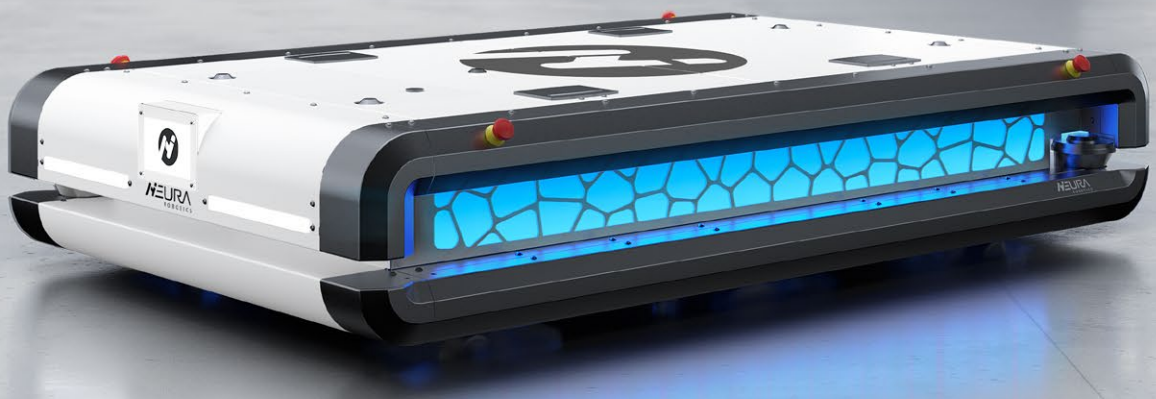
NEURA ROBOTICS

MAV®

Multi-Sensing Autonomous Vehicle

Move your goods
in a smart way.



Revolutionizing intralogistics MAV® 1500

MAV revolutionizes intralogistics by loading and moving any type of goods autonomously. Thanks to its integrated sensors, it can navigate and safely detect obstacles without requiring additional peripheral devices. Combining MAV with a collaborative or cognitive robot creates powerful mobile manipulator solutions.

Payload
1500 kg

Max. speed
1.5 m/s

Dimensions
L 1530 mm x W 910 mm x H 293 mm

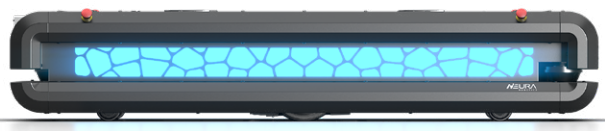
Up time
10 hours

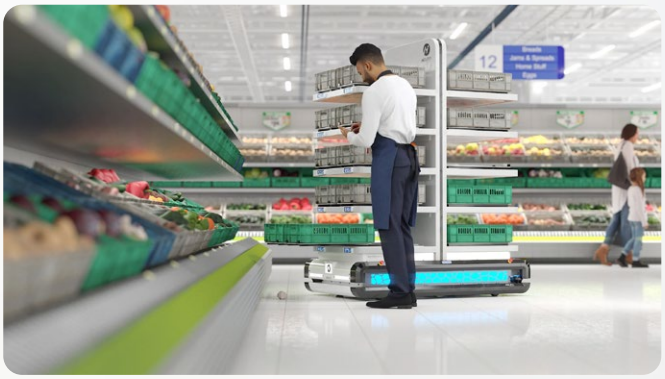
With a payload of up to 1500 kg, MAV can efficiently pick up, transport and deliver pallets with all kinds of heavy goods.

Using the latest technology of laser scanners with a 360° vision, it can safely navigate in any intralogistics environment.

Application areas

- Manufacturing
- Warehouse
- Automotive
- Pharmaceutical
- Aerospace
- Automotive
- Packaging
- Metals and machinery
- Service robots and hospital
- Food and beverage





NEURA ROBOTICS

MAV® 1500

heavy lifter

Payload

Up to 1500 kg

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Compact yet powerful

MAV® 500

MAV 500, the newest member of our MAV family, is your first choice whenever a strong but compact intelligent transport robot is needed.

Its compact dimensions allow it to navigate through tight spaces such as doorways, opening a wide range of applications – from laboratory automation to stock replenishment.

Payload
500 kg

Max. speed
1.5 m/s

Dimensions
L 1255 mm x W 678 mm x H 294 mm

Up time
5 hours

Advantages using MAV®

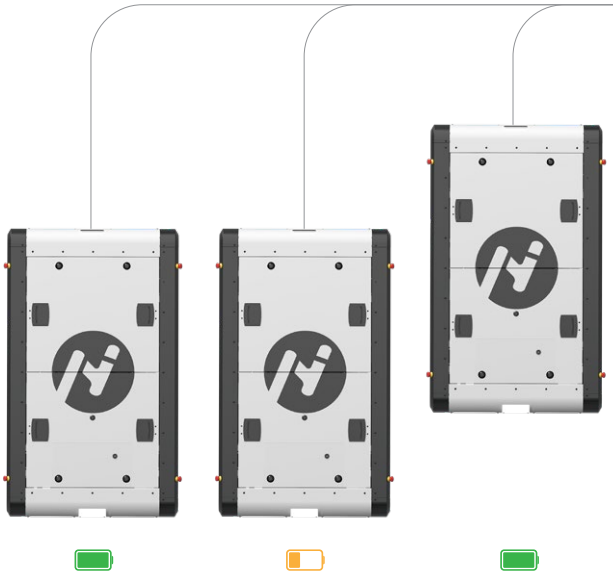
In order to satisfy the needs of our partners and customers, NEURA Robotics has developed specific solutions that meet the ever-increasing challenges. No matter what kind of loads manufacturers want to transport, MAV is the perfect solution to move heavy payloads with precision and efficiency.

- **Low maintenance and operating costs**
- **High duty cycles thanks to fast charging capability**
- **Maximum mobility and flexibility thanks to integrated sensors**
- **24/7 Operation**
- **Safe and precise transport of goods in environments shared with humans**
- **Emission-free, virtually noiseless movement**

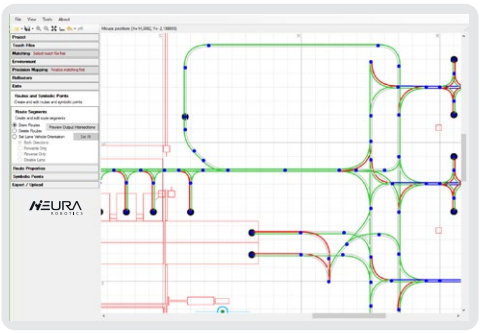
Seamless fleet management

Dedicated software to efficiently streamline and control a group of MAVs, for instance as part of a system in a smart factory.

- **Dynamic mapping**
- **Job status**
- **Robot location**
- **Route prioritization**
- **Battery level status**
- **Real-time monitoring**
- **Traffic control**
- **Real-time data collection for workflow optimization**



Fleet Management



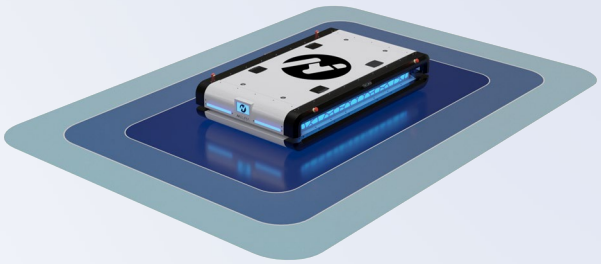
MAV®

Technical specifications

General specs	MAV 500	MAV 1500
Payload	500 kg	1500 kg
Dimensions	L1255 mm x W678 mm x H294 mm	L1530 mm x W910 mm x H293 mm
Weight	300 kg	400 kg
Velocity	1.5 m/s	1.5 m/s
Actuation	Differential drive	Differential drive
Communication interfaces	CAN, Ethernet	CAN, Ethernet
Outbound interfaces	1x Ethernet, 1x CAN	1x Ethernet, 1x CAN
IP classification	IP 44	IP 44
Positioning accuracy	±5 mm	±5 mm
360° safety laser scanner	PLd/Category 3 (ISO 13849-1)	PLd/Category 3 (ISO 13849-1)
Status indicators	Programmable status LEDs	Programmable status LEDs
Lifting unit	0-55 mm, 4 x 125 kg	0-55 mm, 4 x 374 kg

Sensors	
Detection	Touchless Safe Obstacle Detection
Safety	Laser scanners for 360° view

Software	
Operating system	NR CRUISE Control
Open architecture	3rd party apps, access to low level controllers and sensor data
Safety features	Safe Human Detection, Safe Speed Control



Warning zone 2 (reduced speed) **Warning zone 1 (stop)** **Safety zone (safe stop)**

Programming features	
Smart GUI	NR CRUISE Interface
Human-robot-interaction	Visual, audio, force feedback, motion tracking, PC-based GUI
Environment visualization	Dynamic mapping (SLAM), pallet identification, dynamic obstacle bypass and trajectory replanning
Fleet management	Formation driving, fleet monitoring tool

Life cycle	
Service interval	12 months
T1 components lifetime	Min. 36.000 h
T2 components lifetime	Min. 25.000 h

Battery specifications MAV 500	
Battery	51.8 VDC / 60 Ah
Supply voltage	230 V, 50-60 Hz
Loading current	60 A
Charging time	1.2 hours
Up time	5 hours
Charging	Manual, inductive

Battery specifications MAV 1500	
Battery	51.8 VDC / 120 Ah
Supply voltage	230 V, 50-60 Hz
Loading current	60 A
Charging time	2 hours
Up time	10 hours
Charging	Manual, inductive

Note:

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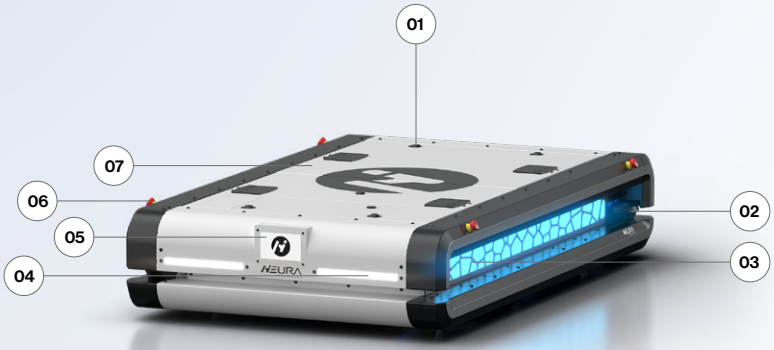
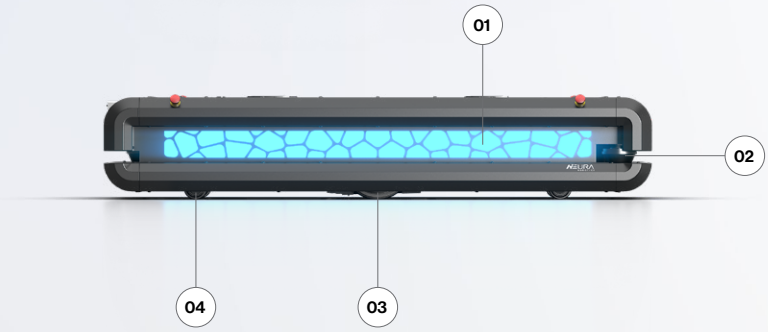
Overview

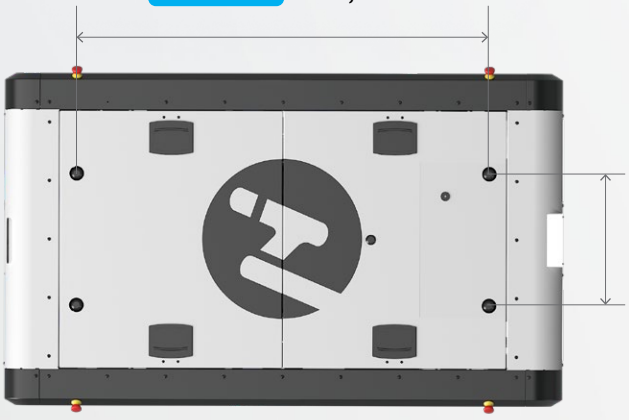


01 Lifting units
02 Laser scanner
03 LED status indicators
04 Direction indicator
05 HMI touch screen
06 Emergency stop button
07 Cover



01 LED status indicators
02 Laser scanner
03 Drive wheels
04 Universal wheels

MAV® 1500 **1130 mm**
MAV® 500 **555,4 mm**



MAV® 1500 **360 mm**
MAV® 500 **391 mm**

Mobile manipulator solutions for a maximum of flexibility

Combining MAV with a collaborative or cognitive robot enables complete process automation, significantly reducing the time required for a single operation. The combination of this system with a shelf allows smooth handling of all types of production parts.

Autonomous mobile transport system for any use case

Flexible rotating vertical axis

Combination with MAIRA or LARA

Pallet - sized shelf

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NEURA ROBOTICS
MAV®
Intralogistics made easy

NEURA ROBOTICS

MAV®

Multi-Sensing Autonomous Robot

Official partner:

MB-NAKLO ...Vir rešitev!

MB-NAKLO d.o.o.
Ulica Toma Zupana 16
4202 Naklo, Slovenija
Tel: +386 4 277 17 00
Tel: +386 31 308 565
info@mb-naklo.si
www.mb-naklo.si

NEURA Robotics GmbH
Gutenbergstraße 44 | 72555 Metzingen | Germany
neura-robotics.com