

LARA

Lightweight Agile
Robotic Assistant

Performance meets
cost efficiency.



Combining the agility of lightweight design with industrial performance.



Payload

3 - 15 kg



Speed

Up to 200 °/s



Reach

590 - 1300 mm



Weight

17 - 55 kg



With unmatched speed, precision and protection, LARA bridges the gap between the world of collaborative and industrial robots. This way, LARA allows you to automate any production process in a cost efficient way.

Made for any use case.

LARA is your first choice for automating simple and repetitive tasks, helping you to save costs and maximize revenue. No matter the environment.



LARA

flexible

6 degrees
of freedom



A maximum of efficiency.



Technology

First-class performance through state-of-the-art components such as the integrated 24-bit encoders, which are among the highest-resolution on the market.



Cost-efficiency

With all major components developed and manufactured in-house, LARA is competitively priced and allows anyone to enter the world of collaborative robots.



Safety

Its proprietary safety architecture as well as features such as definition of safety positions, speed, torque, zones, limits and collision detection allows LARA to be used in shared environments with humans.



Highest precision

LARA can safely handle all types of delicate parts and assemble objects with consistent force, eliminating waste and preventing costly collisions.



Well protected

Thanks to its compact and robust design and IP66 rating, LARA can be used in all kinds of harsh environments that may not be suitable for other collaborative robots. In addition, dirt can be easily washed off.



Maximum flexibility

To meet your individual needs, LARA comes in several variants with different reach (590-1300 mm) and payload (3-15 kg), all with six degrees of freedom.

Ready to go

Combining MAV with a collaborative or cognitive robot enables complete process automation, significantly reducing the time required for a single operation.

The combination of this system with a shelf allows smooth handling of all types of production parts.



Customizable

Individual painting ensures a perfect match with your surroundings. With additional sensor packages such as a 3D camera module as a flange, LARA can use robot vision for object recognition, autonomous gripping or quality inspection without any effort.

All the interfaces

LARA covers all common interfaces such as EtherCAT, IO-Link, CAN, Modbus and GPIO. The TCP connector flange offers digital I/O ports (in/out), analog in ports, and 24V 600 mA power supply.



LARA is for everyone.

LARA is your first choice for automating simple and repetitive tasks, helping you to save costs and maximize revenue. No matter the environment.

**Drag & drop
system**

**Configuration
wizards**

**Shortcut
buttons**



**Dynamic path
and force recording**

**Programmable
buttons on TCP**



LARA Dual **power**

The creation of a dual-arm platform with two LARA robots enables the efficient handling of demanding tasks such as quality inspection and synchronized co-manipulation of any object.



Benefits

Cycle time reduction

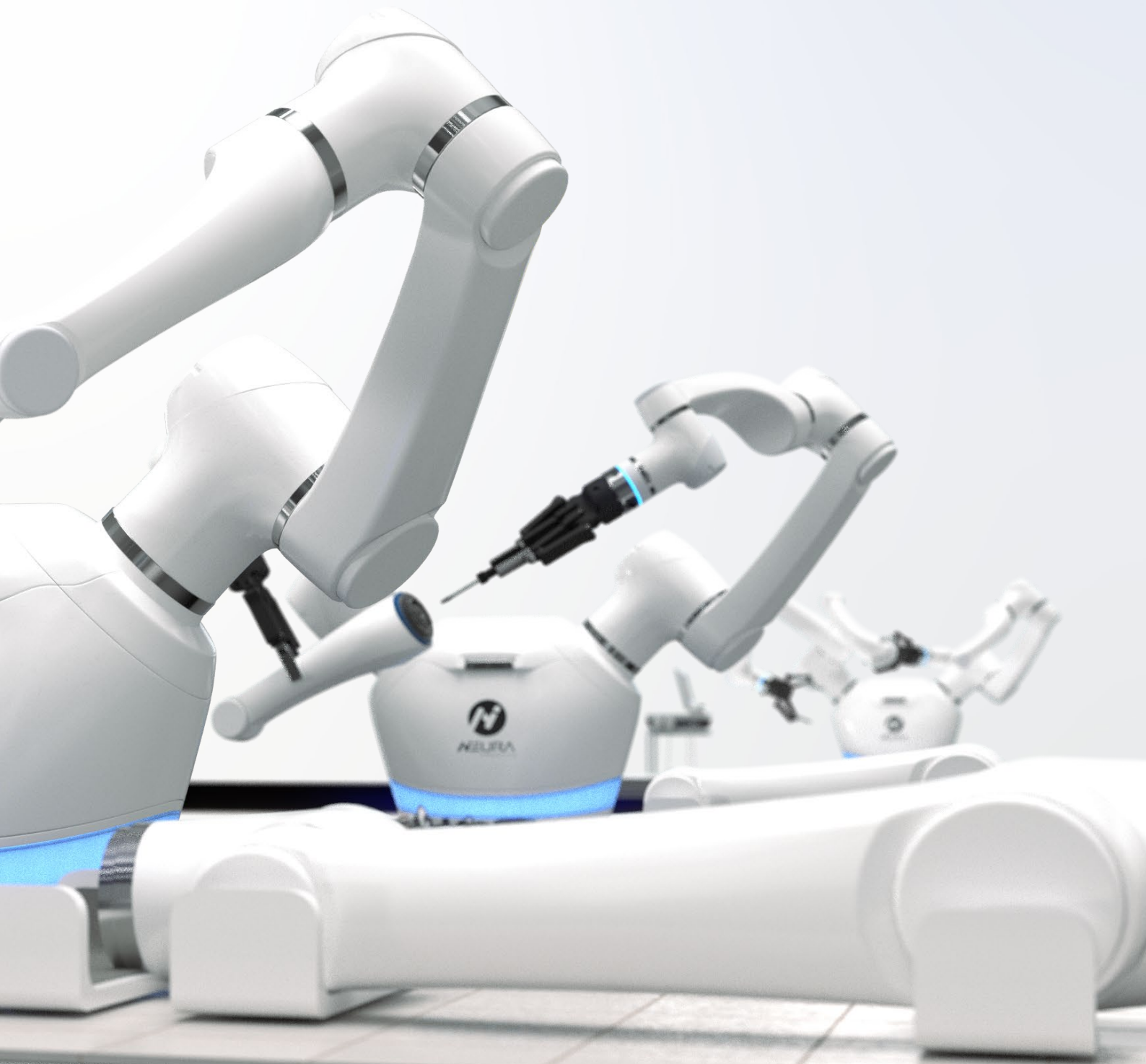
No repeated setting down and picking up to realign the workpiece.

Maximum flexibility

No customized fixtures and process steps are required.

Improved quality

Manipulation of objects far beyond human precision capabilities.







LARA

Technical specifications

General specs	LARA 3	LARA 5	LARA 8	LARA 10	LARA 15
Payload	3 kg	5 kg	8 kg	10 kg	15 kg
Reach	590 mm	800 mm	1300 mm	1000 mm	1300 mm
Degrees of Freedom	6 rotary joints	6 rotary joints	6 rotary joints	6 rotary joints	6 rotary joints
Weight	17 kg	26 kg	48 kg	42 kg	55 kg
Robot mounting	Any orientation	Any orientation	Any orientation	Any orientation	Any orientation
IP classification	IP66	IP66	IP66	IP66	IP54
Ambient working temperature	0 °C – 50 °C	0 °C – 50 °C	0 °C – 50 °C	0 °C – 50 °C	0 °C – 50 °C
Data & power cables	Complete inner harness	Complete inner harness	Complete inner harness	Complete inner harness	Complete inner harness
Footprint base	Ø 156 mm	Ø 156 mm	Ø 200 mm	Ø 200 mm	Ø 200 mm
Tool connector type	M12 12-pole	M12 12-pole	M12 12-pole	M12 12-pole	M12 12-pole
Status illumination	RGB LED on TCP	RGB LED on TCP	RGB LED on TCP	RGB LED on TCP	RGB LED on TCP
Tgt. perf. level	PLd Cat.3 / SIL3	PLd Cat.3 / SIL3	PLd Cat.3 / SIL3	PLd Cat.3 / SIL3	PLd Cat.3 / SIL3
Tgt. repeatability	± 0.02 mm	± 0.02 mm	± 0.02 mm	± 0.02 mm	± 0.02 mm

Movement

Axis	Working angles	Maximum speed	
	LARA 3/5/8/10/15	LARA 3/5	LARA 8/10/15
A1	± 180°	200°/s	140°/s
A2	± 135°	200°/s	140°/s
A3	± 155°	200°/s	200°/s
A4	± 180°	200°/s	200°/s
A5	± 180°	220°/s	220°/s
A6	± 360°	220°/s	220°/s

TCP Connector Flange

Hole pattern	DIN ISO 9409-1-50-4-M6
GPIO	3x digital in, 3x digital out, 2x analog in
I/O port	M12 12-pin-A-M / IEC 61076-2-101
I/O power supply	24V 1.5 A
Electrical interfaces	GPIO, Modbus RTU, 24V PSU
Control functions	2 programmable buttons on TCP

Software & Controller

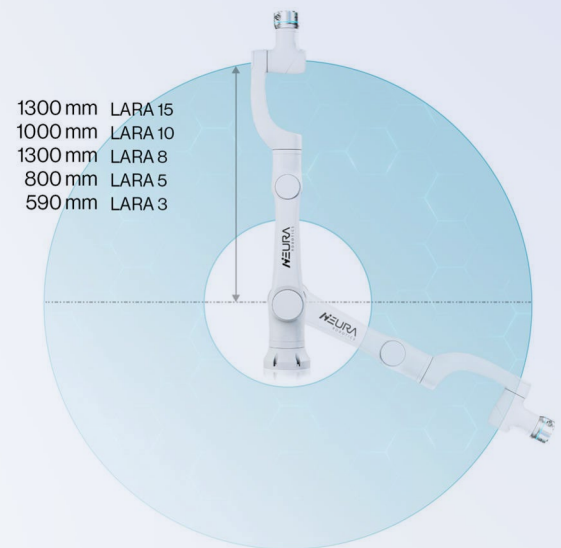
Motion controller	Real-Time NR-Motion Master
Software interfaces	Robot API
Safety architecture	Safe Master
Safety features	Safe position, speed, torque, limits



Control box

Dimensions	450 mm x 380 mm x 210 mm 17.7 in x 15 in x 8.3 in
Weight	25 kg / 55.1 lbs
Power supply	100-240 VAC, 50/60 Hz, 2.3 kW
Interfaces	TCP/IP, GPIO, Modbus TCP, USB 3.0, Safe I/Os

Robot reach



Programming features

Smart GUI	NR easy programming interface
Fast programming	Programmable buttons on TCP, ZeroG, path recording
Human-robot-interaction	GUI, force-feedback, LED indicator on TCP



Tech pendant

Dimensions	285 mm x 228 mm x 95 mm 11.2 in x 9 in x 3.7 in
Resolution	2560x1600
Cable length	5 m / 197 in

Note:

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LARA

next-level
flexibility

LARA

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Robotic Assistant



Official partner:



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...Kir rešitev!

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