

# MAiRA Jr.

Multi-Sensing Intelligent  
Robotic Assistant



## Data sheet

### MAiRA is the first cognitive robot.

With fully integrated novel sensors and an unprecedented integration of artificial intelligence in control systems and applications MAiRA is leading a new era of robots. The robust and rigid design combines the performance of a high-end machine with easy programming and infinite possibilities for interaction – both for beginners and experts. MAiRA tears down the boundaries between humans and machines and brings them closer together for good.

#### General Specs

#### MAiRA Jr.

<b>Payload</b>	6-8 kg
<b>Reach</b>	900 mm
<b>Degrees of Freedom</b>	6 or 7 rotating joints
<b>Weight</b>	32 kg without cables
<b>Robot Mounting</b>	Any orientation
<b>IP classification</b>	IP65
<b>Data &amp; Power Cables</b>	Complete inner harness and ducts
<b>Footprint Base</b>	Ø 200 mm
<b>Status Illumination</b>	RGB LED on each axis
<b>Tgt. Performance Level</b>	Pld Cat.3 / SIL3
<b>Tgt. Repeatability</b>	Up to ± 0.02 mm

#### TCP Connector Flange

<b>Hole pattern</b>	DIN ISO 9409-1-50-7-M6
<b>I/O power supply</b>	24V 600mA
<b>Interfaces</b>	EtherCAT, GPIO, Modbus via M8 8-pin-A-M  IEC 61076-2-104

#### Sensors

<b>Vision</b>	3D RGB-D Camera
<b>Force/Torque (*opt.)</b>	6-DOF F/T-Sensor in Flange
<b>Safety (*opt.)</b>	Touchless Safe Human Detection
<b>Sound</b>	3D Voice Recognition Sensor

\* optional features are available at additional cost

## Movement

	Working Range	Maximum Speed
A1	±180°	150 °/s
A2	±110°	150 °/s
A3	±180°	150 °/s
A4	±150°	200 °/s
A5	±180°	200 °/s
A6	±150°	360 °/s
A7	±180°	360 °/s

## Software & Controller

<b>Motion Controller</b>	Real-Time NR-Motion Master
<b>Machine Learning (ML) Kernel (*opt.)</b>	Smart Applications, Performance Enhancement
<b>Open Architecture</b>	3rd Party Apps, Access to Low Level Controllers & Sensor Data
<b>Software Interfaces</b>	Robot, Sensor & AI SDKs
<b>Safety Architecture</b>	Safe Master & FSoE Communication
<b>Safety Features</b>	STO, SS1, SS2, SBC, SLS

## Control Cabinet

<b>Dimensions</b>	598 mm x 540 mm x 236 mm 23.5 in x 21.3 in x 9.3 in
<b>Weight</b>	25 kg / 55.1 lbs
<b>Power Supply</b>	100-240 VAC, 50/60 Hz, 3,2 kW
<b>Interfaces</b>	EtherCAT, TCP/IP, Modbus TCP, GPIO, UDP, OPCUA
<b>IOs</b>	20 configurable safe IOs 14 digital in 8 digital out 10 digital in/out 8 analog in 8 analog out



## Programming Features

<b>Smart GUI</b>	NR Easy Programming Interface NR-Motion Master
<b>Fast Programming</b>	Shortcut Buttons, Voice Control, Gesture Control (*opt.), Dynamic Path and Force Recording
<b>Human-Robot-Interaction</b>	Visual-, Audio- and Force-Feedback, Face Recognition, Motion Tracking
<b>Environment Visualization</b>	3D CAD Data & Sensor Data



## Teach Pendant

<b>Dimensions</b>	285 mm x 228 mm x 95 mm 11.2 in x 8.9 in x 3.7 in
<b>Resolution</b>	1280 x 800
<b>Display</b>	10.1" touchscreen
<b>Cable Length</b>	5 m / 196.8 in

### Note:

We reserve the right to make technical changes to the products and changes to the contents of this document at any time without prior notice. For orders, the respective agreed properties are decisive. NEURA Robotics GmbH assumes no responsibility for any errors or omissions in this document.

We reserve all rights to this document and the objects and illustrations contained herein. Reproduction, disclosure to third parties or exploitation of its contents even in part is prohibited without the prior written consent of NEURA Robotics GmbH.

### NEURA Robotics GmbH

Gutenbergstraße 44  
72555 Metzingen | Germany  
Phone: +49 (0) 7123 87970 0  
E-Mail: info@neura-robotics.com  
www.neura-robotics.com

neura-robotics