



SMART
SOLUTIONS
FOR YOUR
SUCCESS

Autonomous Mobile Robots

AMR-Solutions

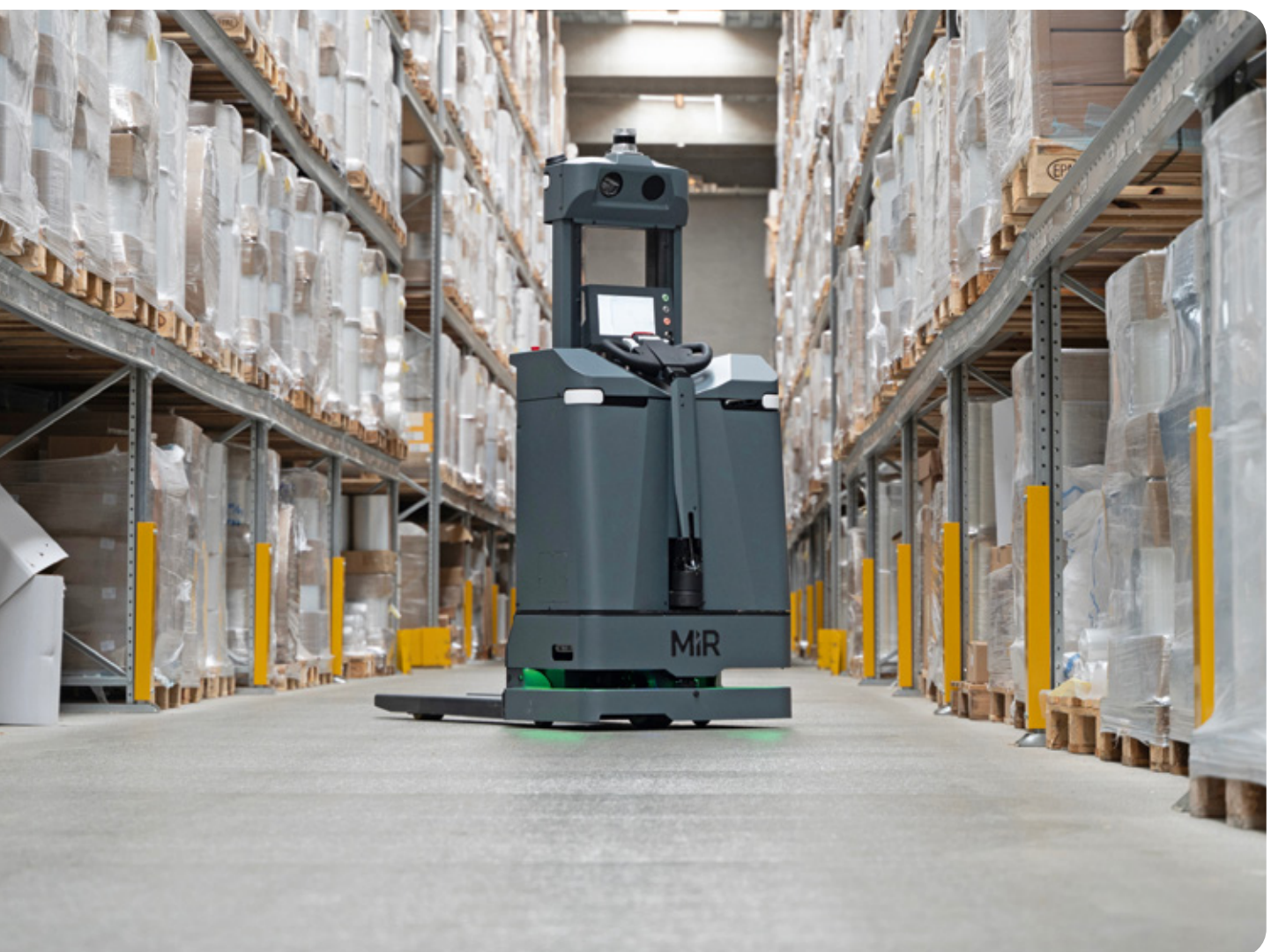


log-robot.com

What is log-robot?

a brand of 
solutions

log-robot is your expert partner for innovative solutions in the field of automation. The focus is on **autonomous mobile robots (AMR)** that increase efficiency and precision in intralogistics and enable companies to react more flexibly and agilely to the challenges of modern industry 4.0. log-robot accompanies you on the path to **automation** and redesigns the future of intralogistics. With many years of experience, we seamlessly integrate the latest technologies into operational processes. As a **distributor of the renowned brands** Zebra Robotics Automation, Mobile Industrial Robots (MiR) and Innok Robotics, we place great value on excellent advice and service in order to offer **customised solutions** for every specific requirement, be it the internal transport of goods, the automation of recycling processes, simplifying picking or demanding tasks in outdoor areas. Under the umbrella brand S&K Solutions GmbH, log-robot offers **Smart Solutions for your Success**.



= What are AMRs?

Autonomous mobile robots (AMRs)

are intelligent, independently navigating systems that are used for a variety of tasks in logistics, production and other industries. Unlike conventional, fixed transport solutions such as conveyor belts or automated guided vehicles (AGVs), AMRs move **flexibly and independently** through their environment. They use the latest sensors, cameras and algorithms to **detect obstacles**, dynamically plan routes and move safely around the plant.



ADVANTAGES OF AUTONOMOUS MOBILE ROBOTS

- **Increased efficiency**
by taking over repetitive and time-consuming transport tasks and relieving employee stress
- **Flexibility**
through rapid adaptation of the robots to changing requirements, for example during production spikes or restructuring
- **Lower operating costs**
by eliminating the need for investment in fixed infrastructure



AMR MANUFACTURER AT LOG-ROBOT

Zebra
Robotics Automation™

MiR


Innok
Robotics

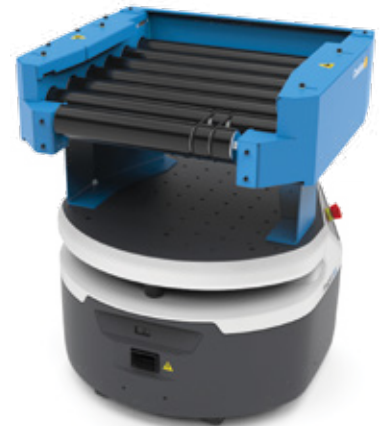

PUDU

Zebra Robotics Automation

EXTENSIVE AMR PORTFOLIO

Zebra is a manufacturer of mobile computer technology and, since its acquisition of "Fetch Robotics", also a producer of autonomous mobile robots. Zebra particularly stands out in the market due to the **diversity of its product range**. By using a powerful base module, the robots can be flexibly adapted to many tasks – from the punctual delivery of production material between workstations, to support in picking processes, to closing gaps between conveyor belt systems.

The Zebra Roller model (fig. right), for example, automatically docks onto a roller conveyor belt, picks up the goods that have been moved to it, and then transports them completely autonomously through the warehouse to the production line or to the next belt connection.



SELECTION FROM THE PORTFOLIO

- **Zebra Connect** autonomously moving shelves (fig. below)
- **Zebra Flex** rolling helpers for picking
- **Zebra Roller** transport of goods between roller conveyors



SECURE AUTOMATION

Cutting-edge sensors and 3D scanners make the AMRs offered by log-robot **safe work colleagues**. They reliably avoid people and obstacles and find a new route to their destination.

After a **one-time mapping of the area**, the robot knows which areas it is allowed to enter and where it has to stop. When the battery is empty, the AMR navigates to the nearest charging station.

Zebra
Robotics Automation™

Mobile Industrial Robots

EXPANDABLE FOR EVERY JOB

Mobile Industrial Robots (MiR) produces autonomous mobile robots that have been developed to optimise internal transport processes and for material supply. Due to its modular design, the robot base can be equipped with a variety of attachments and converted for special tasks.

The MiR Hook 250 attachment (fig. right) makes it possible to continue using and automate an existing fleet of trolleys in an uncomplicated way. With additional robot arms, the MiR250 can be transformed into a mobile production and assembly aid.



SELECTION FROM THE PORTFOLIO

- **MiR250**

A fast and agile AMR for loads up to 250 kg. Ideal for confined spaces and dynamic environments.

- **MiR600**

Conveys pallets weighing up to 600 kg at speeds of up to 2 m/s.

- **MiR1200 Pallet Jack**

The high-performance AMR is a fully autonomous forklift truck used in warehouses and production facilities to transport loads of up to 1,200 kg (fig. left).



POWERFUL SOFTWARE

With the **MiR Fleet software**, up to 100 robots can be controlled centrally via PC, tablet or smartphone. This enables full control of the used AMR both locally and remotely.

MiR

Innok Robotics

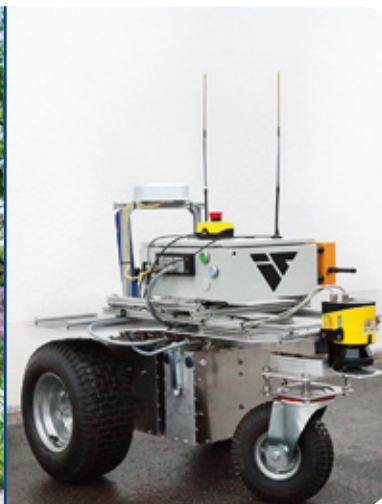
AMRs FOR INDOOR AND OUTDOOR USE

Innok Robotics builds autonomous mobile robots that are specifically designed for working in harsh environments, for outdoor use – and for moving heavy loads. One example is **INDUROS** (fig. right). This power pack can pull trailers weighing up to 1,000 kg, even over uneven ground and slight inclines. With its automatic coupling, the AMR can dock independently with the trolleys to be collected and transport them safely to their destination. This makes transporting materials between different halls much easier and more efficient, even outdoors.



SELECTION FROM THE PORTFOLIO

- **INDUROS** powerful transport robot
- **RAINOS** fully automatic watering robot (fig. bottom left)
- **INSPECTOS** monitors and controls cables and extensive grounds (fig. bottom right)



SAFE OFF-ROAD

The **large wheels** are a special feature of the Innok robots. The AMR effortlessly overcomes **curbs, potholes** and **uneven surfaces** in the field or on **fragile floors**. Depending on the application, you can choose between three- and four-wheeled versions, as well as between normal or all-wheel drive. Even tractor treads are available for working on agricultural land, coping with furrows and mud.



= Best Practices

PICKING-PROCESSES

Most errors occur when orders are being put together, with customers returning parcels and costs incurred. The support of autonomous mobile robots eliminates sources of error. Watch the video (QR code) to see how the **Flex Guide robot** (fig. right) navigates employees through the warehouse to get to the required storage locations as quickly as possible. **Light signals on the shelves and robots** indicate where products are to be picked. The screen always shows the status of the packing list, thus **increasing accuracy** in the picking process.



ZEBRA SYMMETRY FULFILLMENT

The combination of modern robots, **portable data collection devices** and AI-supported data analysis **maximises efficiency** when using **Zebra Connect AMRs** (fig. left). The robots do not have to wait until a trolley is fully stocked with new goods. Instead, the control software ensures that the autonomous mobile robots uncouple themselves and drive to the next deployment **while the picking process is still in progress**. An AMR is only sent to pick up the full shelf when requested. This reduces the number of robots required in the warehouse.

PALLET TRANSPORT

Moving heavy loads in warehouse and production environments is often a **dangerous and physically demanding task** for people. Heavy-duty robots reliably transport pallets weighing **up to 1,350 kg** to their destination. Lighter transport tasks are handled by the **Mir600** (fig. right) with a capacity of up to 600 kg. A **fully automatic load lifter** is mounted as a module on the robot base. This enables the robot to pick up and set down pallets autonomously.



PUDU Robotics

CLEANING AND DELIVERY ROBOTS

PUDU Robotics is a global high-tech company from China that specialises in the development, production and distribution of **service robots**. With the aim of increasing efficiency in various industries, PUDU Robotics offers advanced solutions for the modern working world.

The fully automatic robots sometimes offer several labour-saving functions in a single device. The CC1 model (fig. right) vacuums, mops, sweeps and scrubs – and supplies itself with fresh water.



SELECTION FROM THE PORTFOLIO

- **PUDU CC1** autonomous cleaning robot
- **PUDU MT1** automatic road sweeper (fig. below)
- **PUDU T300** Transport/delivery robot with up to 300 kg payload



LARGE AREAS

PUDU's cleaning robots are characterised by their high performance. Depending on the set cleaning depth, the MT1 sweeper can cover up to 6,000 square metres per hour.

The CC1 mopping and vacuuming robot can be used on many types of floor and can be specially equipped with different brushes and attachments for various tasks – for perfect cleanliness without a break.





FOLLOW ME MODE

The **PUDU T300** is an innovative transport and delivery robot that optimises processes in warehousing and logistics. With the **'Follow Me' mode**, the robot automatically follows the employee and stops precisely at their side. This makes picking much easier, as **both hands remain free** and no manual control is necessary. Efficiency and ergonomics are improved, walking distances are minimised and productivity is increased – ideal for modern warehouse processes. At the same time, this AMR can also be used as a **towing tractor** and combined with trolleys and carts (fig. right).













AGILITY AND AUTONOMY

Thanks to its compact footprint, the **PUDU T300** can easily navigate narrow aisles and requires very little space to turn around. It remains efficient and flexible even in **narrow storage areas**. Its intelligent control system enables obstacle avoidance and even **opening doors and calling** lifts to independently change floors. This optimises material flow and increases efficiency – all without manual intervention. It has a maximum **payload of up to 300 kg** and a battery life of up to 12 hours. When the battery is low, it heads for the nearest charging station.

USE IN PUBLIC PLACES

Cleaning robots from PUDU Robotics are designed for continuous operation and high efficiency to ensure **constant cleanliness** even in busy places. Supermarkets use the cleaning robots during business hours because they safely avoid collisions with people. The robots have also been successfully tested in schools, airport terminals and factories for electronic components, where a **particularly dust-free environment** is essential.



Eigenschaften				
 Nutzlast	depending on model 52 to 250 kg	depending on model 250 to 1,350 kg	depending on model 70 to 1,000 kg	up to 300 kg (Model T300)
 Anwendungen	<ul style="list-style-type: none"> • Picking assistance • Material transport • Trolley movement 	<ul style="list-style-type: none"> • Pallet transport • Trolley transport • Forklift 	<ul style="list-style-type: none"> • Moving heavy loads • Driving on uneven or cracked floors 	<ul style="list-style-type: none"> • Mopping • Sweeping • Vacuuming • Material transport
 Geschwindigkeit	1,75 m/s	1,2 to 2 m/s	0,9 to 1,8 m/s	up to 1,2 m/s adjustable
 Akkulaufzeit	up to 9 hours	8 to 17 hours	up to 16 hours	up to 12 hours
 Modularität	Roller conveyor attachment, various shelf sizes can be used	Robot arms, hooks for individual trolley transport	Attachment of tools, e.g. snow plough, brush, inspection camera	Additional water tanks, extendable steering handles
 Umgebung	Indoor	Indoor	In- and Outdoor	Indoor

Smart Solutions for your Success.

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