

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



Polska Nagroda
Inteligentnego
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 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

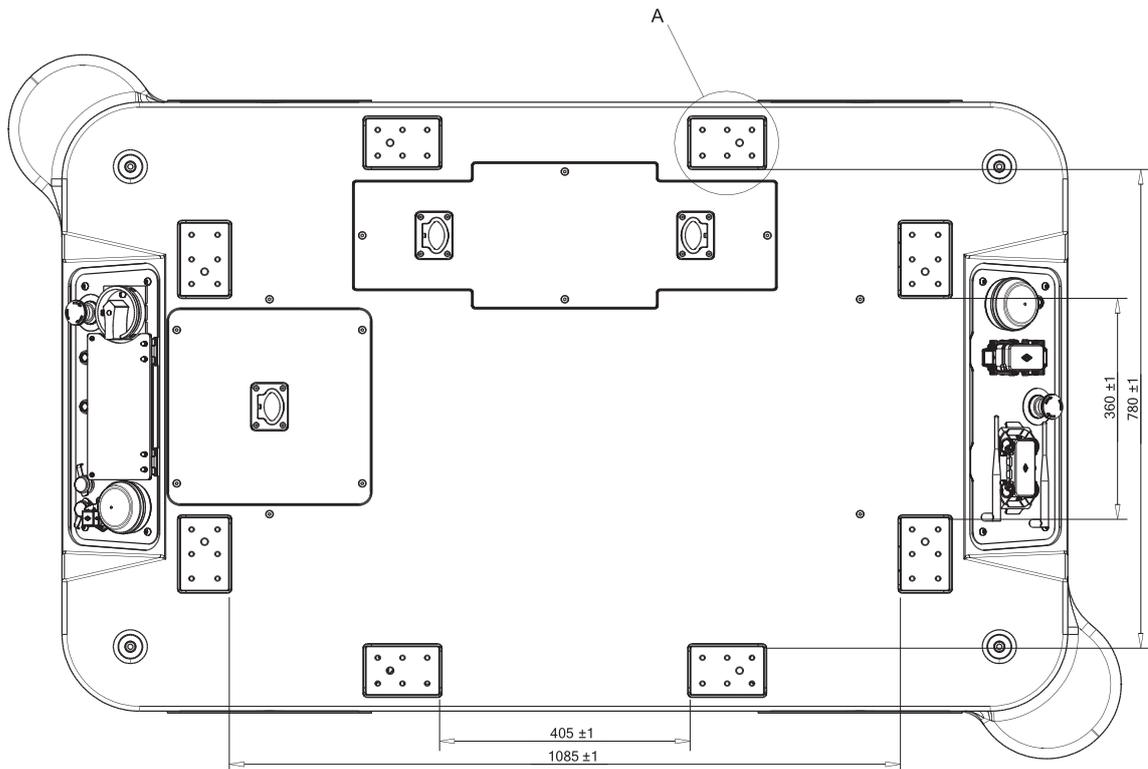
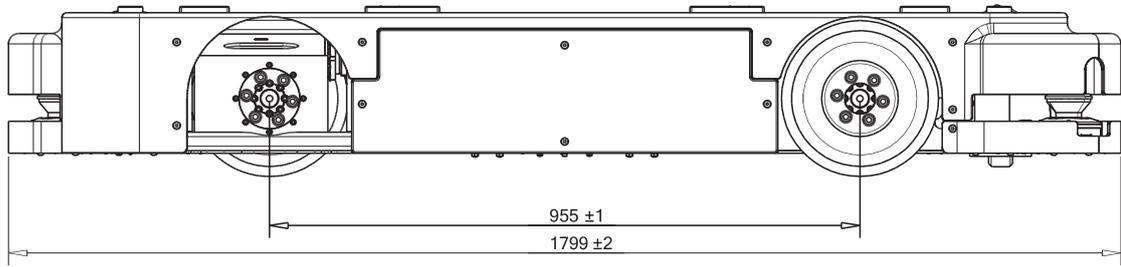
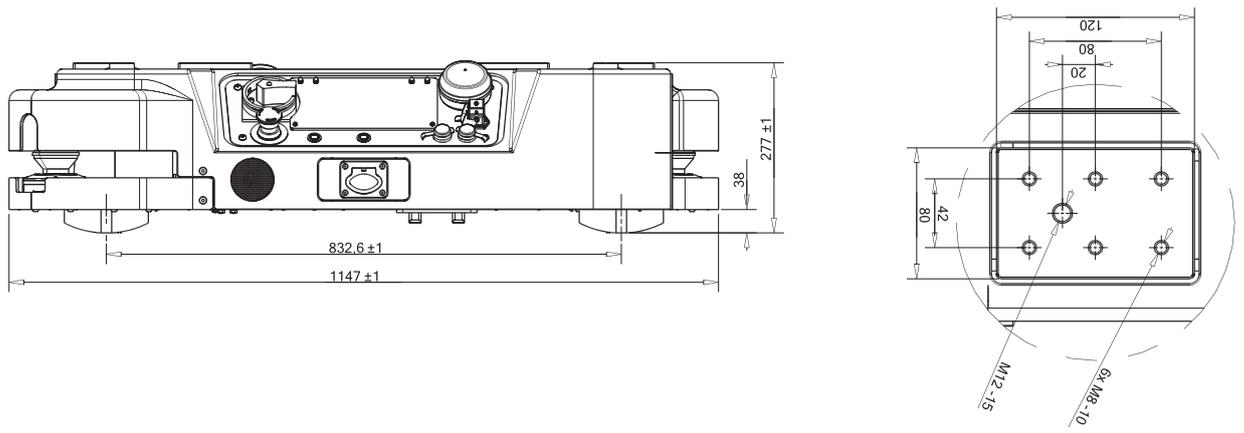
Intended use: transport of heavy
loads in industry, logistics



see more



Robot type	MOBOT®AGV FlatRunner MW Light (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	1000 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	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
Speed and performance	
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
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 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
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 condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
Dimensions and weight	
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