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HCR-14

Outperform in all ways, always

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Hanwha

Hanwha

Increased Productivity

Cobots were developed with the purpose of minimizing physically repetitive tasks that strain the human body, such as moving heavy objects.

HCR-14 features a **best-in-class reach of 1,420mm and industry-leading joint speeds (Joint 1-2: 155°/sec, Joint 3-6: 270°/sec)**. The increased reach and speed of HCR-14's robotic arm also offers greater production efficiency.

Ensuring Safety

Utmost importance has been placed on safety so that cobots can work directly alongside humans in shared workspaces without safety fences.

In addition to its integrated safety features, HCR-14's compact design has a reduced **weight of 42kg**, significantly improving safety against collisions. All HCR series cobots also feature **full aluminum alloy exteriors** without the use of any plastics, improving durability in demanding applications such as welding and heavy machine tending.

Intuitive and Simple Controls

HCR-14 supports both an **intuitive, icon-based interface for first-time users**, as well as **scripts and API programming for experienced operators**.

Aside from using teach pendants, the **Multi-Client feature** allows for the same user interface on mobile devices (tablets and smartphones) and custom pages for status monitoring, settings, etc.

HCR-14 features improved communication speeds with an **industry-leading motion and I/O cycle time of 0.5ms**, and offers easy integration with external devices with **built-in Modbus TCP, EtherNet/IP, and EtherCAT**.

* Profinet communications will be available from 2024.

payload of
14 kg

reach of
1,420 mm

3rd Generation Cobot

HCR-14

HCR-14 is a 3rd generation cobot launched in 2023 by Hanwha Robotics, a spin-off company of Hanwha Corporation.

The HCR-14 helps boost productivity with enhanced reach, speed, precision, and cycle times, and aims to focus on the essence of cobots by seamlessly integrating into shared workspaces with humans through its compact design.
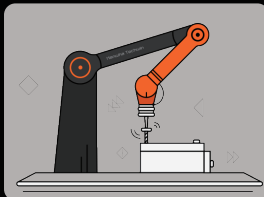
Cobots can be fully customized through an ecosystem of accessories and add-ons that can be attached to the robot arms and be specifically programmed for automation across various industries, ranging anywhere from automobiles to food and beverage.
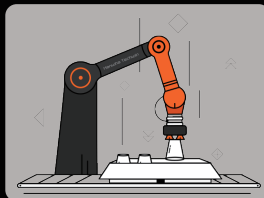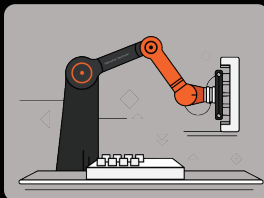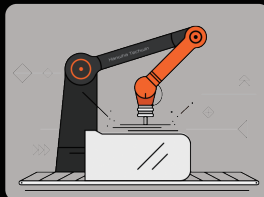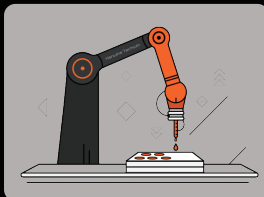
Applications
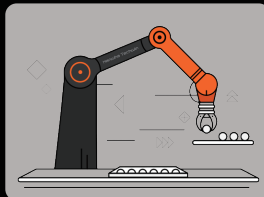
Pick & Place

Assembly

Packaging

Mold Handling

Grinding/Polishing

Dispensing
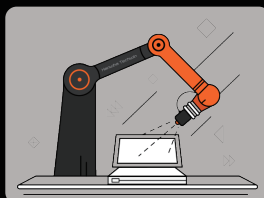
Quality Inspection
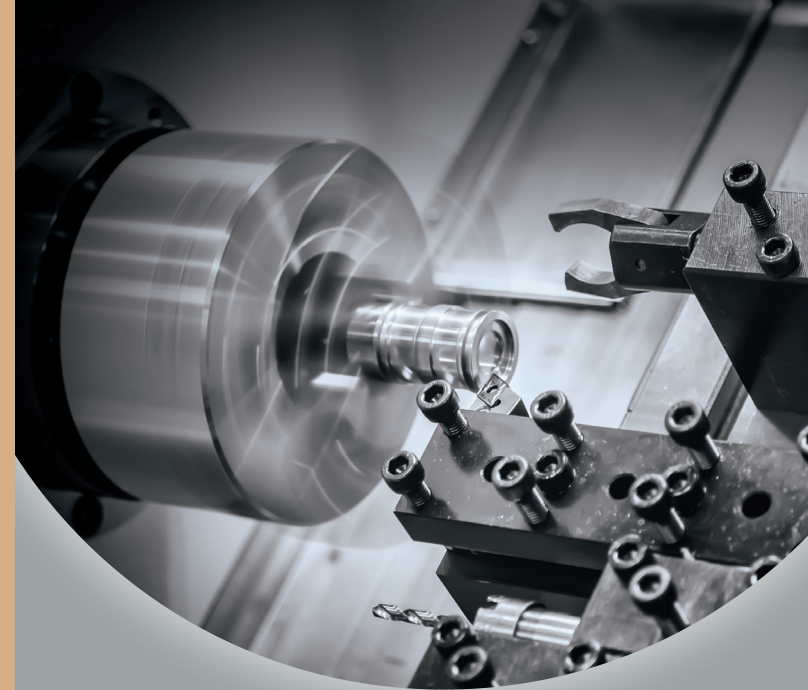
Loading / Palletizing

Machine Tending

Welding

reach of **1,420** mm

Loading / Palletizing

HCR-14 can stack products and materials into containers with great precision, and has a payload capacity of 14kg and a reach of 1,420mm.

Machine Tending

Secure the safety of workers and improve efficiency by automating repetitive pick-and-place tasks with position repeatability of ±0.04mm.

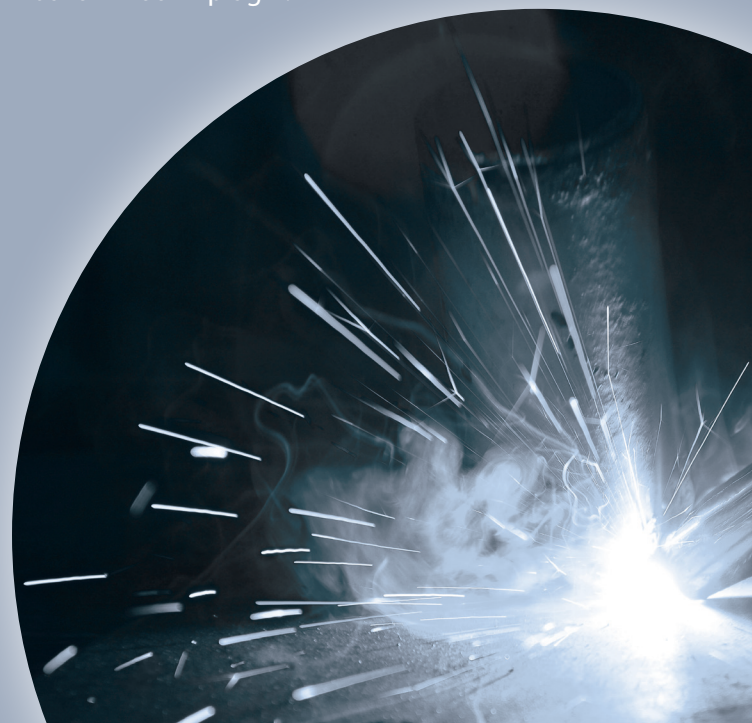position repeatability of
±0.04 mm

built-in
Rodi-X plugin

Welding

It supports three welding weave patterns (Triangular, Sinusoidal, and Trapezoidal) with the built-in Rodi-X plugin.

HCR-14

Scan QR code to find out technical specifications about the HCR series.

Basic Specifications

Reach	1,420 mm
Payload	14 kg
Degrees of Freedom	6

Performance

Repeatability	±0.04 mm
Linear Speed	1 m/sec (Max 1.5 m/sec)
Angular Speed	J1-J2 155°/sec J3-J6 270°/sec
IP Ratings	IP54

Installation

Weight	42 kg
Footprint	Ø190 mm
Robot Mounting	Floor, Wall (Max 30°), Ceiling

Controller

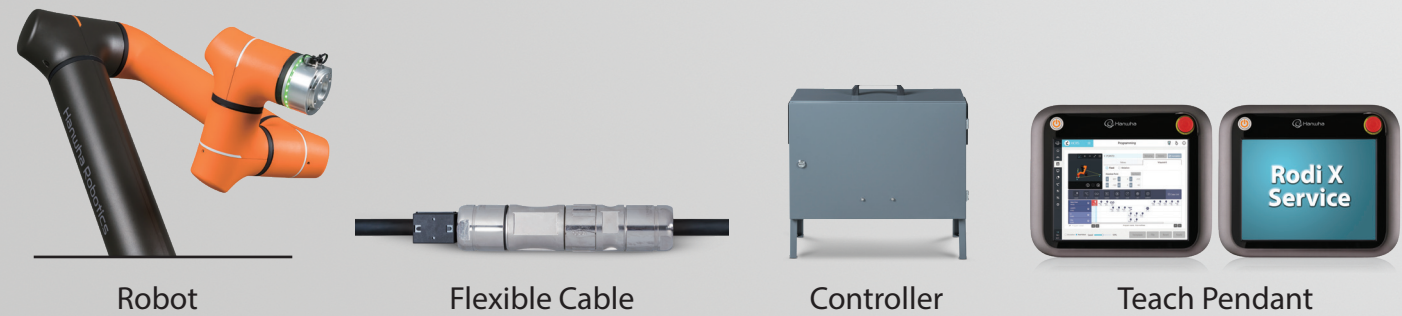|	
Communication Protocols	TCP/IP, Modbus TCP, EtherNet/IP
Power Source	100-240 VAC, 50-60Hz (4kW)
I/O Ports	Emergency 2ch Safety 2ch Digital Flexible 8ch Digital General 8ch Analog 2ch

In the box

Robot	Flexible Cable	Controller	Teach Pendant

	HCR-3A	HCR-5A	HCR-12A
Basic Specifications			
Reach	630 mm	915 mm	1,300 mm
Payload	3 kg	5 kg	12 kg
Degrees of Freedom	6	6	6
Performance			
Repeatability	±0.05 mm	±0.05 mm	±0.07 mm
Linear Speed	1 m/sec	1 m/sec (Max 1.5 m/sec)	1 m/sec (Max 1.2 m/sec)
Angular Speed	J1-J3 180°/sec J4-J6 360°/sec	J1-J3 178°/sec J4-J6 180°/sec	J1-J2 130°/sec J3-J6 200°/sec
IP Ratings	IP64	IP54	IP54
Installation			
Weight	13 kg	21 kg	53 kg
Footprint	Ø128 mm	Ø150 mm	220mm x 227mm
Robot Mounting	Floor, Wall, Ceiling	Floor, Wall, Ceiling	Floor, Wall (Max 30°), Ceiling
Controller			
Communication Protocols	TCP/IP, Modbus TCP	TCP/IP, Modbus TCP	TCP/IP, Modbus TCP
Power Source	100-240 VAC, 50-60Hz (1kW)	100-240 VAC, 50-60Hz (1kW)	100-240 VAC, 50-60Hz (2kW)
I/O Ports	Emergency 2ch, Safety 2ch, Digital Flexible 8ch, Digital General 8ch, Analog 2ch		