

# 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

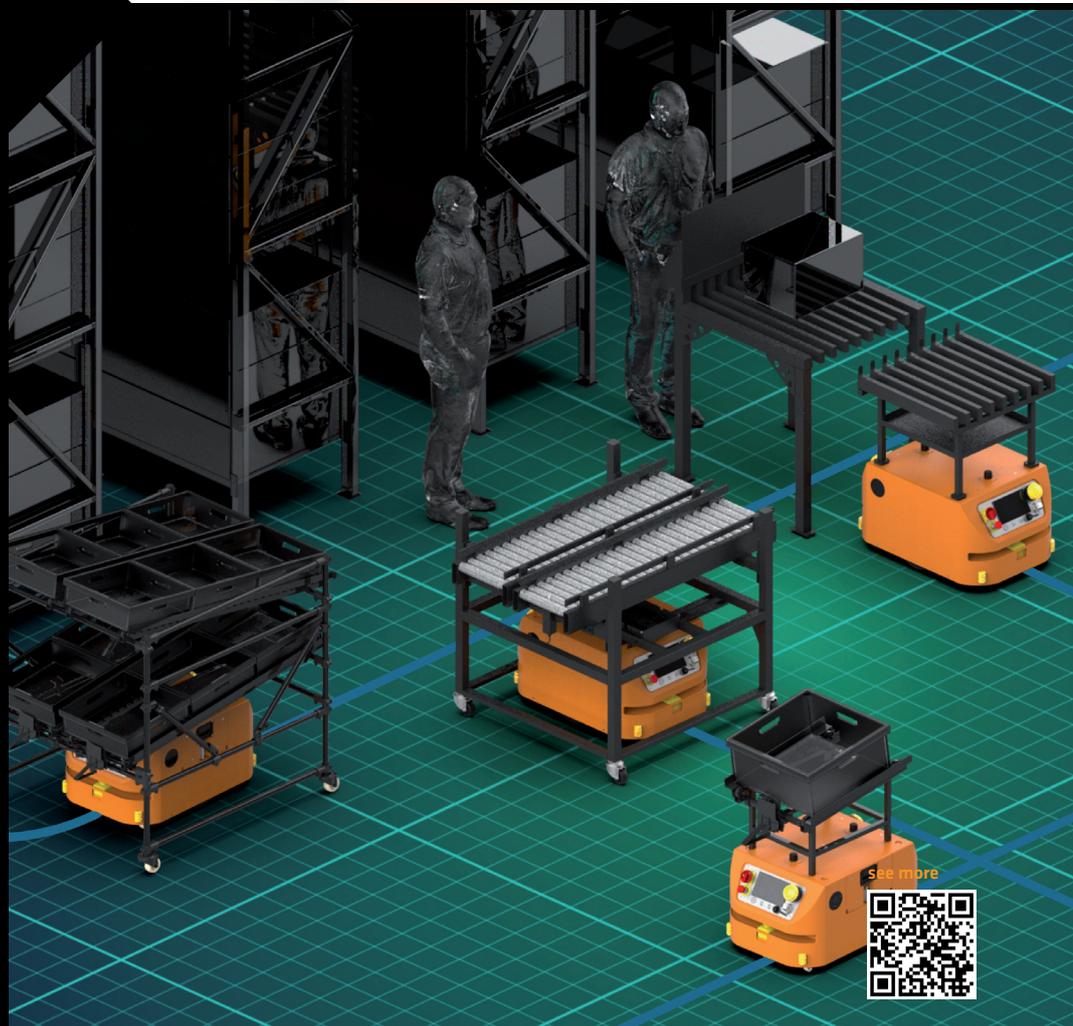
 dimensions 900 x 606 x 476 mm

 max speed 3 km/h

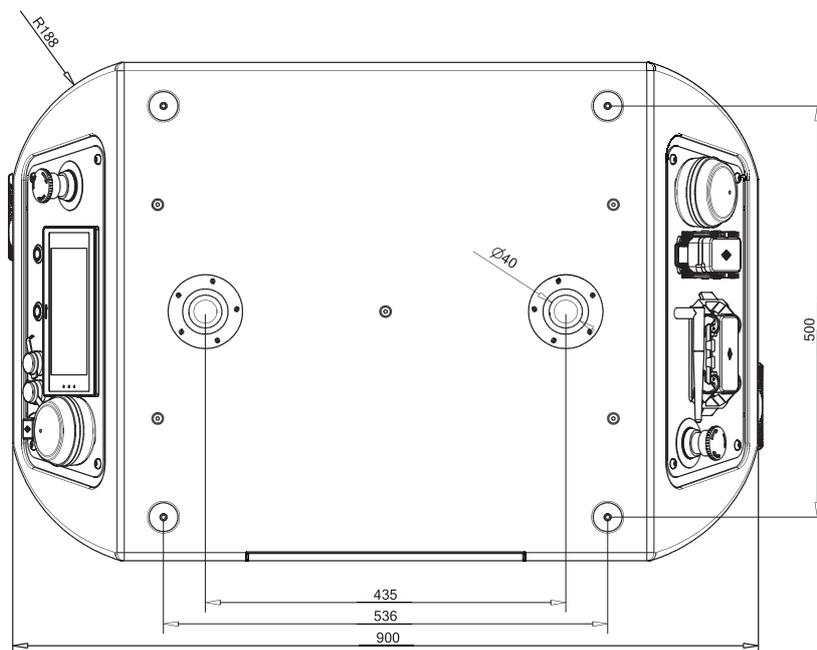
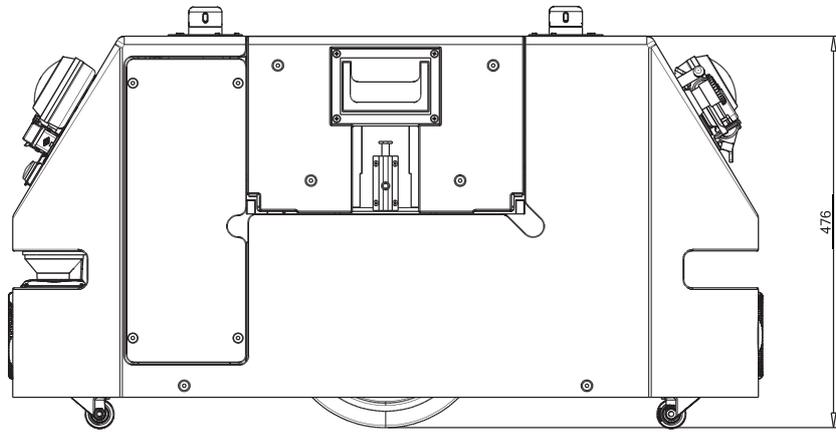
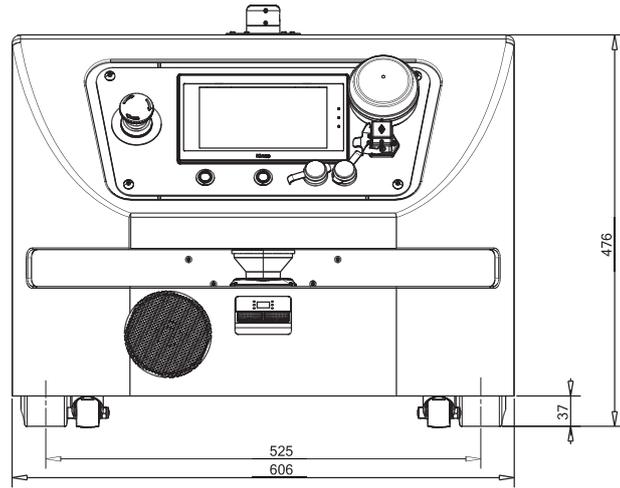
 line navigation using the vision system

 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



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