

Enabling true collaboration between human and machine

we serve humanity.



The first cognitive robot.

MAiRA is the world's first commercially available cognitive robot. With integrated artificial intelligence and novel Touchless Safe Human Detection Technology, MAiRA can perceive its surroundings and easily adapt to all industrial environments.

Leveraging revolutionary sensors and unprecedented artificial intelligence integration combined with unmatched precision and accuracy, MAiRA opens a new era of robots and offers endless possibilities for interaction.



MAiRA Jr. is the compact version of MAiRA, designed to transfer cognitive functions to small and compact robots. This makes the robot flexible and suitable for all kinds of applications with smaller workspaces such as medical environments, laboratories, or machine tending systems.





Features and benefits

Performance

With a speed of up to 4.5 m/s, a repeatability of 0.01 mm, and absolute accuracy of 0.1 mm, MAiRA is suitable for a variety of tasks and industries while being the fastest and most accurate cognitive robot.

Accuracy

Achieving the highest level of precision and repeatability through in-house developed technologies and sensors is beneficial for all kinds of use cases.

Key technologies



3D vision sensor Object identification, mapping

Safe human detection

Multi-layer redundant human



Safety

collaboration.

Interaction

Artificial intelligence

MAiRA without coding experience.

Path optimization, smart interaction, easy training, modular Python API for advanced users, no internet needed.

MAiRA can see, hear, and feel its environment and reliably

detect nearby humans through its unique Touchless Safe

Human Detection Technology, enabling true human-robot

MAiRA responds to voice commands, recognizes people,

and can be guided by gesture control. This enables

everyone to interact with the robot naturally and to program

Julia 3D voice recognition

Voice identification, continuous training



Specifications MAiRA Jr./S/M/L

Payload 6-18 kg

detection

Speed 4.5 m/s

Reach 900-1600 mm

Weight 33-56 kg Protection

900-1600 mm

Repeatability ≥±0.01mm **DoF** 6 or 7

Status LED RGB LED on each axis







NEURA

Lightweight Agile Robotic Assistant

Industrial performance meets cost efficiency.

LARA is a collaborative robot with six degrees of freedom that combines the agility of lightweight design with industrial performance in terms of speed, precision, and protection. Robust design and high performance make LARA suitable for applications that are not feasible for other collaborative robots. Thanks to the intuitive user interface, anyone can effortlessly create programs for LARA that automate simple and repetitive tasks in any production environment - for beginners and experts alike.



Features and benefits

Fast and strong

LARA is the first choice when it comes to automating simple and repetitive tasks, helping to save costs and maximize revenue.

Highest precision

LARA can safely handle all types of delicate parts and assemble objects with consistent force, eliminating waste and preventing costly collisions. Combined with its high-precision encoders and powerful control system, it can follow defined paths in the most precise way.

Simple UX

The tablet-based graphical user interface, which visualizes the robots in a three-dimensional space, enables everyone to program LARA with ease.

Safety

Sensorless collision detection enabless a fe collaboration with humans and makes the robot suitable for a wide range of tasks and applications.

Ready to go

Thanks to specially designed control systems, LARA can be seamlessly integrated into any production line without incurring additional costs.

Cost-efficiency

With all major components designed and manufactured in-house, LARA is competitively priced and allows anyone to enter the world of collaborative robots, especially small and medium-sized businesses.



Specifications LARA 3/5/8/10/15

Payload 3-15 kg Speed Up to 200°/s

Weight 17-55 kg Protection

Reach 590-1300 mm

Repeatability Up to ± 0.02 mm

DoF

Status LED RGB LED on the TCP







M 1500

The autonomous mobile robot is designed to collaborate with YOU.

With its ability to autonomously load and transport any type of goods, MAV is revolutionizing intralogistics.

The integrated sensors enable MAV to navigate without additional peripherals. Thanks to its user-friendly interface, MAV can be easily programmed by anyone.

Combining MAV with MAiRA or LARA expands the range of applications and makes it the perfect solution for laboratories, logistics, and more.



MAV will make life easier for people in manufacturing plants and streamline production.

Every second of a stopped conveyor belt results in a production stop as operations are cascaded.

With multiple MAVs, one MAV with an empty battery can be directly replaced by another to keep production running smoothly and flexibly thanks to autonomous navigation.



With a payload of up to 500 kg, MAV 500 is a small and agile autonomous vehicle.

Its compact dimensions enable it to navigate through narrow environments, such as doorways, opening up a wide range of applications. These include use cases such as laboratory environments and retail.





Features and benefits

Autonomous

MAV can navigate autonomously and without additional peripheral devices, making it perfect for easy integration into an intelligent fleet management system.

Endurant

With a runtime of up to 10 hours and an inductive charging time of 2 hours, MAV offers high endurance while maintaining ± 5 mm accuracy to the specified position at all times.

Strong

MAV is designed for the transportation of bigger goods than conventional AMRs can handle. With a payload of up to 1.5 tons, MAV is revolutionizing heavy-duty industries, like the automotive industry and many others.

Safe

MAV can detect its environment and safely recognise people and objects nearby, enabling true human-robot collaboration in shared workspace.

Key technologies



3D vision sensor Object identification, mapping



Artificial intelligence

Path optimization, smart interaction



Safe human detection Touchless sensor technology

Suchiess sensor technology



Specifications MAV 500/1500

Payload 500/1500 kg Speed 1.5 m/s

Weight 300/400 kg Protection IP54 **Up time** 5/10 h

Accuracy ±5 mm Status LED

Programmable status







Key technologies

Fully integrated in-house developed hard- and software in one device, enabling flexible use cases with true collaboration between humans and machines.





Safe human detection

Touchless Safe Human Detection is a breakthrough development and unique redundant and diverse technology that enables the safe detection of humans and body parts within a radius of up to 3 meters around the robot. The technology prevents collisions and ensures that the human is not touched by the robot at any time. This is done by reducing the speed based on the given distance and calculating alternative paths around the human. The data provided is processed by artificial intelligence, which directly adjusts the action. The sensor can be integrated into any device or used as a stand-alone device.



Force-torque sensor

Force-torque sensors in all axes let the robot feel and thus offer the possibility of limiting forces. This allows the work to be performed with high precision and minimizes the risk of injury. This precision is reflected in the absolute and repeat accuracy that makes our robots the most accurate on the market, thanks to sensor technology developed in-house. In addition, the gears and motors are designed to achieve speeds well above those of the competition, despite high payloads.





360° object scan and training hub for robotic assistants.



360° scan of any object

> Safe local cloud

Secure transfer of data to/from all robots in your production

Labeling of real and synthetic data based on generated 3D-models

Fast training of deep learning models

The 360° object scanning and training hub provides robotics assistants with swarm intelligence. It efficiently scans new or unknown objects and securely shares the created 3D models with a fleet of robots over a local network. In doing so, the Ai Hub perfectly recognizes objects for robotic handling, for example, by directly calculating the optimal gripping point. With a centralized approach to object training based on simulation software and distributed data acquisition, it accelerates the learning process and enables robotic assistants to handle new objects faster to reduce training time, improve robot efficiency, and save costs in any industrial environment.



User experience

Intuitive and natural interaction with robots.

At NEURA Robotics, the user experience is at the core of all software and hardware to make operation and interaction with the robots convenient for everyone. The graphical user interface, which visualizes the robots and their environment in a three-dimensional space, allows users to move all robot joints with a simple click and create applications with an intuitive drag-and-drop system. A special feature of the user experience is the control of the robots by voice. Voice commands can be used to move the robots to specific points, grasp objects, or put them into zero-G mode and move them freely. The programming itself is an intuitive and natural experience. Here, the user can choose between teaching the robots, recording trajectories, training through gestures and speech, coding, or programming. All programming can be done with the teach pendant, so anyone can easily operate the robots.





Mile My interest

My intelligent Personal Assistant

Introducing MiPA, the multi-purpose service robot that can be used anywhere and in any application, from industry to laboratories to offices and our homes.



Thanks to MiPA's unique patented technologies, safety is guaranteed in all types of applications. The platform approach frees the robot from being tied to specific industries and allows it to cover all industries, which is a step forward for humanity. MiPA offers great support in areas where skilled workers are lacking or need to be relieved. Possible applications include hospitals, elderly care, laboratories, retail, offices, and household.





Neuraverse.

MICH IRA

The ecosystem to advance humanity.

Neuraverse is our global partner program that lays the foundation for a robust, forward-thinking, and diverse community of partners who effectively contribute to leveraging the enormous market potential of intelligent automation. This community is supported not only by NEURA providing our stateof-the-art robots and versatile technology resources but also through groundbreaking software and enablement and support services designed to foster advanced solutions in a variety of fields around the world. In addition, NEURA Robotics strives to actively support its partners in networking, co-creating, and collaboration so that the community becomes a vibrant global force in the field of "intelligent automation".

The Neuraverse partner program aims to create a platform to jointly realize diverse solutions for intelligent automation to serve people in business and personal life. With Neuraverse, we strive to create a unique global ecosystem where ambitious and capable partners such as industry champions, system integrators, specialized machinery providers, distributors, consultants, and many more come together to bring cognitive robots and intelligent automation to all areas of life.









About NEURA Robotics

NEURA Robotics is a German high-tech company founded in 2019 in Metzingen near Stuttgart with the vision to revolutionize the world of robotics. The goal of NEURA Robotics is to expand the cognitive capabilities of robots and make breakthrough advances in a variety of fields, bringing robots and humans closer together and making many fields of work more attractive, creative, and social again, true to the guiding principle "we serve humanity".

NEURA Robotics believes that humans should be able to do what is at the core of human nature. This way, people can express their creativity and refocus on social interactions instead of doing unhealthy and monotonous work that is still prevalent in society. Behind these visions and goals is a strong team dedicated to serving humanity and pushing new boundaries every day.

In just three years, NEURA Robotics has evolved from a robotics manufacturer to a technology provider. What started with the first cognitive robot MAiRA, the costefficient and precise cobot LARA, and the mobile platform MAV has evolved into a wide range of products and technologies. Today, we cover various markets with our product diversity, which includes complete robotic solutions as well as mobile manipulator solutions.

Our latest invention, the multi-purpose robot MiPA, will continue to push the boundaries and bring people and robots together for good. We believe there will be a robot in every home to assist with a variety of tasks, creating more time for things we can truly enjoy.

Imagine what comes next...





















