

Multi-Sensing Intelligent Robotic Assistant

Enabling true human-machine collaboration.



# The first cognitive robot.

### **Smart**

Integrated Al for multi-modal interaction.

### Safe

Novel Touchless Safe Human Detection sensor technology.

### **Fast**

High speed cycle rates combined with a 360° working range.

### **Accurate**

Technology to enable the most advanced use cases.



MAiRA is the world's first commercially available cognitive robot. Integrated AI and novel Touchless Safe Human Detection sensor technology enable MAiRA to perceive its surroundings and easily adapt to all kinds of environments.

# Strong and flexible. Fast and accurate.





**Payload** 

9 - 18 kg



Speed
Up to 360 °/s

 $\bigvee$ 

Reach

1100 - 1600 mm

0

Weight

51-56 kg



## Safe human detection

MAiRA can perceive its environment, reliably detecting nearby humans through its unique Touchless Safe Human Detection Technology, enabling true human-robot collaboration.



### Next-level interaction

Through its integrated AI, MAiRA understands and 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 MAiRA with the teach pendant, no coding experience required.



## Performance

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



## One device, built in-house

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

# Made for any industry.

Thanks to its cognitive skills, MAiRA can be used anywhere, from industrial settings to shared workspaces with humans.













# Full cognition through artificial intelligence.



#### **Multi-modal**

Voice and gesture control Face detection Text commanding Remote operation

#### **Integrated AI**

No internet connection required On-device training and deployment Generalized trained models

#### **Fully cognitive**

Object detection
Pose estimation
Object tracking
Environment mapping
Simulated programming



# A new way of safe human-machine collaboration.

Touchless Safe Human Detection Sensor



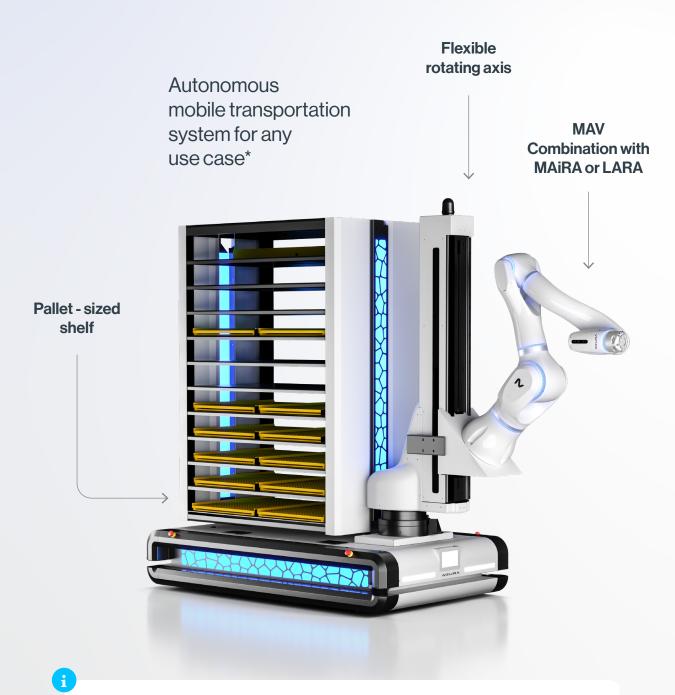


**Safe** recognition of humans and body parts, PLe Cat.3 / SIL3



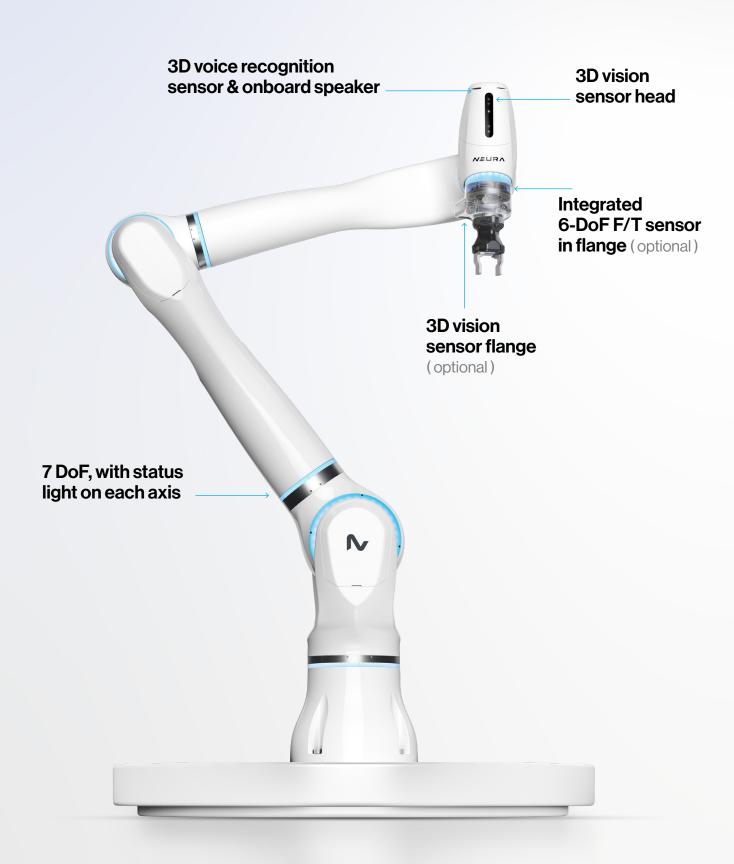
**Redundant** and diverse technology

# Mobile manipulator solutions for a maximum of flexibility



Combining MAV with a collaborative robot enables full process automation, which significantly reduces time for a single operation. Combining this system with a shelf allows handling of smaller production parts.

# MAiRA® Pro feature sets





# Full performance for any variant

MAiRA°		Basic S/M/L	<b>Pro</b> S/M/L
Artificial Intelligence		_	•
Connector flange	Compressed air	0	0
Feature options	6-DoF F/T-sensor in flange	0	0
	Touchless Safe Human Detection technology	0	0
	Custom color	0	Ο
Vision	3D vision sensor (head)	_	•
	3D vision sensor (flange)	_	Replaces serial 3D vision sensor (head)
	3D vision sensor gesture control	_	0
Interaction	3D voice recognition sensor & on-board speaker	-	•
	Visual feedback Laser RGB	-	

<sup>=</sup> Standard feature

O = Optional feature

<sup>- =</sup> Not available

<sup>\*</sup> Available for pre-order.







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