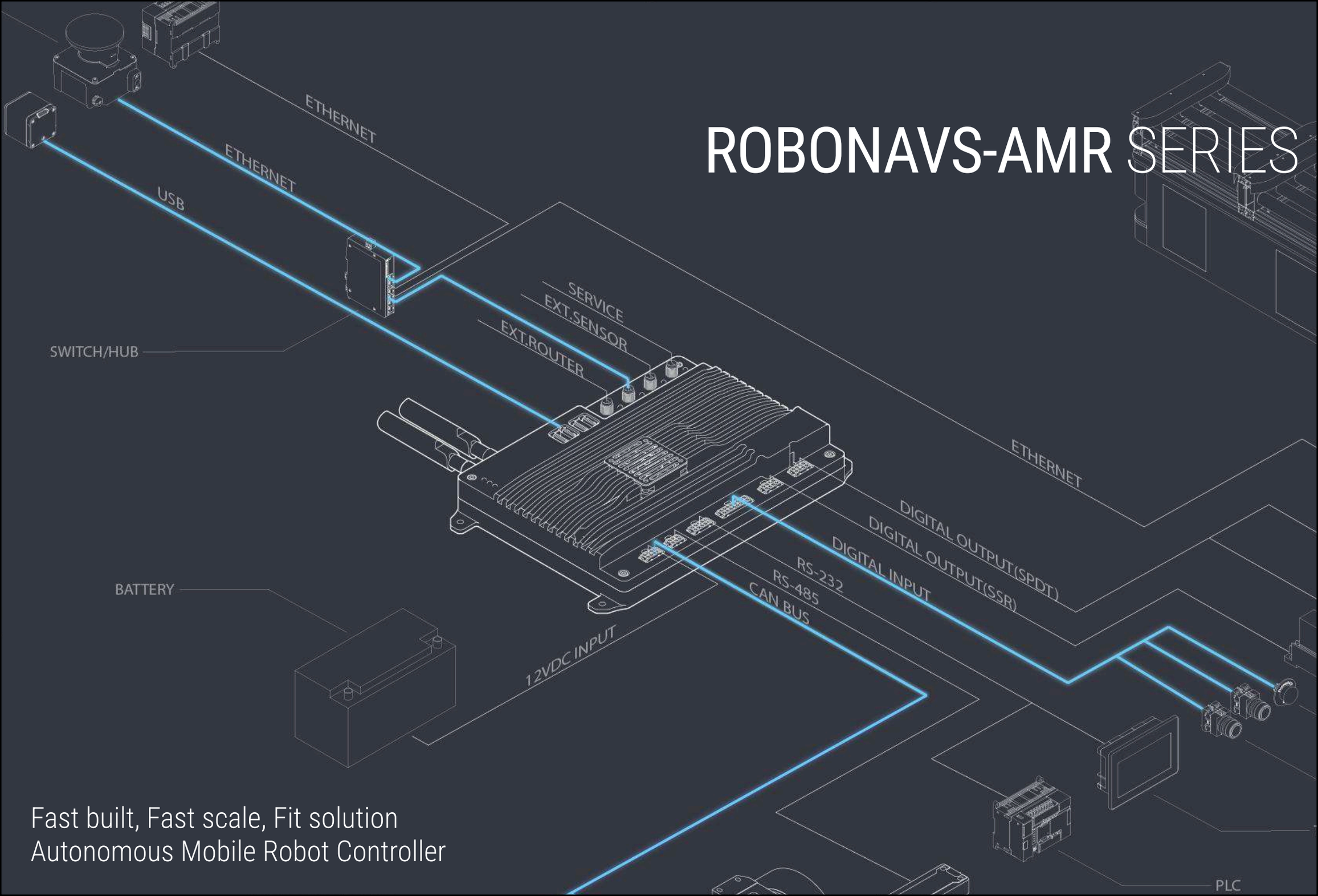

ROBONAVS-AMR SERIES
ETHERNET
ETHERNET
USB
SWITCH/HUB
SERVICE
EXT.SENSOR
EXT.ROUTER
ETHERNET
DIGITAL OUTPUT(SPDT)
DIGITAL OUTPUT(SSR)
DIGITAL INPUT
RS-232
RS-485
CAN BUS
BATTERY
12VDC INPUT
PLC
Fast built, Fast scale, Fit solution
Autonomous Mobile Robot Controller

The Robot Controller offers a unified platform easily configurable for AGV, AMR, and custom systems, ensuring consistency and simplifying robotic management. Its quick setup reduces development time, allowing developers to focus more on refining functionality and accelerating time-to-market.
The plug-and-run design supports seamless integration of upgrades and additional components, enabling scalability without complex reconfiguration. A user-friendly interface simplifies setup, making it accessible to users with limited programming experience.

Easy Integration With Autonomous Mobile Robot

Reduce Cost

Build in WIFI

Commercial Parts Supported

Build I/O

Zero Coding

ROBONAVS-AMR Introduction

ROBONAVS-AMR ECO, PRO

ROBONAVS-AMR ECO x 1
Interface Controller x 1
Power Cable (Wire to Molex, 1 m) x 1
Ethernet Cable (M8 to RJ45, 1 m) x 4
Digital Input Cable (Ferrule to Molex, 1 m) x 1
Digital Output Cable SSR(Ferrule to Molex, 1 m) x 1
Digital Output Cable SPDT(Ferrule to Molex, 1 m) x 1

Special Accessories

RS-232 to Molex Cable [1]

The RS-232 interface is commonly used for short-distance communication. It can connect the ROBONAVS-AMR robot controller to devices such as touch screens or Human-Machine Interfaces (HMIs) for Modbus RTU communication.

RS-485 to Molex Cable [1]

The RS-485 interface is used for long-distance communication and multi-device networks, connecting the ROBONAVS-AMR controller to external devices like HMIs, sensors, or controllers in a multi-drop setup using Modbus RTU.

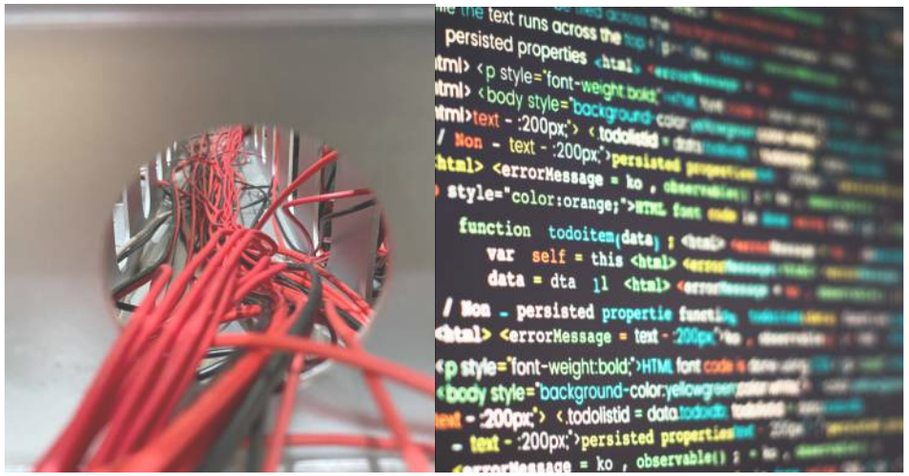
USB Camera [2]

The USB camera connects to the ROBONAVS-AMR via USB 2.0/3.0 ports, enabling high-speed data transfer for precise docking and recognition applications.

1. Sold separately with the ROBONAVS-AMR Pro package.
2. Sold separately with the ROBONAVS-AMR ECO and ROBONAVS-AMR Pro packages.

Easy Integration With Autonomous Mobile Robot

Easy Integration with Autonomous Mobile Robot" means seamless compatibility with AMRs, enabling efficient navigation and control through simple connections to sensors, cameras, and other devices.



Reduce Cost

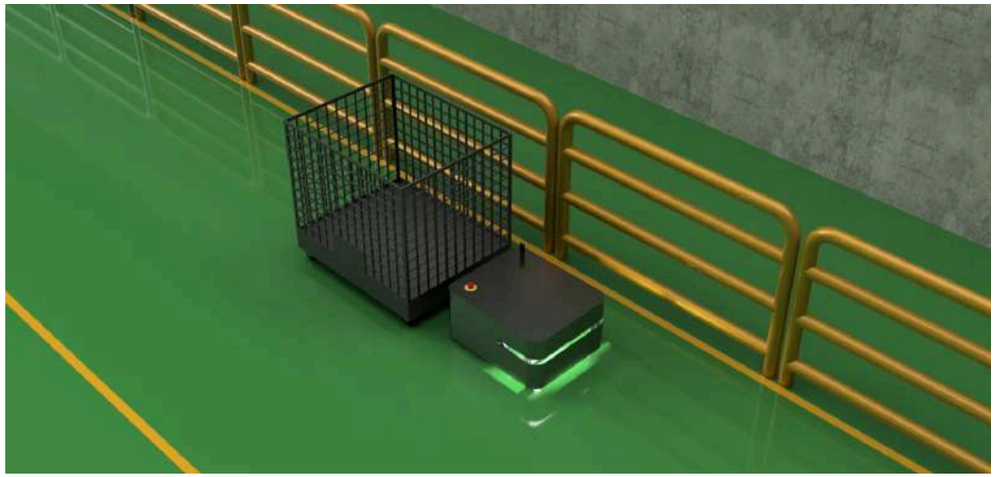
Enables cost-effective robot development with its use of off-the-shelf components and modular design, reducing both hardware and software costs while maintaining high performance and flexibility.

Commercial Parts Supported

Commercial Parts Supported" means the ROBONAVS-AMR is compatible with common industrial components like **PLCs, touch screens**, **motor controllers**, sensors, and **LiDAR** for navigation and safety, ensuring easy integration.

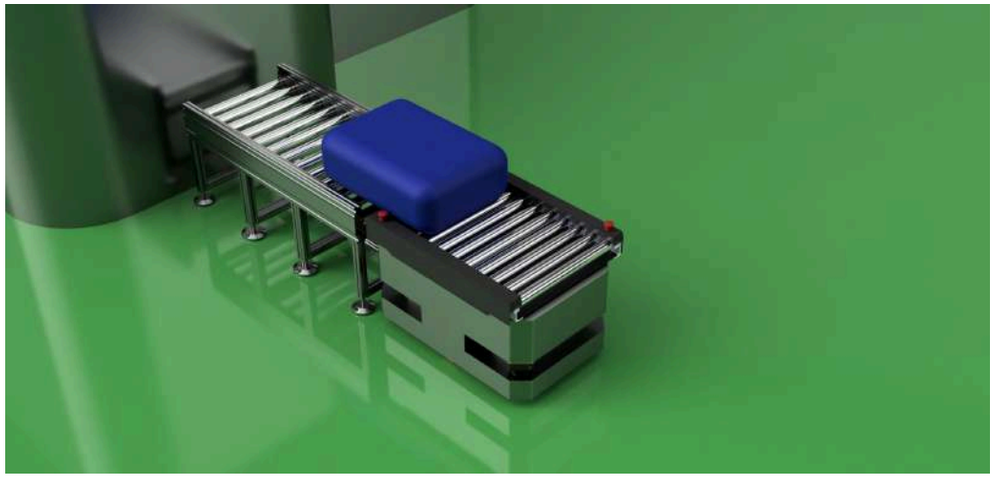
Zero Coding

ROBONAVS-AMR can be fully configured, with maps created, tasks set, and robot routing designed using only the included web interface. No programming is required—**just plug it in and let the robot run**.



Tugger

ROBONAVS-AMR ECO is an advanced solution for autonomous material transport in industrial environments. It features motor-driven **2-wheel drive**, **only one LiDAR** for safety and navigation.

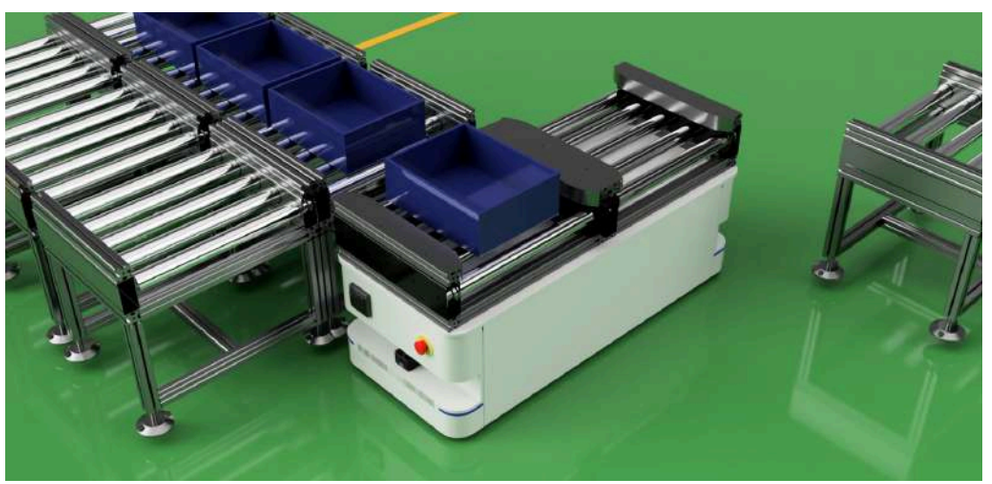


Payload with Conveyor

The ROBONAVS-AMR ECO with **CAN bus communication with conveyor** and conveyor integration offers a smart, scalable, and efficient solution for material handling in complex industrial environments.

Stacker

The ROBONAVS-AMR ECO can be configured as a **stacker-type 3-wheel** robot for material transport and stacking. It can **interface with a PLC, touchscreen, and motor controllers**, providing a flexible and efficient solution for material handling and control in industrial environments."



Omni

The **ROBONAVS-AMR PRO** is an omni-type robot with **4-wheel control**, ideal for **high-precision docking** in narrow, limited workspaces. Perfect for electronics manufacturing, it ensures exceptional maneuverability and accuracy for efficient material handling and assembly.

Hardware & Firmware Configuration

	ROBONAVS-AMR ECO	**ROBONAVS-AMR** PRO
Hardware		
ROBONAVS-AMR	●	●
Interface Controller	●	●
Power Cable	●	●
Digital Input, Digital Output Cable	●	●
Ethernet Cable	●	●
Firmware Configuration		
LiDAR (HOKUYO)	Supports 1 LiDAR	Supports 2 LiDAR
CAN Bus Communication	Motor Controller	Motor Controller, IMU, Sensors
Robot Driving System	2 wheels, 3 wheels	2 wheels, 3 wheels, 4 wheels
PLC Interface	Not supported	RS232, RS485, ETHERNET
Touchscreen Interface	Not supported	RS232, RS485, ETHERNET
ROS2	Supported	Supported

Interface Controller Configuration

	ROBONAVS-AMR ECO	**ROBONAVS-AMR** PRO
Software Configuration		
Map Manager	●	●
Route Manager	●	●
Task Manager	●	●
Task Manager	●	●
Battery Level	●	●
Odometer	●	●
Robot Runtime	●	●
Robot Location		●
Robot Status		●
Battery Health		●
Speed		●

Specifications

Power Supply		**Ethernet**	
Input	12-15 VDC	Speed	10/100 Mbps
Current	1.0 A	Channel	4
RS485		**WIFI**	
Mode	Half-Deplex	Frequency	Dual Band 2.4 GHz and 5 GHz
Baud Rate	115200 bps	Security	WPA/WPA2 Personal
Protocol	Modbus RTU	**Digital Input**	
Channel	1	Input	12-24 VDC
RS232		Channel	8
Baud Rate	115200 bps	**Digital Output(1-4)**	
Protocol	Modbus RTU	Current	500 mA
Channel	2	Type	Solid State Relay
CAN		Channel	4
Bit Rate	500 kbps, 1Mbps	**Digital Input(5-8)**	
Protocal	CANOpen	Current	5 A
Node-ID	1-127	Type	Relay SPDT
Channel	1	Channel	4