MOBOT® FlatRunner MW (004) mobile robot

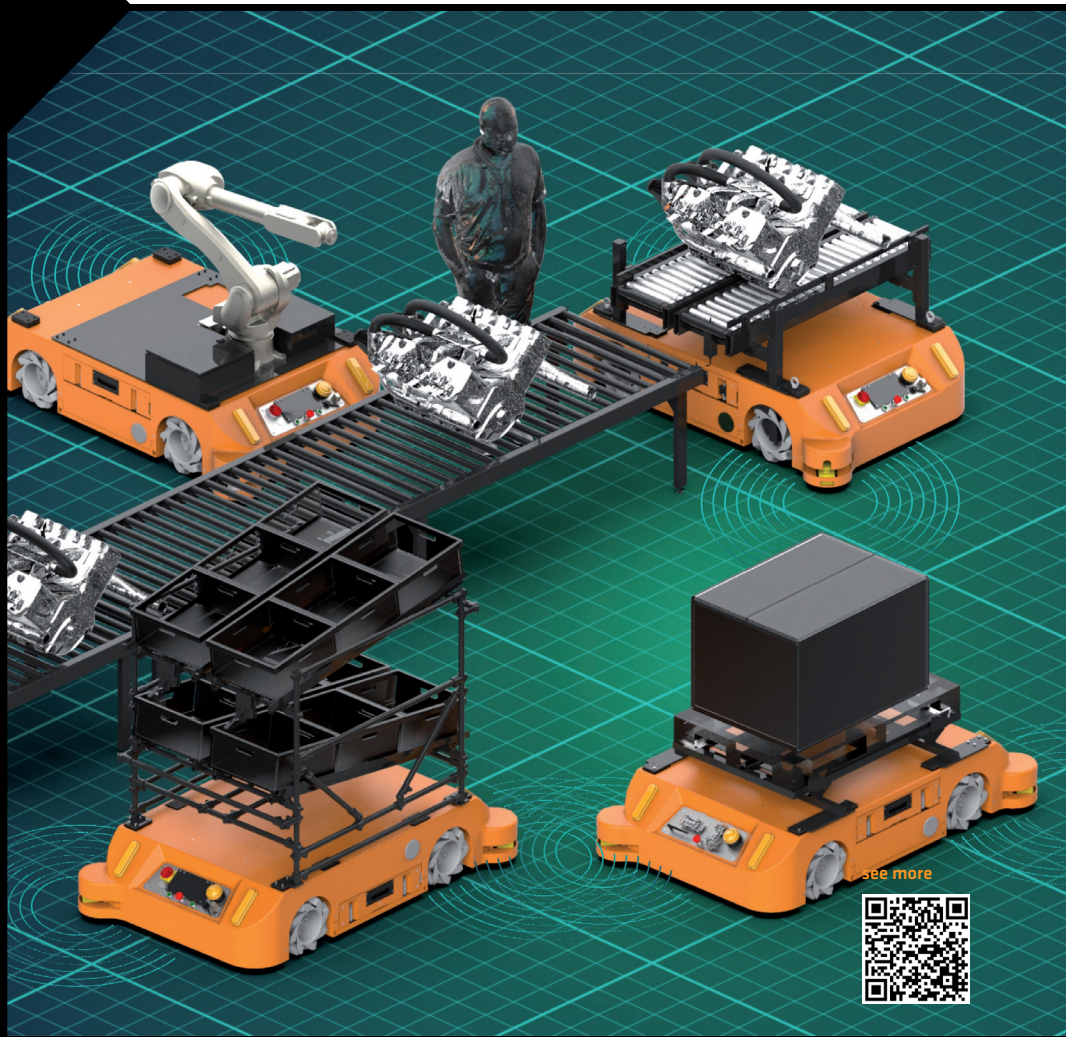
which you will automate internal transport. Ideal for transporting medium-sized loads, e.g. litter trays or parcels. It travels independently along the programmed route.

- ▸ 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

PRODUKT ROKU 2017 napędy i sterowanie

PRODUKT INNOWACYJNY 2018 LOGISTYKA TRANSPORT PRODUKCJA

PRODUKT ROKU DOBRY WZÓR 2019



8h operating time up to 8 h on a single charge

1800 kg payload up to 1800 kg

Wi-Fi Wi-Fi communication

dimensions 1973 x 1254 x 420 mm

max speed 3 km/h

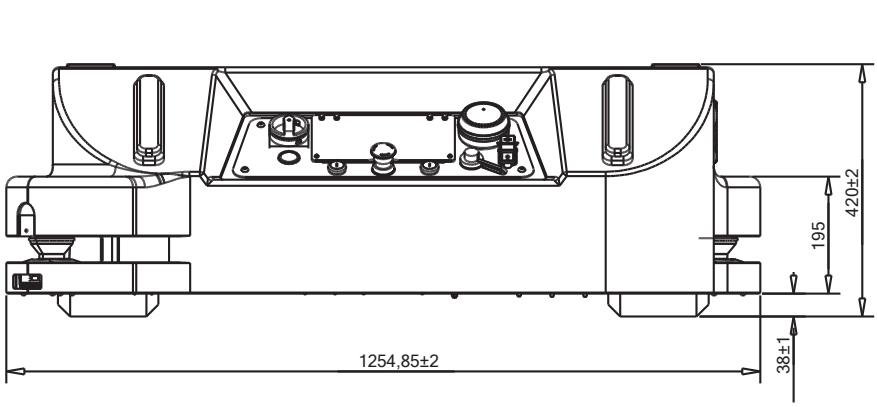
LMS system, line navigation using the vision system

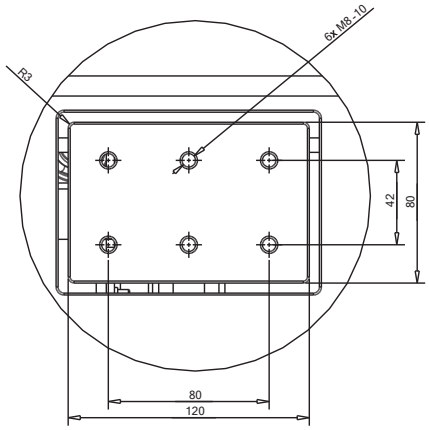
Mecanum wheels -movement in any direction

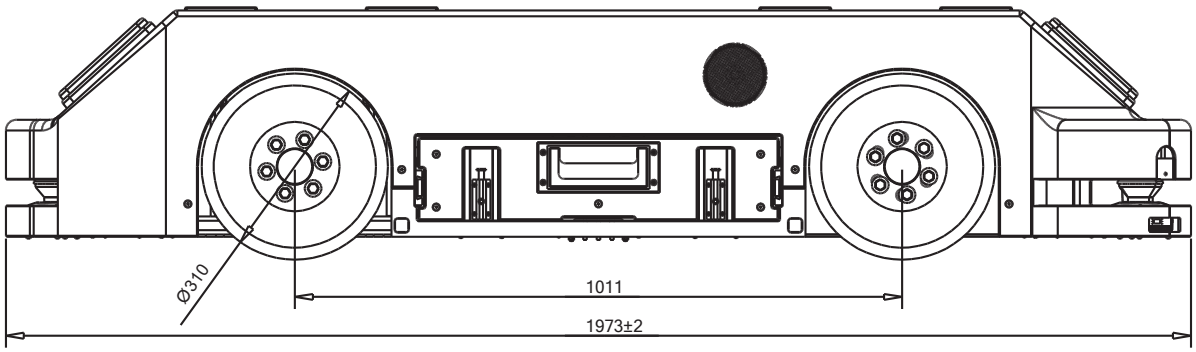
Intended use: transport of very heavy loads in industry, logistics

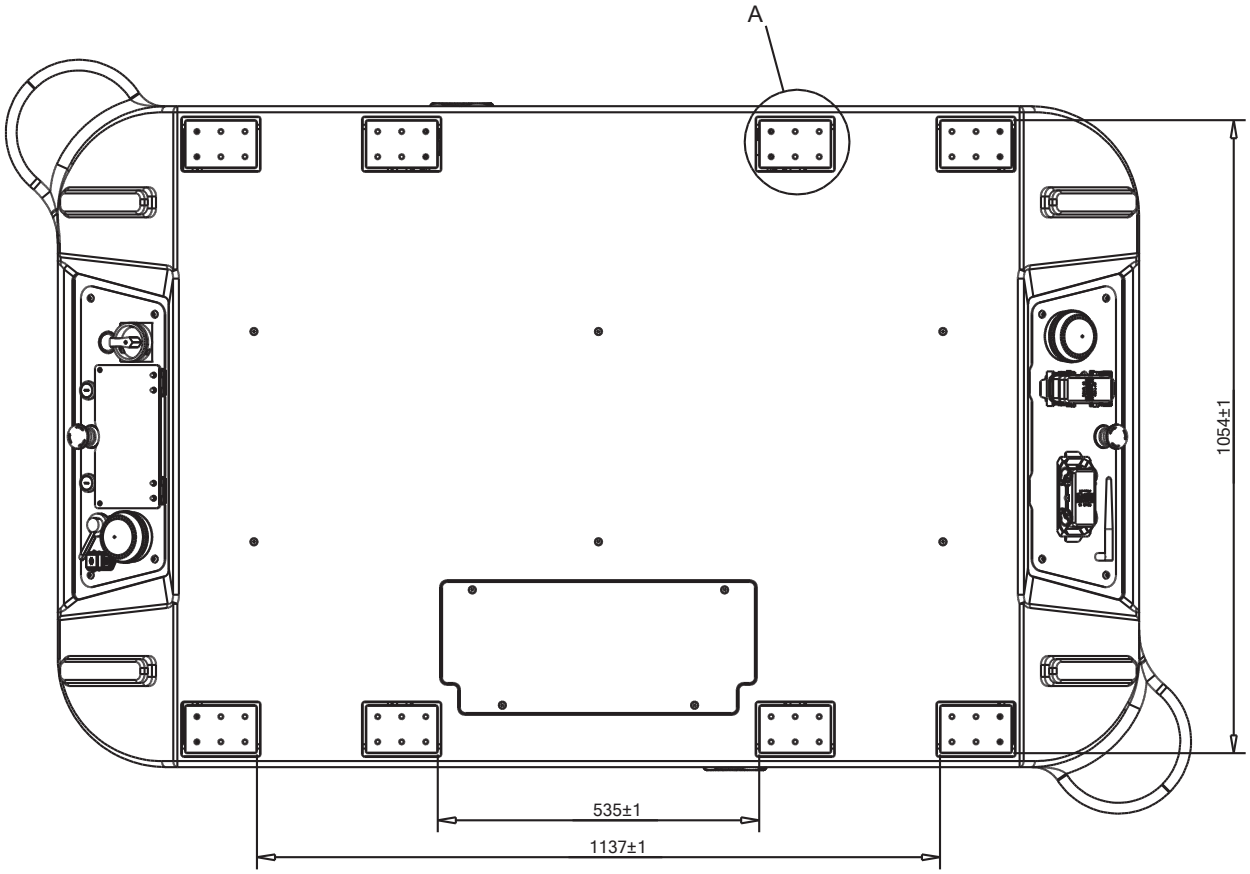
see more

Robot type	MOBOT®AGV FlatRunner MW (004)
Payload and transport method	
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
Power supply	
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
Speed performance	
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
Navigation	
Navigation	Natural and intelligent navigation using the LMS * Navigating the line using a vision system * LMS - laser navigation system
Communication	
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)
Drive and control	
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
Sensors	
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
Environment	
Operating temperature range	5 ÷ 45 °C
Humidity range	< 80 %, no condesation
Protection degree	IP30
The intensity of external light	< 1500 lx
Dimensions and weight	
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