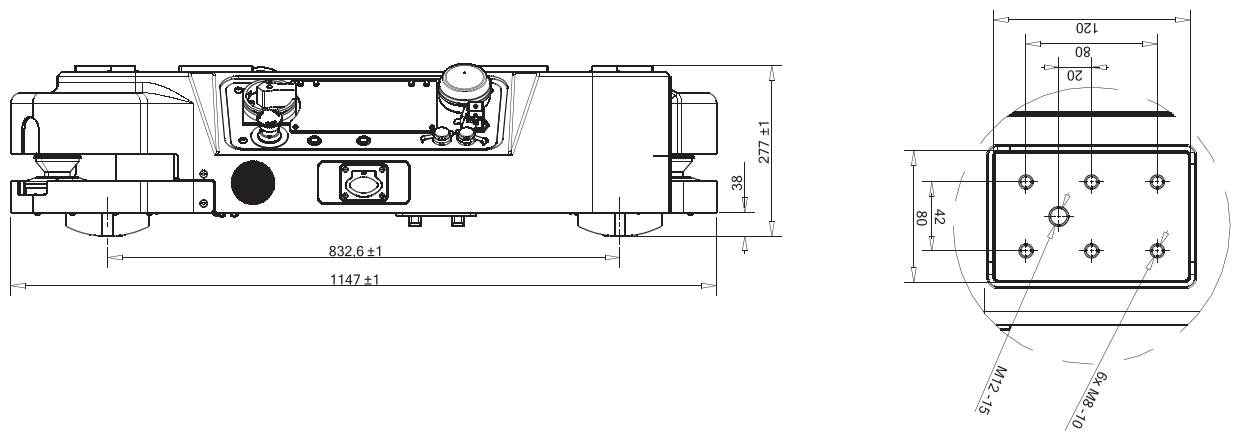


see more



Robot type	<b>MOBOT®AGV FlatRunner MW Light (004)</b>
<b>Payload and transport method</b>	
Transport method	Fastening the load on the upper surface of the robot with 4 M8 screws or using the load lifting system * raising the load to a height of 70 mm (allows lifting the load reaching the ground above navigation and safety scanners)
Permissible total weight of the cart with load	1000 kg
<b>Power supply</b>	
Manual battery charging connector	YES (24 V DC, max. 50 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	2x Traction battery 158 Ah/ 12 V The battery is mounted in a cassette allowing for quick replacement in the robot
Charger	- 50 A / 24 V charger connected manually - Optional charging station with 50A / 24 V charger for charging replaceable battery cartridges - Optional contact module for automatic charging
Operating time at full load	~ 12 h
Operating time in standby mode	~ 40 h
Battery charging time	~3,5 h
<b>Speed and performance</b>	
Maximal speed	3,5 km/h
Nominal power	2400 W
Movement directions	Possibility of riding in all directions thanks to Mecanum wheels
Turning radius	Possibility of turning in place
Maximum surface slope	Robot designed for driving on a flat surface
<b>Navigation</b>	
Navigation	Natural and intelligent navigation using the LMS * Navigating the line using a vision system * LMS - laser navigation system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Connector	- Ethernet RJ45 - communication with PC, MODBUS TCP / IP - 18 pin connector, E-Stopx2, Reset, RS485 (Modbus RTU), CANopen, 2 x input, 24 VDC power supply output (2A) + 24 VDC power supply output (10 A)
<b>Drive and control</b>	
Drive	4 x servo motor (brushless), wheels with a diameter of 253 mm
Control and steering	- 1 x 7 "touch operator panel - 2 x emergency stop (side A + B) - 2 x emergency stop reset confirmation button (page A + B) - 1 x main power switch - 1 x START button - 1 x USB connector - 1 x Ethernet connector
<b>Sensors</b>	
Sensors	- 2 x vision system for tracking the line - 2 x 2D laser scanner with security function
Signaling	- 2 x light and sound signaling devices - 2 x speaker (voice / music messages) - 4 x direction indicator
<b>Environment</b>	
Operating temperature range	5 ÷ 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	1800 x 1147 x 277 mm
Total weight (with batteries)	~445 kg





All dimensions are approximate values and can change.



## Accessories

### Robotic arm adapter

It is a flexible solution ensuring maximum mobility and autonomous robot operation that optimizes production processes. The adapter is equipped with four additional wheels to ensure perfect stability, as well as a housing for a robot controller.

### Adapter with automatic rollers

Designed for transporting various types of containers, packages. The system consists of an automatic roller feeder attached to an AGV robot using a special adapter. The rollers are driven by motors powered by robot batteries and ensure a fast and smooth flow of goods.

This solution maximizes efficiency, optimizes material flow, and allows better use of available space.

### Automatic load lifting system

The load lifting system enables automatic picking and placing of pallets and large cargo to compatible docks. It allows for lifting loads to a height of 70 mm (to lift the load reaching over the substrate navigation scanners and security).

### Charging station


### Cart trolley with batteries


# MOBOT® FlatRunner MW (004) mobile robot


which you will automate internal transport. Ideal for transporting medium-sized loads, e.g. litter trays or parcels. It travels independently along the programmed route.


- ▶ Fast implementation without changes in the workplace
- ▶ Easy to use
- ▶ Works safely with people while carrying your loads
- ▶ Increases production efficiency and reduces costs
- ▶ LMS navigation ensures the autonomy of operation and flexibility of applications
- ▶ The omnidirectional drive ensures freedom of maneuver and reduces the time it takes to complete tasks
- ▶ Automates production lines and intralogistics
- ▶ Can work with palletizing robots




 operating time up to 8 h  
on a single charge


 payload up to 1800 kg

 Wi-Fi communication

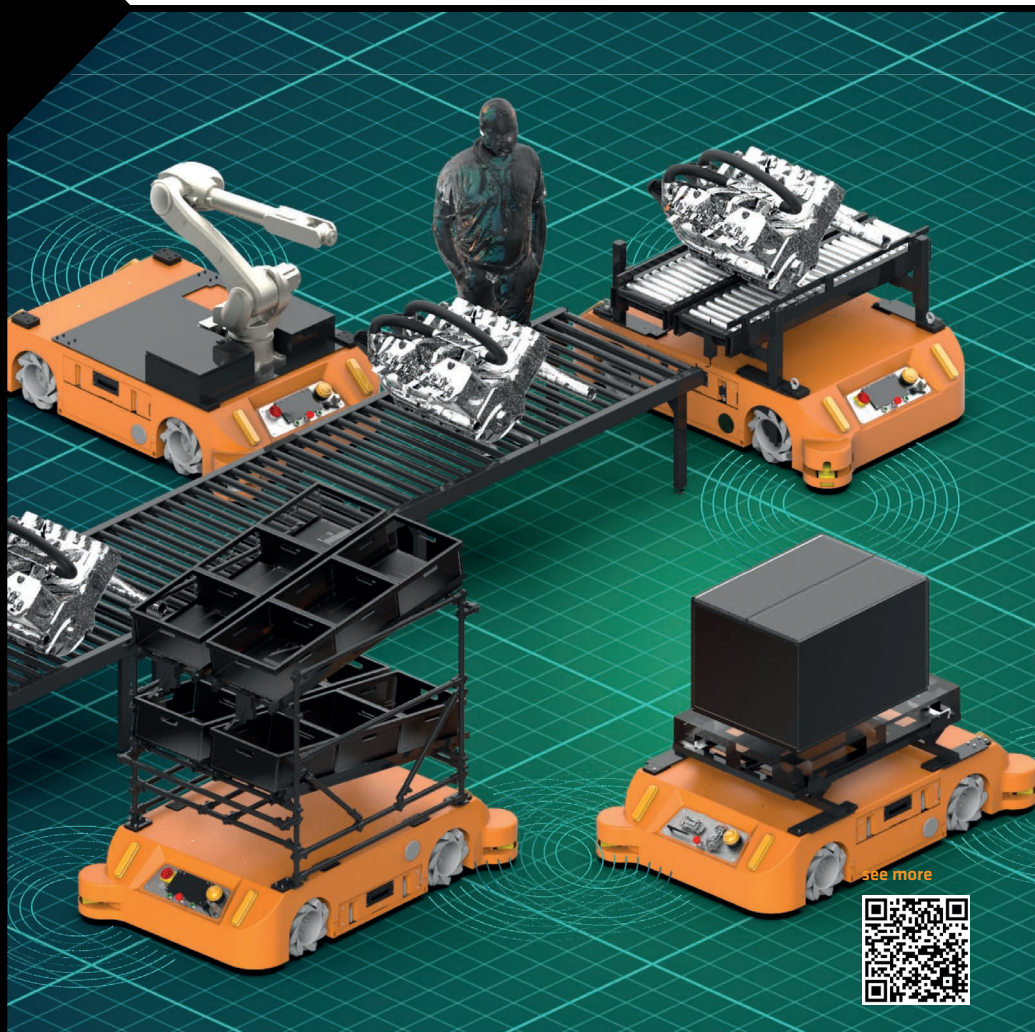
 dimensions  
1973 x 1254 x 420 mm

 max speed  
3 km/h

 LMS system,  
line navigation using the  
vision system

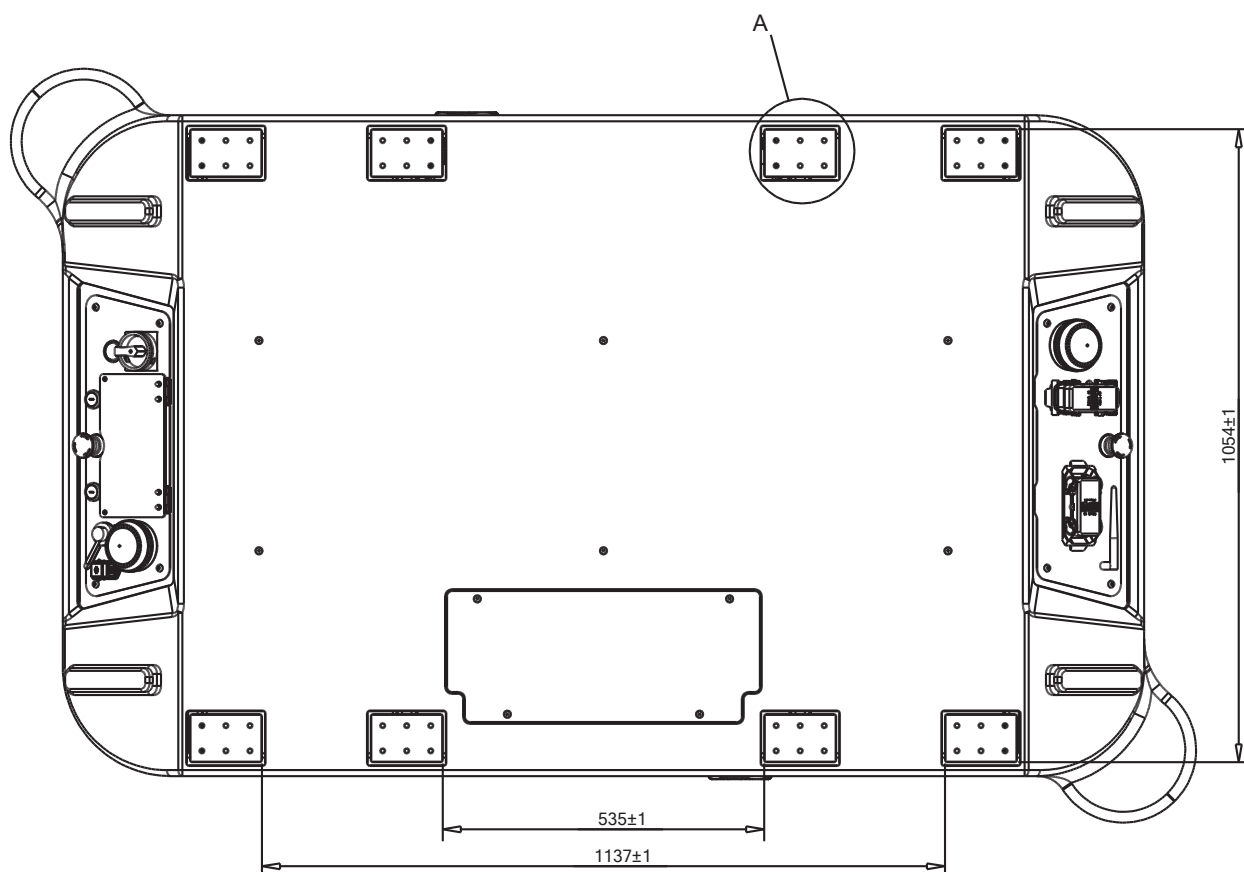
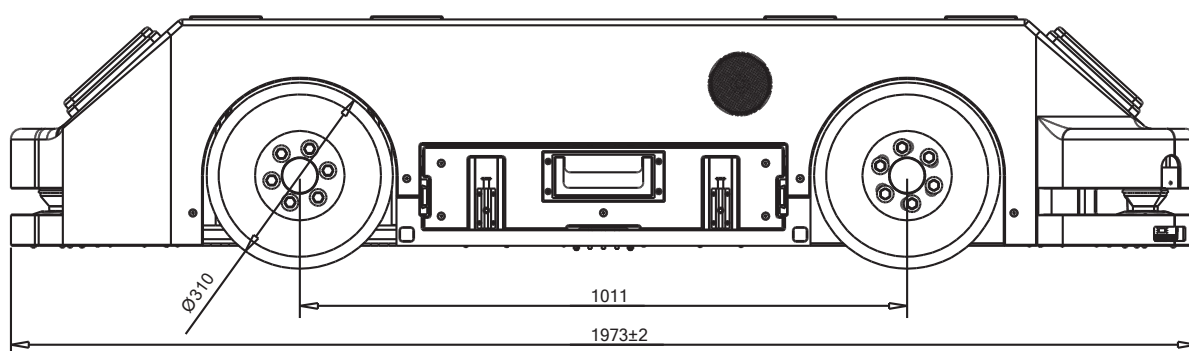
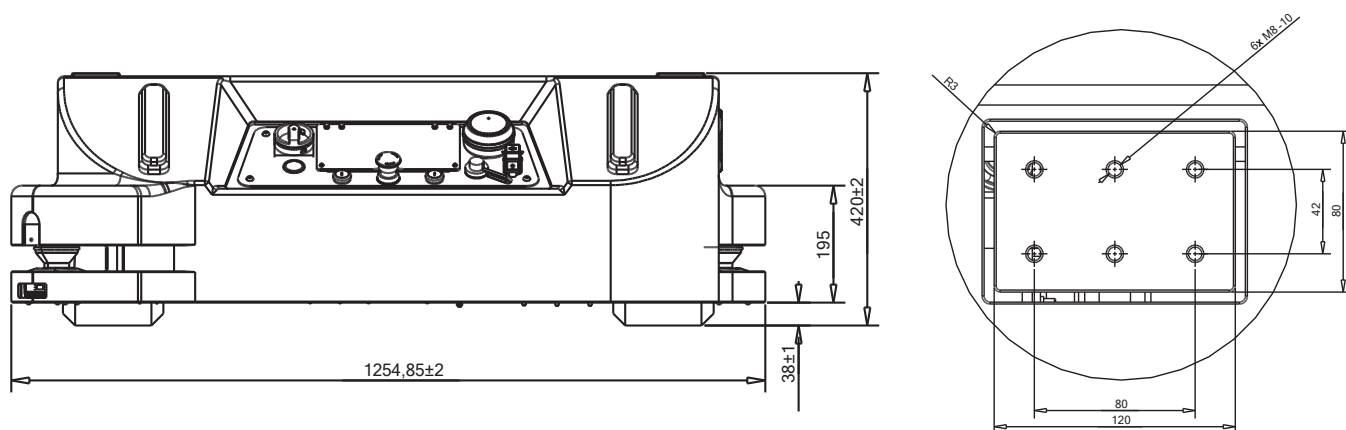
 Mecanum wheels  
-movement in any direction

**Intended use:** transport of very heavy loads in industry, logistics





Robot type	<b>MOBOT® AGV FlatRunner MW (004)</b>
<b>Payload and transport method</b>	
Transport method	Fastening the load on the upper surface of the robot with 4 M8 screws or using the load lifting system * raising the load to a height of 70 mm (allows lifting the load reaching the ground above navigation and safety scanners)
Permissible total weight of the cart with load	1800 kg
<b>Power supply</b>	
Manual battery charging connector	YES (24 V DC, max. 50 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	2 x traction battery 158 Ah / 12 V or 4 x traction battery 158 Ah / 12 V The battery is mounted in a cassette allowing for quick replacement in the robot
Charger	- 50 A / 24 V charger connected manually - Optional charging station with 50A / 24 V charger for charging replaceable battery cartridges - Optional contact module for automatic charging
Operating time at full load	~ 8 h
Operating time in standby mode	~ 40 h
Battery charging time	~3 h / 7 h
<b>Speed performance</b>	
Maximal speed	3,0 km/h
Nominal power	4500 W
Movement directions	Possibility of riding in all directions thanks to Mecanum wheels
Turning radius	Possibility of turning in place
Maximum surface slope	Robot designed for driving on a flat surface
<b>Navigation</b>	
Navigation	Natural and intelligent navigation using the LMS * Navigating the line using a vision system * LMS - laser navigation system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Connector	- Ethernet RJ45 - communication with PC, MODBUS TCP / IP - 18 pin connector, E-Stopx2, Reset, RS485 (Modbus RTU), CANopen, 2 x input, 24 VDC power supply output (2A) + 24 VDC power supply output (10 A)
<b>Drive and control</b>	
Drive	4 x servo motor (brushless), wheels with a diameter of 310 mm
Control and steering	- 1 x 7 "touch operator panel - 2 x emergency stop - 2 x emergency stop reset confirmation buttons - 1 x main power switch - 2 x function button - 1 x USB connector - 1 x Ethernet connector
<b>Sensors</b>	
Sensors	- 2 x vision system for tracking the line - 2 x 2D laser scanner with security function
Signaling	- 2 x light and sound signaling devices - 2 x speaker (voice / music messages) - 4 x direction indicator
<b>Environment</b>	
Operating temperature range	5 ÷ 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	1973 x 1254 x 420 mm
Total weight (with batteries)	~750 kg



All dimensions are approximate values and can change.



## Accessories

### Robotic arm adapter

It is a flexible solution ensuring maximum mobility and autonomous robot operation that optimizes production processes. The adapter is equipped with four additional wheels to ensure perfect stability, as well as a housing for a robot controller.

### Adapter with automatic rollers

Designed for transporting various types of containers, packages. The system consists of an automatic roller feeder attached to an AGV robot using a special adapter. The rollers are driven by motors powered by robot batteries and ensure a fast and smooth flow of goods.

This solution maximizes efficiency, optimizes material flow, and allows better use of available space.

### Charging station

### Cart trolley with batteries



# MOBOT® educational mobile robots

Four-wheel, four-wheel drive omnidirectional or ordinary



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**Functional and compact with wide development possibilities.**

**With them, you will gain and expand your knowledge about mobile robotics.**



## Education

Education, appropriate qualifications and experience are very important in our lives. They can be obtained through learning, which accompanies us from an early age.

We are convinced that continuing the journey along the path of education, undertaking education, and commitment to it is a guarantee for a better future. Let's boldly reach for the technical practical knowledge at the source - the production company, WOBit.

Studying or close cooperation between universities and enterprises - as part of retrofitting laboratories, apprenticeships, internships, workshops - can be not only a great experience but also a fantastic adventure. WOBit offers ready-made sets and training stands that will help students turn theory into practice and gain new skills.

We invite you to familiarize yourself with the educational offer of WOBit.





# MOBOT® eduRunner MW mobile robot

MOBOT® EduRunner is an educational platform designed for learning mobile robotics. The robot is programmed using MOBOT® RoutePlanner software. The software allows observing the status of the robot and the most important components of the system, configuring the drives and inputs/outputs of the main robot controller. It also enables manual control using the computer keyboard and adding characteristic points of the route in which some action is to be carried out.

The robot housing is equipped with mounting plates to which the user can attach some of their devices, e.g. additional sensors.



operating time up to 3 h  
on a single charge



payload up to 10 kg



Wi-Fi communication



dimensions  
740,2 x 540 x 220 mm

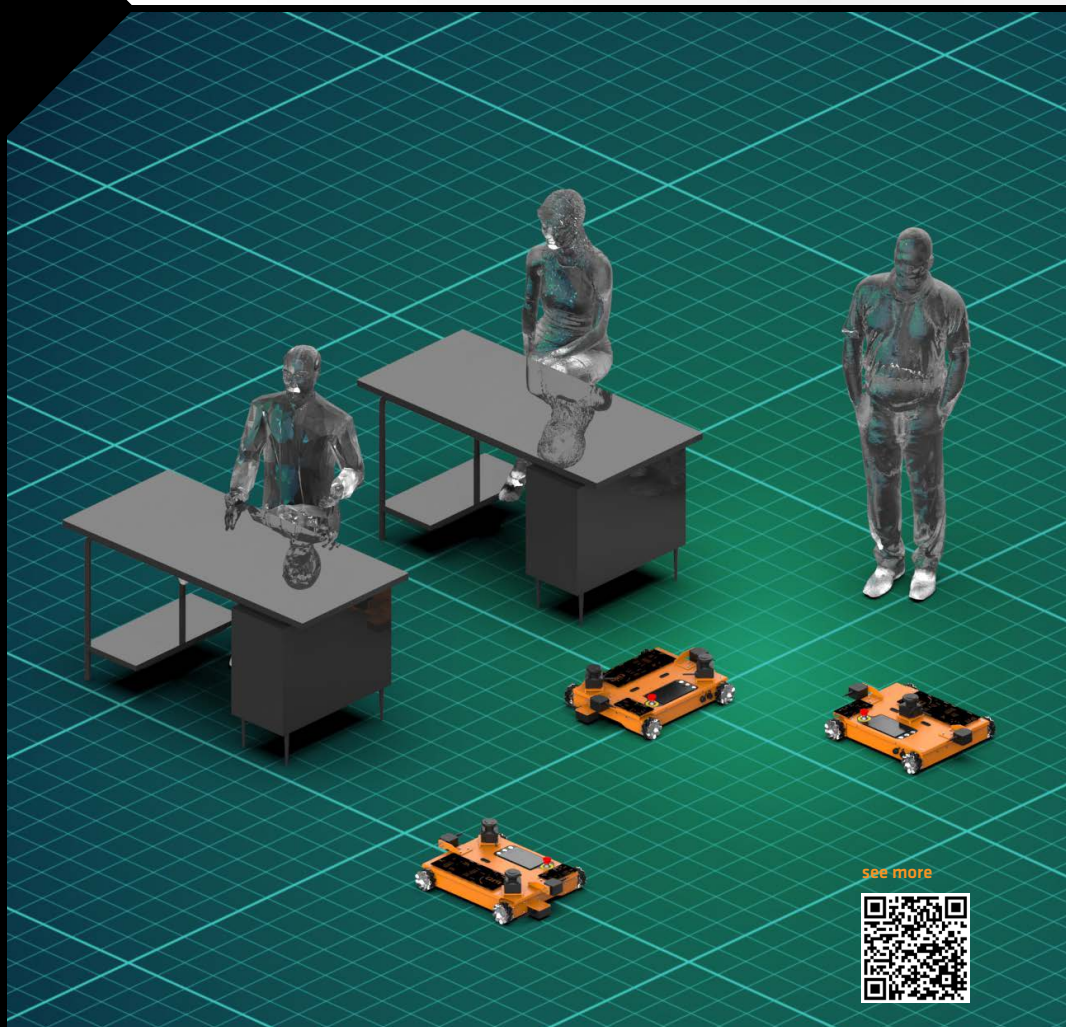


LMS navigation system



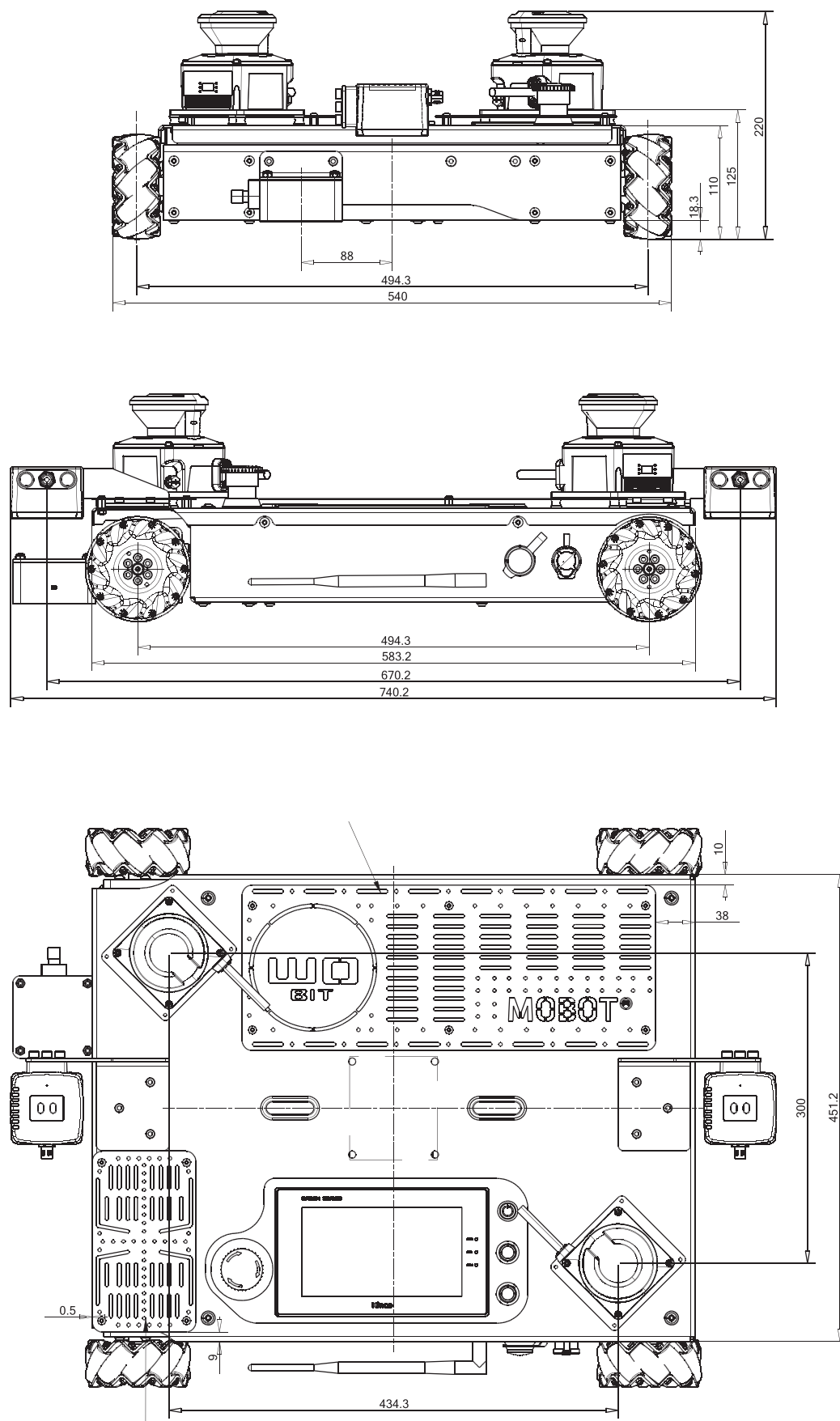
Mecanum wheels  
-movement in any direction

**Intended use:** education





Robot type	<b>MOBOT® eduRunner MW</b>
<b>Payload and transport method</b>	
Transport method	Fastening the load on the upper surface of the robot using dedicated mounting plates
Permissible total weight of the cart with load	10 kg
<b>Power supply</b>	
Robot power supply	Li-On 14 Ah battery
Manual battery charging connector	TAK (24 V DC, max. 4 A)
Charger	Charger 4 A/ 24 V with manual plug-in
Operating time at full load	~ 3 h
Operating time in standby mode	~ 14 h
Battery charging time	3,5 h
<b>Speed and performance</b>	
Maximal speed	0,4 km/h
Nominal power	48 W
Movement directions	Possibility of riding in all directions thanks to Mecanum wheels
Turning radius	Possibility of turning in place
Maximum surface slope	Robot designed for driving on a flat surface
<b>Navigation</b>	
Navigation	Natural and intelligent navigation using the LMS * * LMS - laser navigation system
<b>Communication</b>	
Communication	Wi-Fi 2,4 GHz
Connector	Ethernet RJ45 - PC communication, MODBUS TCP/IP
<b>Drive and control</b>	
Drive	4 x DC motor, wheels with a diameter of 101,6 mm
Control and steering	<ul style="list-style-type: none"> <li>- 1 x 7 "touch operator panel</li> <li>- 1 x emergency stop</li> <li>- 1 x emergency stop reset confirmation buttons</li> <li>- 1 x main power switch</li> <li>- 1 x START button</li> <li>- 1 x RJconnector</li> </ul>
<b>Sensors</b>	
Sensors	<ul style="list-style-type: none"> <li>- Optionally 2 x vision system for tracking the line</li> <li>- 1 2D laser scanner with safety function (optionally x2)</li> </ul>
Signaling	4x light signaling devices
<b>Environment</b>	
Operating temperature range	5 ÷ 45 °C
Humidity range	10...80 %
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	740,2 x 540 x 220 mm
Total weight (with batteries)	~30 kg



All dimensions are approximate values and can change.

# Accessories



## Vision system for line tracking

MOBOT® eduRunner can be retrofitted with an additional system for precise positioning using a vision system.

## 2D laser scanner

Possibility of equipment with additional 2D laser scanners with safety function for scanning the environment in a 360-degree radius.

## Dedicated charger





# MOBOT® EXPLORER-A1 mobile robot

MOBOT-EXPLORERv2 is a four-wheel-drive platform designed for expansion, educational and university purposes.

On its basis can be realized in a modular manner, the various functions of a mobile robot, from experiences with autonomous control, through the study of the behavior of a mobile robot equipped with infrared sensors, distance sensors, for inspection tasks, and others.

The mobile robot is attractive for both beginners in this field, enabling you to start from a higher ceiling, as well as companies experimenting with mobile robotics wishing to apply the mobile robot platform to a known purpose.



Wi-Fi Wi-Fi communication

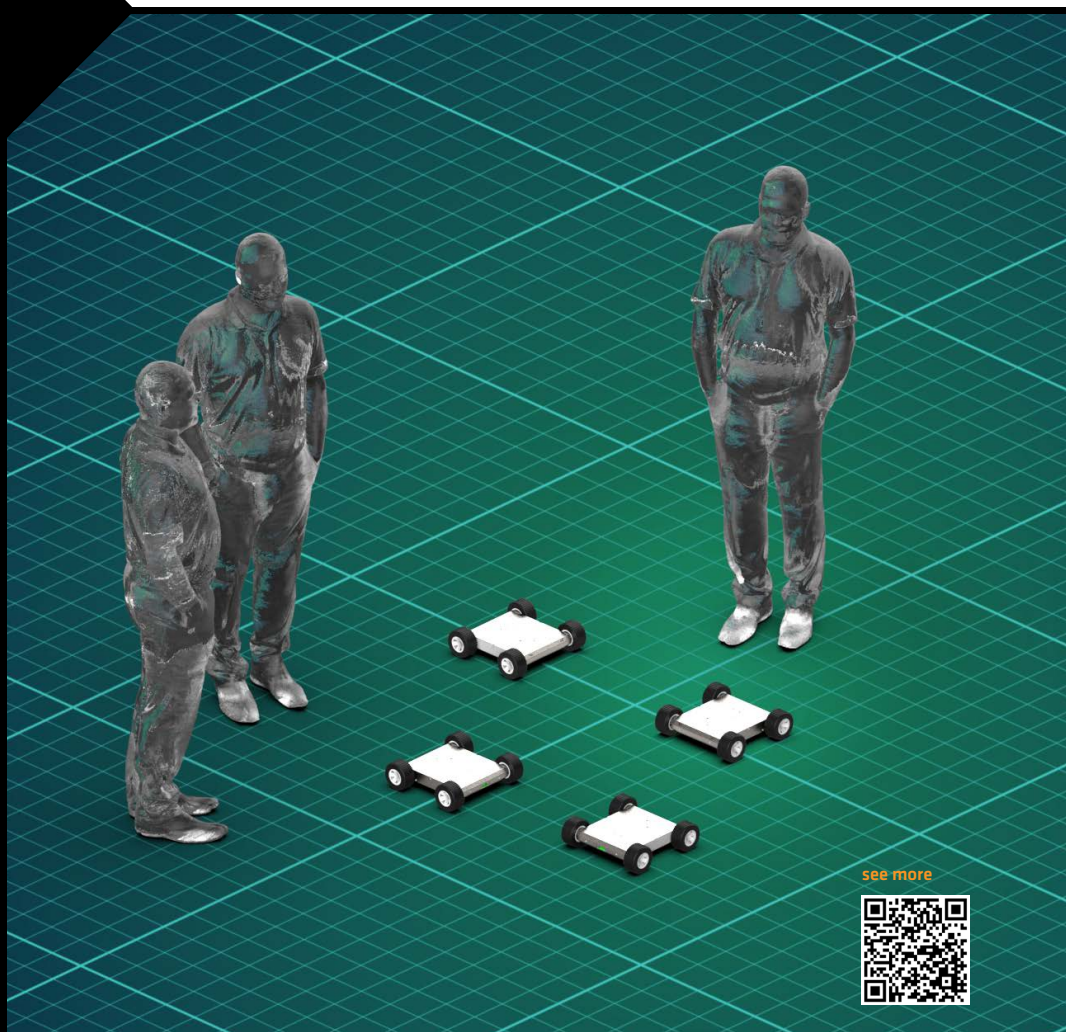


max speed  
0,38 m/s



dimensions  
115 x 361 x 350 mm

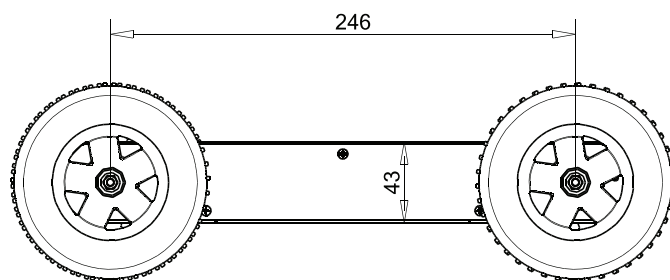
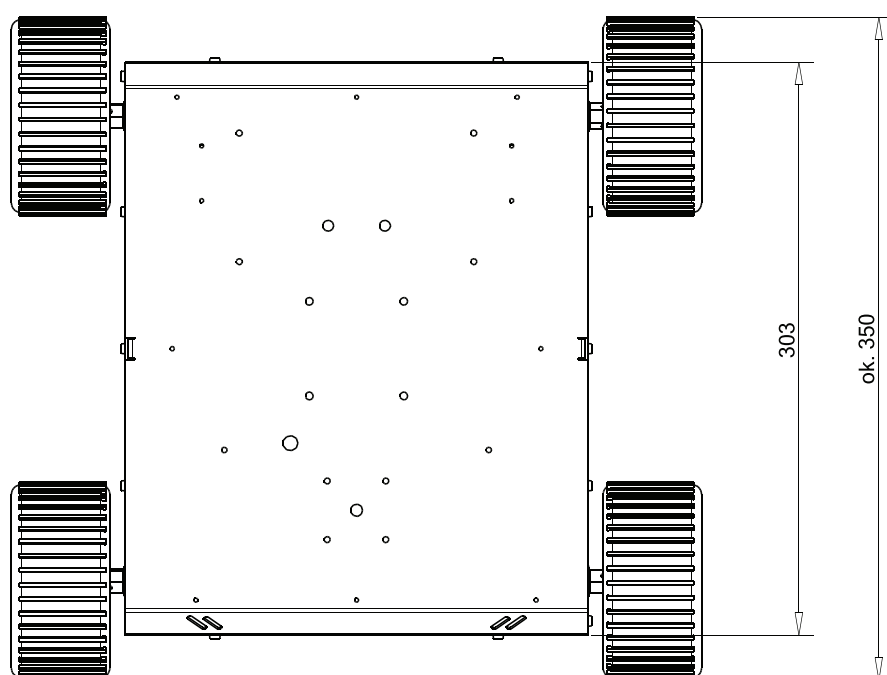
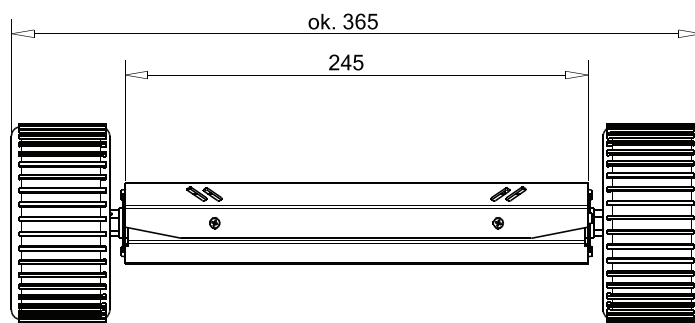
**Intended use:** education



see more



Robot type	<b>MOBOT® EXPLORER -A1</b>
<b>Payload and transport method</b>	
Transport method	Fastening the load on the upper surface of the robot using dedicated mounting plates
Permissible total weight of the cart with load	10 kg
<b>Power supply</b>	
Robot power supply	12 V (2 gel batteries 6 V, 3.2 Ah)
Manual battery charging connector	YES
Charger	Dedicated charger with supply 16 -25 VDC, min. 3A
Operating time at full load	~ 2 h
Operating time in standby mode	~ 40 h
Battery charging time	3 h
<b>Speed and performance</b>	
Maximal speed	0.38 m/s
Movement directions	Possibility of riding in all directions thanks to Mecanum wheels
Turning radius	Possibility of turning in place
Maximum surface slope	Robot designed for driving on a flat surface
<b>Communication</b>	
Communication	wireless communication (accessory)
<b>Drive and control</b>	
Drive	4x DC motor with planetary gear Buehler Motor GmbH (40 rpm 4 off-road wheels MB120 / 55/4 with a diameter of 120 mm
Control and steering	control system with ATmega128 microcontroller
<b>Sensors</b>	
Sensors	can be equipped with additional sensors
<b>Environment</b>	
Operating temperature range	5 ÷ 45 °C
Humidity range	10...80 %
Protection degree	IP30
<b>Dimensions and weight</b>	
Dimensions (Dł. x Sz. x Wy.)	115x 361x 350mm (with wheels)
Total weight (with batteries)	~6 kg



All dimensions are approximate values and can change.



## References

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[www.wobit.com.pl](http://www.wobit.com.pl)

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