NEURA ROBOTICS

MAV®

MULTI-SENSING AUTONOMOUS VEHICLE

Datasheet

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 MAV®s, 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	1,500 kg
Loading Current	95A
Actuation	Differential Drive
Velocity	1.5 m/s
Communication Interface	CAN
Outbound Interface	1x Ethernet /1x CAN
IP classification	IP54
Weight	400 kg
Dimensions	L1530xW910xH293
Positioning Accuracy	±5mm
Safety Laser Scanner 360°	PLd/Category 3 (ISO 13849-1)
Status Indicators	Programmable Status LEDs
Lifting unit	4 x 0-55mm á 400 kg, 4x4000N

Battery Specification

Battery	48VDC/ 120Ah
Supply Voltage	400V, 50-60Hz
Charging Time	1h
Up Time	10h
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
Fast Programming	Voice Control, Gesture Control
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

Warning Zone 2 (Reduced Speed)
Warning Zone 1 (Stop)
Safety Zone (Safe Stop)
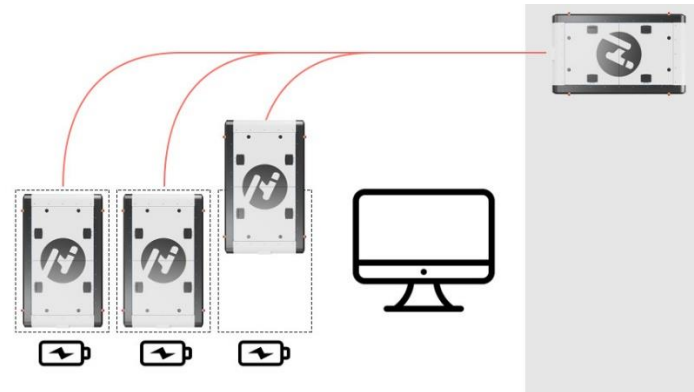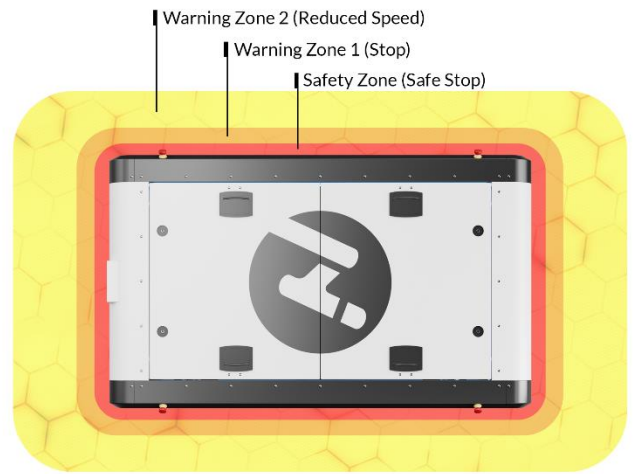
Plug & Play Integration of LARA® or MAiRA®

MAV® + MAiRA®
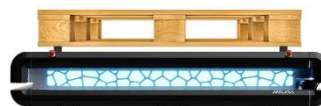
MAV® for logistics

MAV® + LARA®

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