

# MAV<sup>®</sup> Pro Jr.

Multi-Sensing  
Autonomous Vehicle

## Data sheet



**MAV is an autonomous mobile robot which is designed to collaborate with YOU.**

MAV is a Multi-Sensing Autonomous Vehicle which is used for indoor intralogistic tasks. It can autonomously transport items and navigate freely in its environment. It is a robotic assistant, which will make the life of people working within production sites easier and therefore streamlines production. Every second of a standing conveyor belt leads to an overall production stop since the operations are cascaded. With multiple MAVs, one malfunctioning MAV can be directly replaced by another one which keeps the production running and due to their autonomous navigation more flexible.

### General Robot Specification

Payload	500 kg
Loading Current	60 A
Actuation	Differential Drive
Velocity	1.5 m/s
Communication Interface	CAN + Ethernet
Outbound Interface	1x Ethernet /1x CAN
IP classification	tbd
Weight	300 kg
Dimensions	L1255 mm x W678 mm x H294 mm
Positioning Accuracy	±5 mm
Safety Laser Scanner 360°	PLd/Category 3 (ISO 13849-1)
Status Indicators	Programmable Status LEDs
Lifting unit	4 x 0-50 mm á 200 kg, 4 x 2000 N

### Battery Specification

Battery	48 VDC/ 72 Ah
Supply Voltage	230 V, 50-60 Hz
Charging Time	1.2 h
Up Time	5 h
Inductive Charging	✓

### Life Cycle

Service Interval	12 Months
T1 Components Lifetime	min 36.000 h
T2 Components Lifetime	min 25.000 h

## Sensors

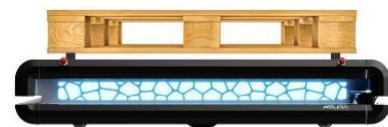
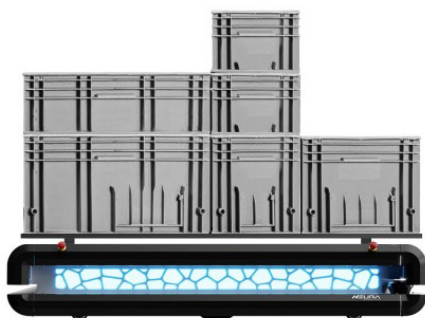
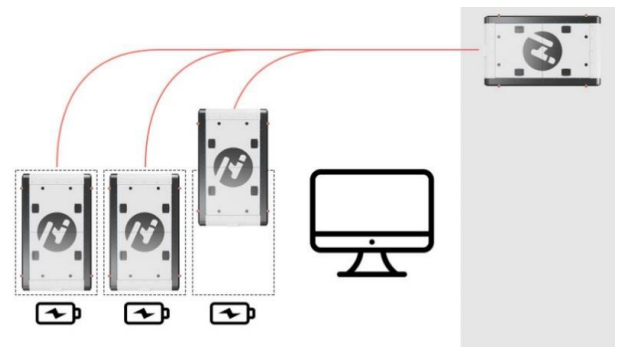
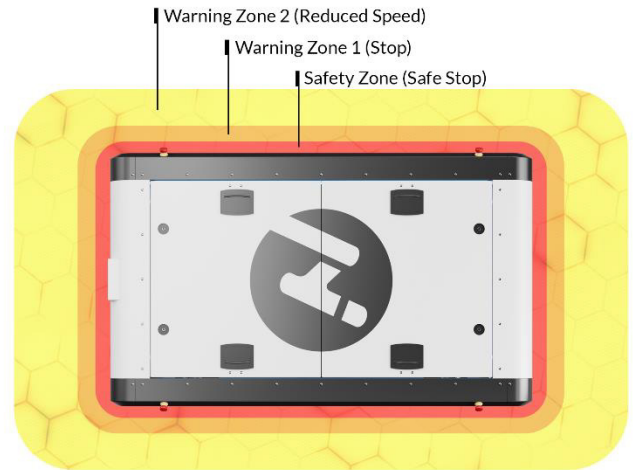
Vision	3D RGB-D Camera
Safety	Touchless Safe Human Detection   Safety Scanners
Sound	3D Voice Recognition Sensor

## Software

Operating System	NR CRUISE Control
Open Architecture	3rd Party Apps, Access to Low Level Controllers & Sensor Data
Safety Features	Safe Human Detection, Safe Speed Control

## Programming Features

Smart GUI	NR CRUISE Interface
Human-Robot-Interaction	Visual-, Audio- and 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



MAV® for logistics

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