

NEURA
ROBOTICS



THE NEW ERA OF COGNITIVE
ROBOTS

#WESERVEHUMANITY

WE BELIEVE



A ROBOT SHOULD **PERCEPT** AND **INTERACT** WITH THE ENVIRONMENT
AND
EVERYBODY SHOULD BE ABLE TO **USE THEM**

THE SOLUTION



PERCEPTION

OF THE ENVIRONMENT

**INTUITIVE | SAFE
INTERACTION**

WITH THE PHYSICAL WORLD



**COGNITIVE
ROBOTS**

UNDERSTANDING

OF COMPLEX SITUATIONS

LEARNING

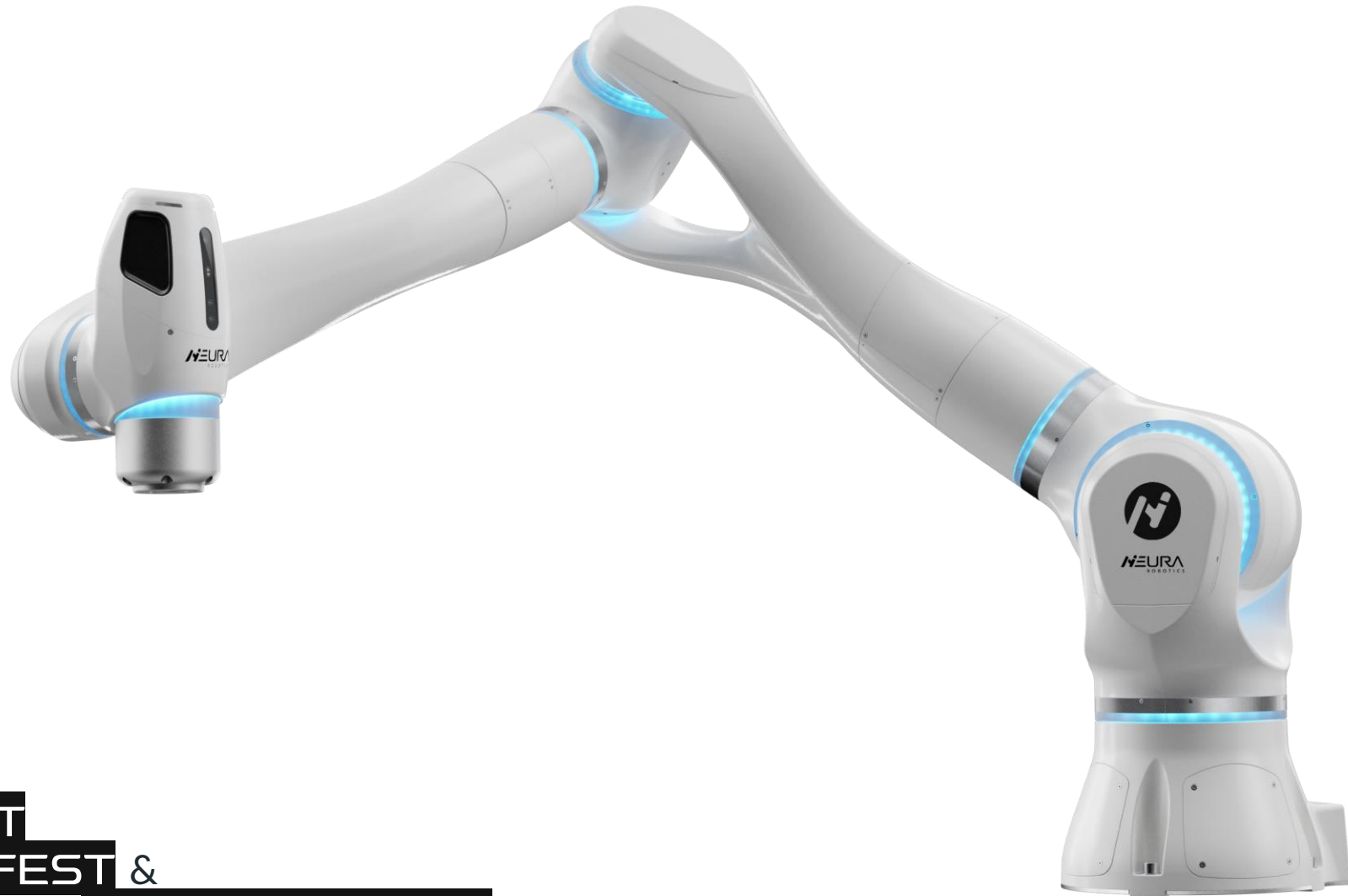
CONTINUOUSLY

MAiRA[®] MULTI-SENSING INTELLIGENT ROBOTIC ASSISTANT



reddot winner 2021

World's **FASTEST**
SMARTEST
SAFEST &
MOST ACCURATE Cobot



Designed and Engineered in  GERMANY

MAIRA PRO SERIES // THE FASTEST COBOT



4.5 m/s

Movement

	Working Range	Maximum speed
A1	$\pm 360^\circ$	120 °/Sec.
A2	$\pm 120^\circ$	120 °/Sec.
A3	$\pm 270^\circ$	150 °/Sec.
A4	$\pm 150^\circ$	150 °/Sec.
A5	$\pm 270^\circ$	200 °/Sec.
A6	$\pm 160^\circ$	200 °/Sec.
A7	$\pm 360^\circ$ / endless optional	360 °/Sec.



MAIRA PRO SERIES // THE SMARTEST COBOT



AI INCLUDED

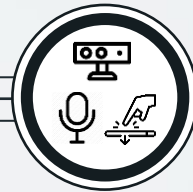


**COMPREHENSIVE
ENVIRONMENTAL
PERCEPTION**

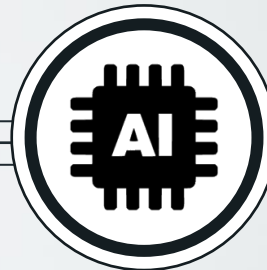


AUGMENTED INTELLIGENCE

SENSORS



INTEGRATED



CPU
GPU



APPLICATION LEVEL

Motion Planning
Voice commanding
Vision | Object Identification
Smart Assembly
User Interaction & Programming



CONTROLLER LEVEL

Error Compensation
System Improvement
Predictive Maintenance



SENSOR & ML SDK

3rd Party Development
Access to Sensor Data
Development Platform for Democratization of AI

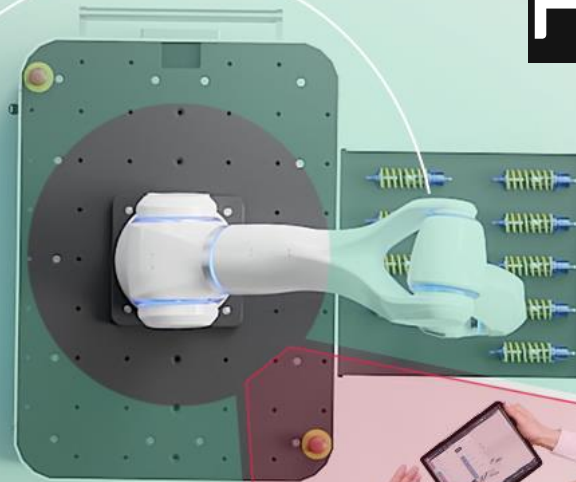
MAIRA PRO SERIES // THE SAFEST COBOT



TOUCHLESS SAFE
HUMAN DETECTION

PLC / SIL3

Up to
3m Range



Safe Classification
Of Humans



Redundant & Diverse
Technology

MAIRA PRO SERIES // THE MOST ACCURATE COBOT

NEURA
ROBOTICS



REPEATABILITY

6-10 microns

± 0.006 - 0.01 mm

REPEATABILITY

± 0.1 mm

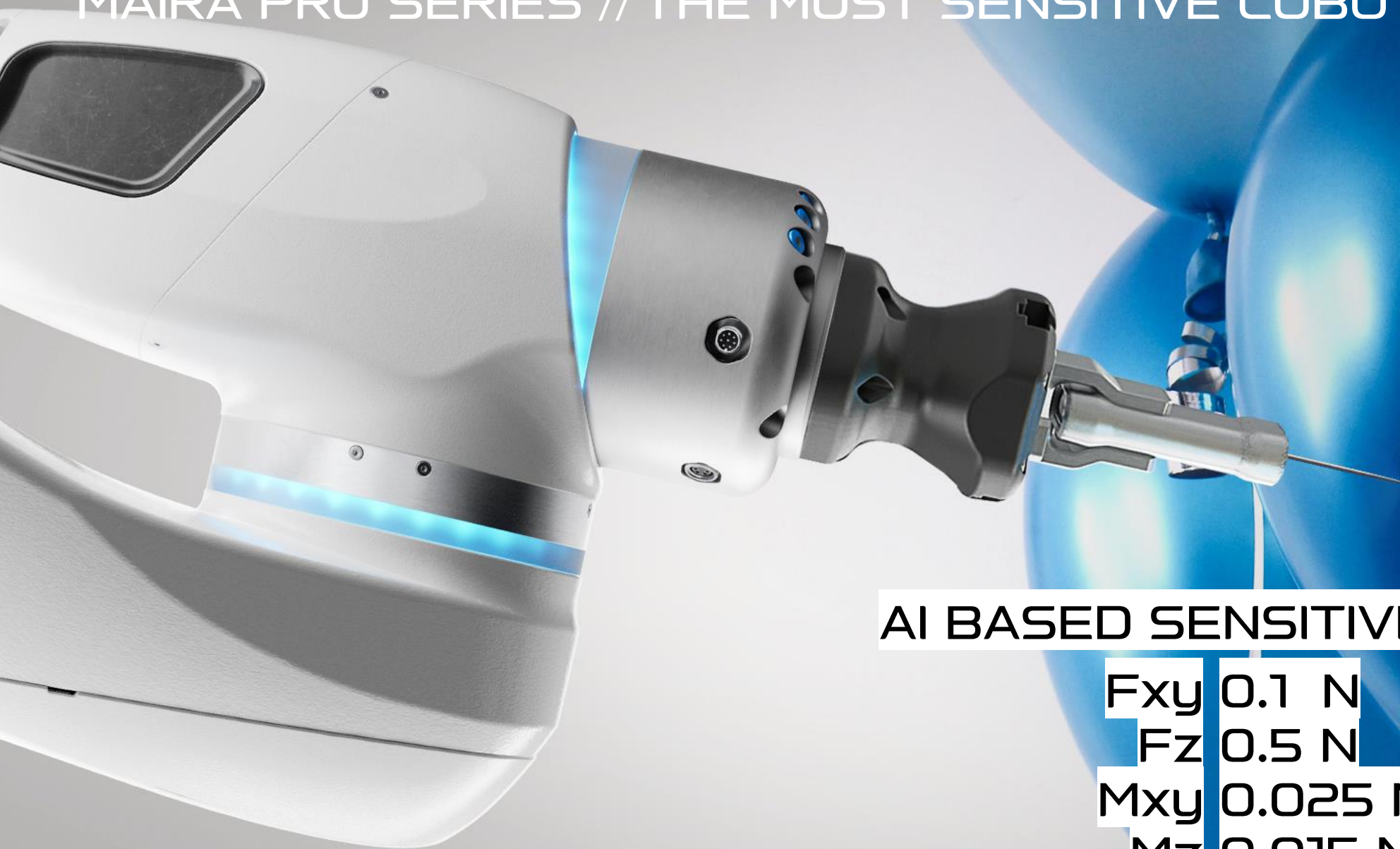
ABSOLUTE

± 0.2 mm

PATH ACCURACY



MAIRA PRO SERIES // THE MOST SENSITIVE COBOT



AI BASED SENSITIVITY

F_{xy} 0.1 N

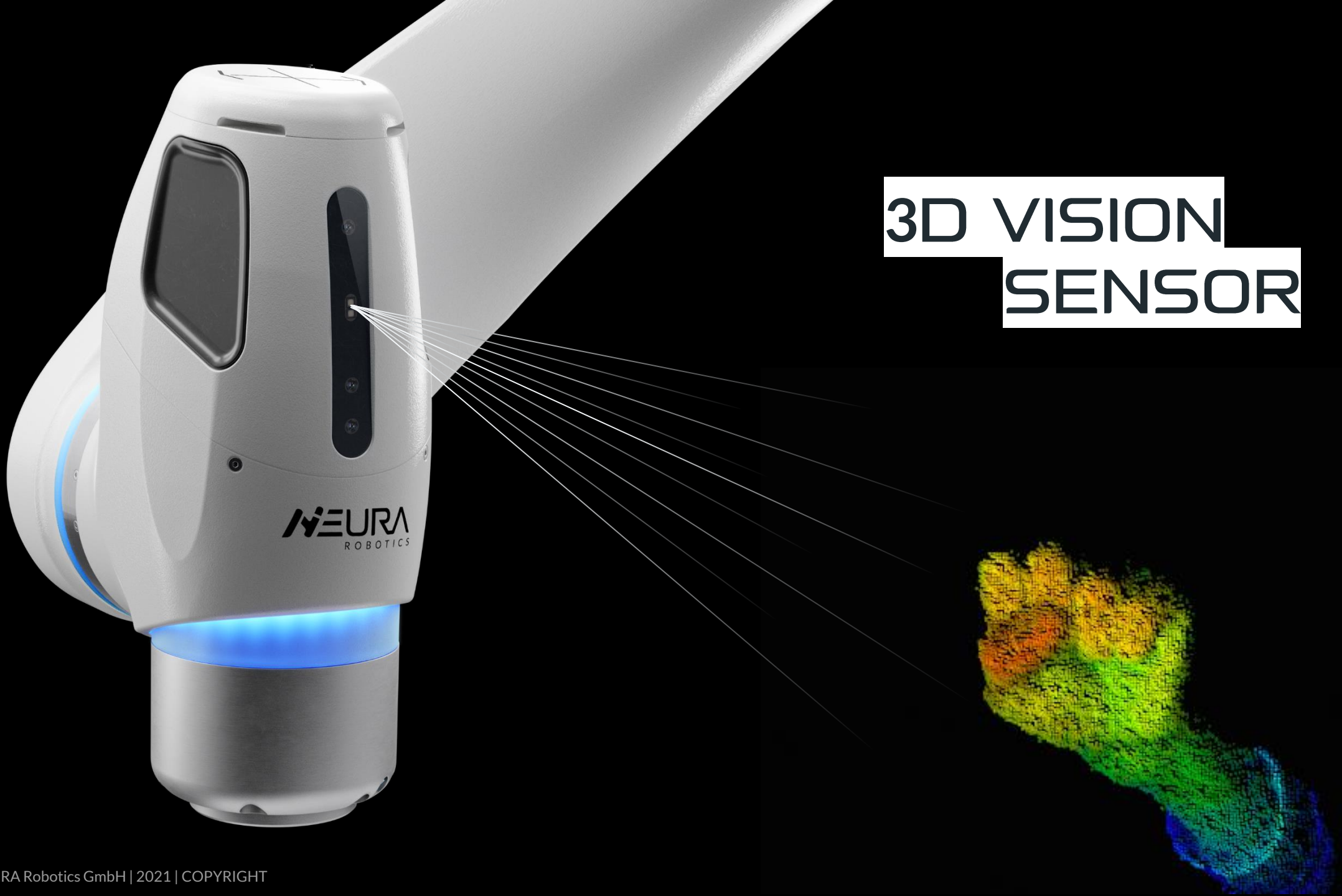
F_z 0.5 N

M_{xy} 0.025 Nm

M_z 0.015 Nm



3D VISION SENSOR



VOICE RECOGNITION AND AUDIO ASSISTANCE



// HEY MAIRA!



HOW CAN I
HELP YOU?

SMART SENSITIVE 6-DOF SENSOR SKIN



6-DOF
SMART SKIN

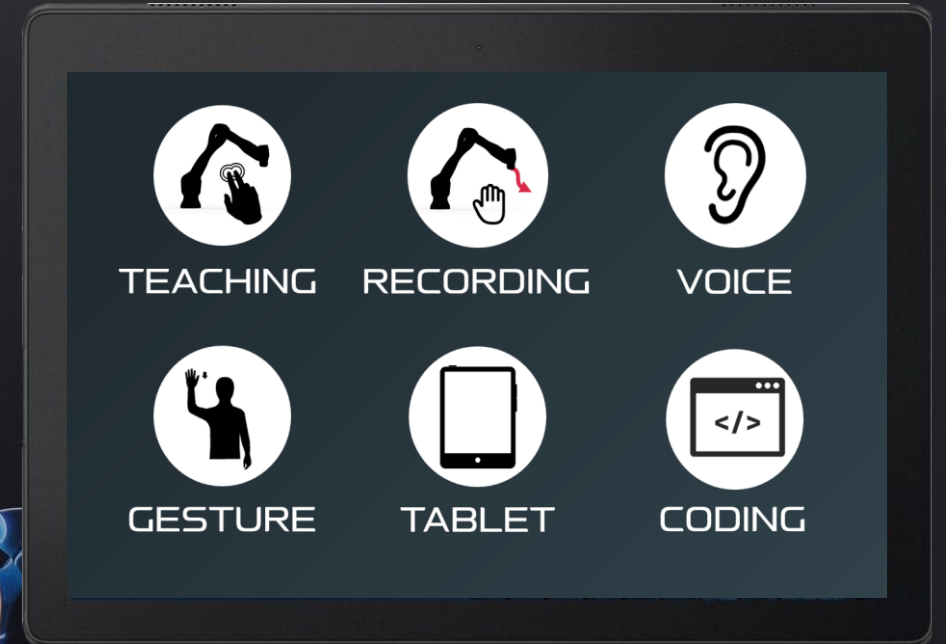
ENABLES PRECISE
GUIDANCE BY TOUCH

NEURA

ROBOTICS



INTUITIVE AND NATURAL
PROGRAMMING EXPERIENCE



GRAPHICAL USER INTERFACE

PALLETIZING



Top Status Bar: MIRA logo, 4:50 PM, Active (green dot), Restart (circular arrow), Power is Off (red power icon), Teach (robot head icon), Simulation (toggle switch), Real (green text), Log (document icon), Info (i icon), Basic User (user icon).

Left Sidebar: PALLETIZE (edit icon), loop_001 Loop (headset icon), p&d_001 PalletizeDe... (pallet icon), imp_001 Impedance (cylinder icon), mr_001 MoveRecor... (circular arrow icon), scan_001 ScanApp (robot arm icon), pick_001 Pick (pallet icon, highlighted).

Central 'ITEMS' Menu: Motion, Logic, Apps (selected). Drag items to program. List of items: Pick, Place, ScanApp, Gripper, PalletizeDepalletize, PalletToPallet.

3D Simulation Area: A robotic arm is shown in a 3D environment. It is positioned over a pallet of orange blocks. Three points are marked: LookingPoint (red dot), Point2 (red dot), and Point3 (green dot).

Bottom Control Bar: 3D Space (globe icon), Camera (camera icon), Save Point (circular arrow icon), Point (robot arm icon), Show Point (toggle switch), Move (robot head icon), Override (slider bar, 63%), EnvCapt (robot arm icon), Touch (hand icon), Controls (robot arm icon).

PERSPECTIVE[®] INTELLIGENT UX CONTROL TABLET



HMI Panel Specifications

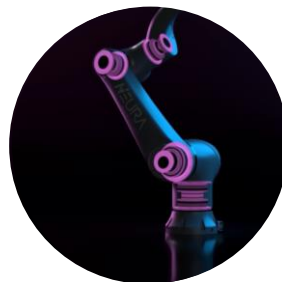
Software	NEURON OX
Dimensions	285 mm x 228 mm x 95 mm 11.2 in x 9 in x 3.7 in
Resolution	1280 x 800
Display	10.1" touchscreen
Cable Length	5 m / 197 in





High Performance Robot Hardware

Fast | Accurate | Robust | Strong



Smart Sensors

Human Detection | Sensitive | Precise



Artificial Intelligence

Adaptive Behavior | Environmental Learning



Safety Architecture

Highest Std. Certification | Flexibility



Advanced Motion SW

RealTime | Sensor Guidance



User Experience

Easy to Use | No Coding | Procedural

MAiRA Pro SERIES // THE LINEUP



MAiRA Pro SERIES // THE LINEUP

MAiRA Pro S

1.050 mm // 15-18 kg

MAiRA Pro M

1.400 mm // 12-15 kg

MAiRA Pro L

1.600 mm // 8-11 kg



Designed and Engineered in  GERMANY

COMPLETE INNER

WIRINGS & DUCTS

TO THE CONNECTOR FLANGE



3 x PRESSURIZED AIR

ETHERCAT
MODBUS
CAN BUS
IO LINK
GPIO

**EVERYTHING INTEGRATED
ALWAYS AVAILABLE**

In order to avoid interfering contours, all media are completely integrated in the robot arm - from the base to the flange. This design provides power supply, compressed air or field buses exactly where they are needed.



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NEURA Online World

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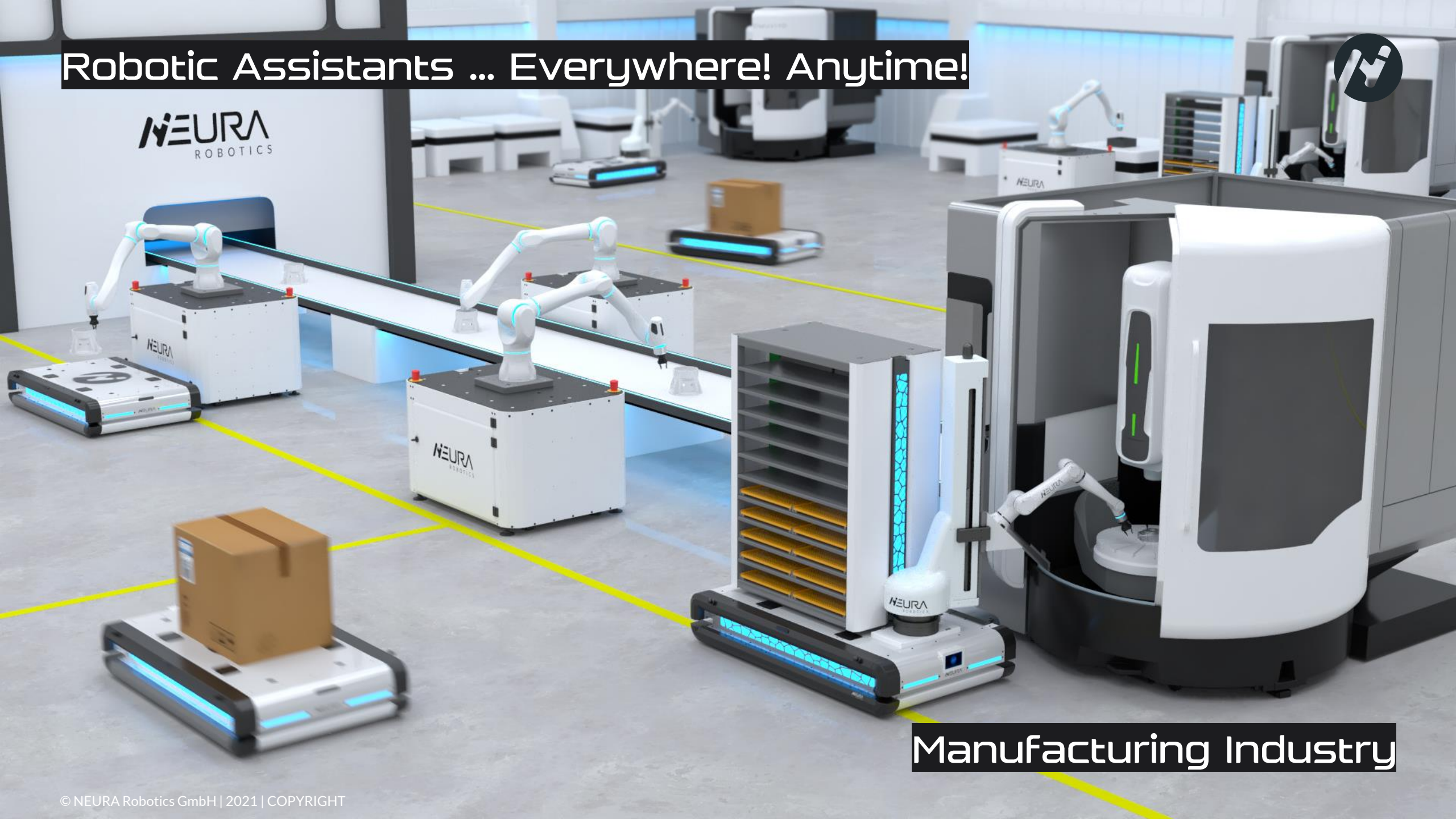
COGNITIVE, INTELLIGENT ROBOTS

Enabler of the
New Era of Robots

Robotic Assistants ... Everywhere! Anytime!



NEURA
ROBOTICS



Manufacturing Industry

Robotic Assistants ... Everywhere! Anytime!



Manufacturing Industry

Robotic Assistants ... Everywhere! Anytime!



Logistics Industry

Robotic Assistants ... Everywhere! Anytime!



Logistics Industry

Robotic Assistants ... Everywhere! Anytime!



Dentistry & Prophylaxis

Robotic Assistants ... Everywhere! Anytime!



Surgical & Medical Screening

Robotic Assistants ... Everywhere! Anytime!



Personal Assistants

OUR PRODUCT LINE UP



Cognitive Robots // Cobots // AMRs



THANK YOU FOR YOUR ATTENTION



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// WE SERVE HUMANITY