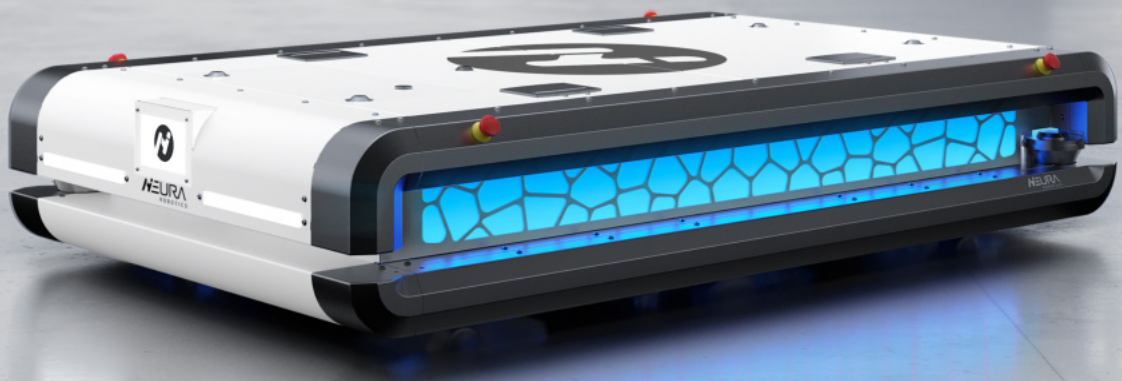


MAV[®]

Multi-Sensing
Autonomous Vehicle

World's smartest and most
performant AMR.



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

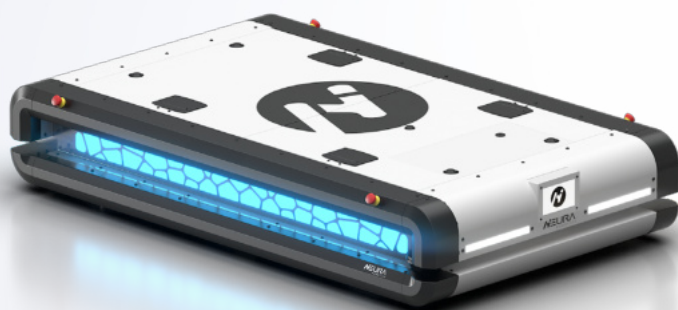


Up time

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



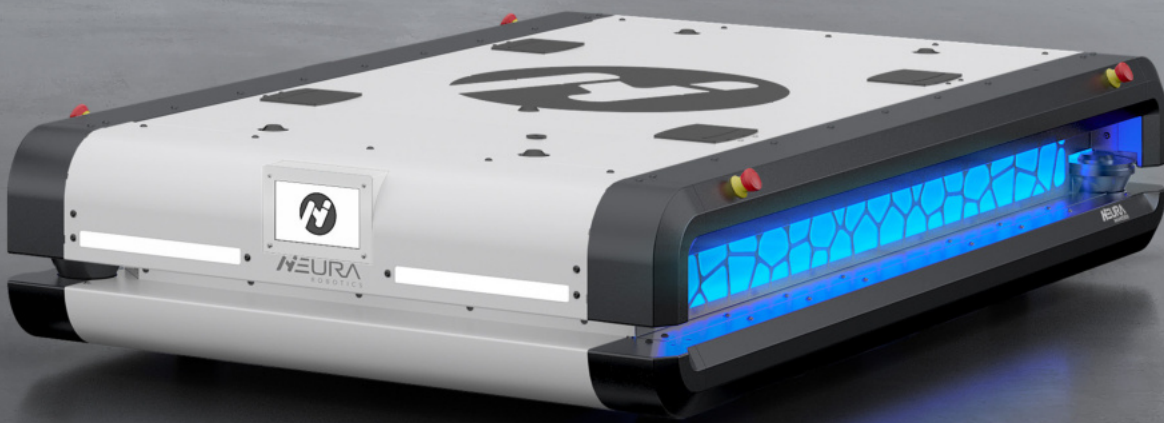


MAV[®] 1500

heavy
lifter

Payload

Up to 1500 kg



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

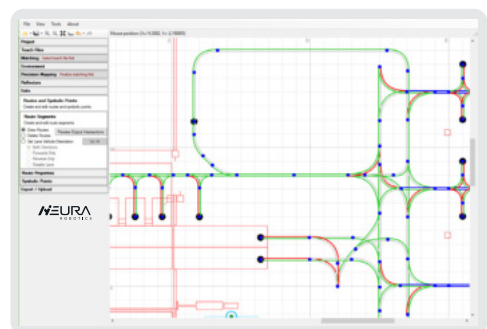
Real-time monitoring

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

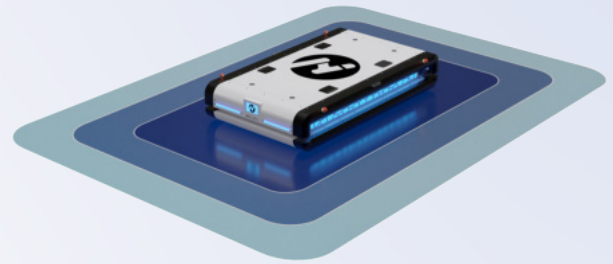
Operating system	NR CRUISE Control
Open architecture	3 rd party apps, access to low level controllers and sensor data
Safety features	Safe Human Detection, Safe Speed Control

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

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



 Warning zone 2 (reduced speed)	 Warning zone 1 (stop)	 Safety zone (safe stop)
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Life cycle

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

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

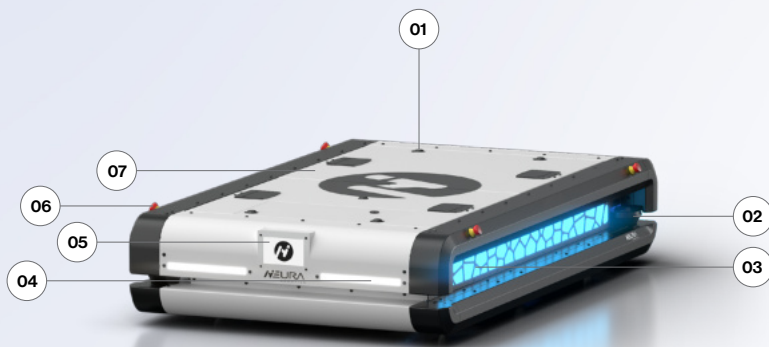
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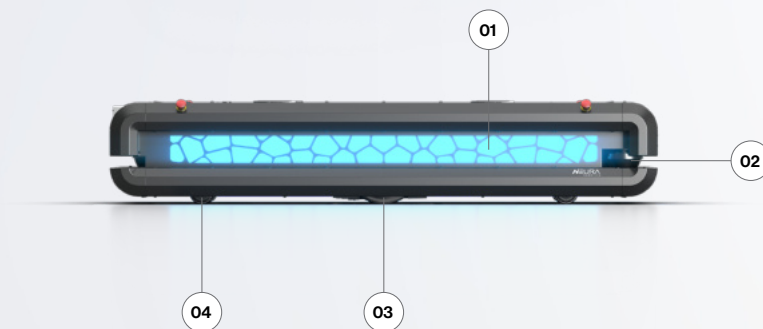
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MAV[®]

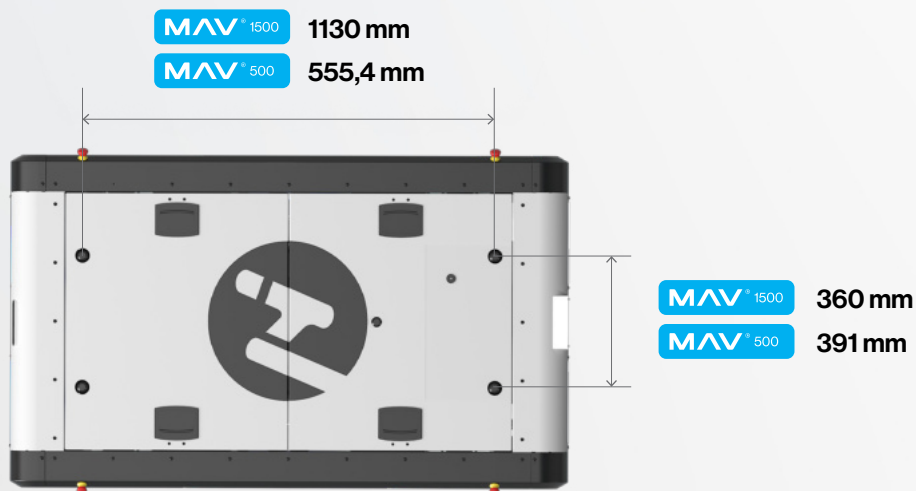
Overview



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

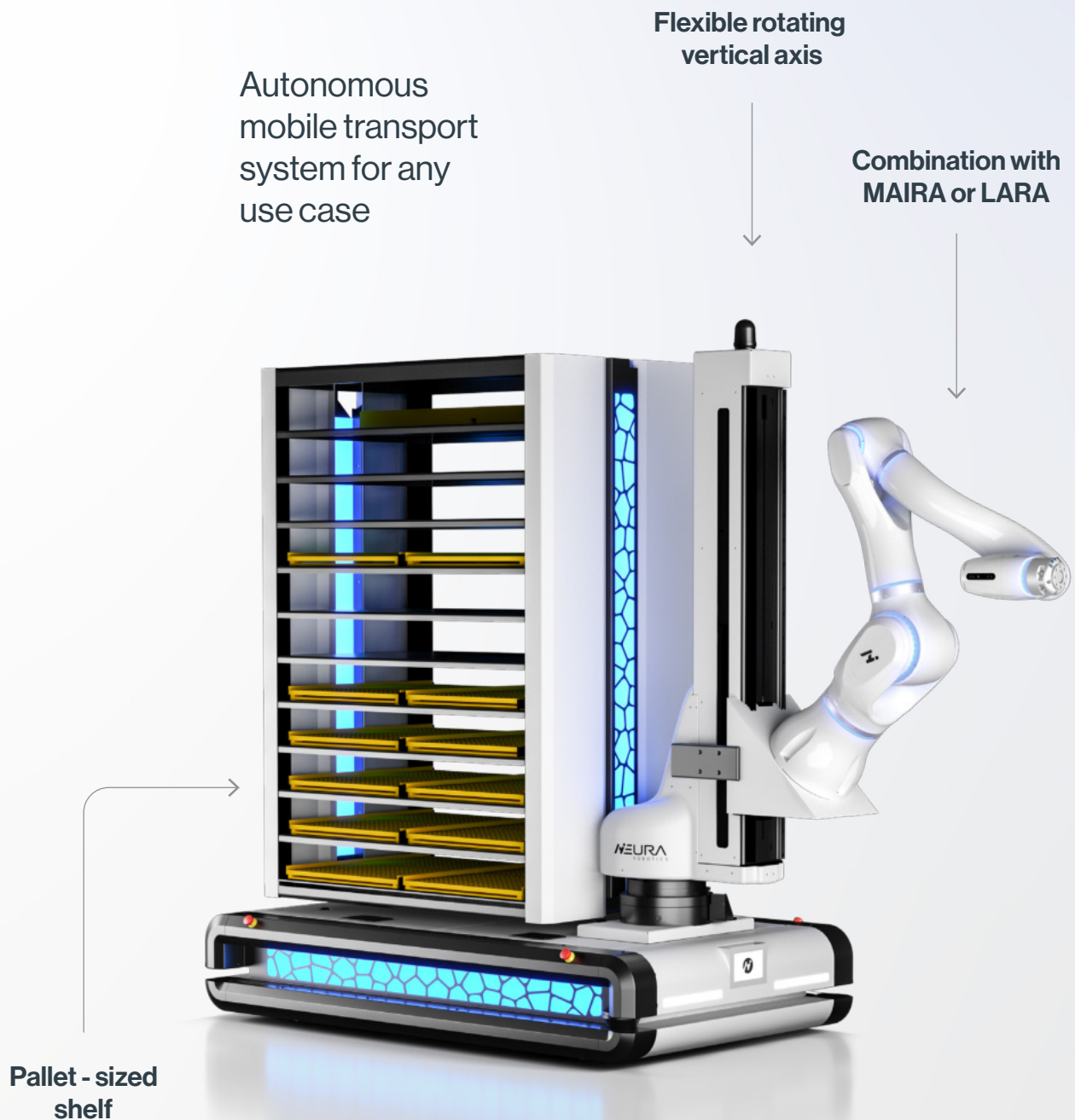


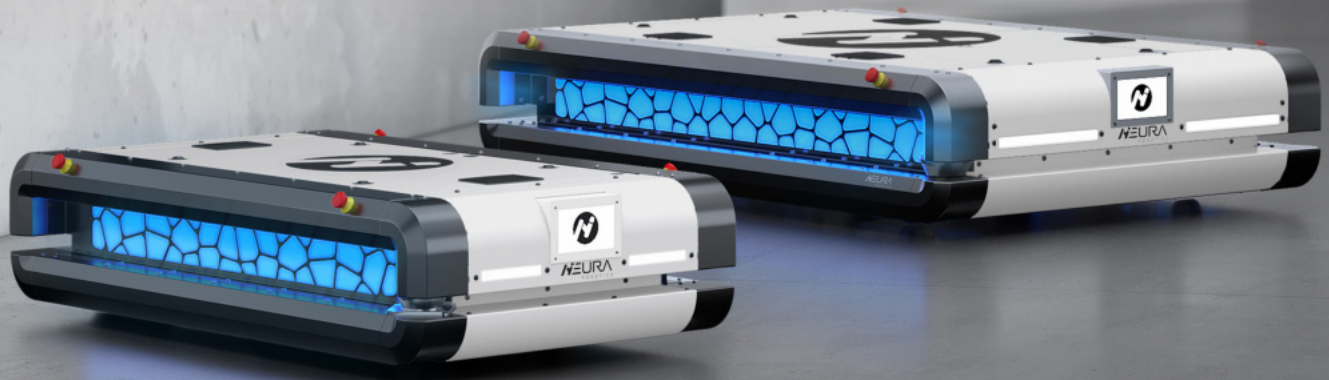
- 01** LED status indicators
- 02** Laser scanner
- 03** Drive wheels
- 04** Universal wheels



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.





MAV[®]

Intralogistics
made easy

MAV[®]

Multi-Sensing
Autonomous Robot



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