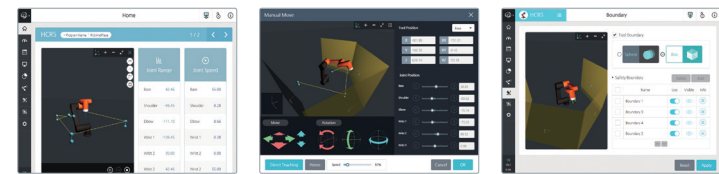# HCR-5

Hanwha Techwin's Collaborative Robot
HCR-5 is a powerful assistant for your business.
The HCR-5 system successfully automates
a wide range of industrial applications with its
**Easy Programming, Flexible Installation, and
Safety Functions.**

Easy

**The HCR-5 system is easy to set-up and operate with its
direct teaching function and intuitive software GUI.**

- To teach HCR-5, an operator simply needs to move the robot arm.
- The movements can be monitored with the real-time 3D simulation.
- The icon-based GUI enables easy operation.
- Even without expertise in robotics, the initial set-up and programming can be completed in half a day.

Web-based Operating Software
HCR-5's status can be monitored in real-time via mobile phone or tablet.

Intuitive GUI
The video-editing-type user interface (UI) visualizes robot operation and tact-time on a timeline.

Flexible

**HCR-5 allows easy & fast re-deployment in diverse
industrial process.**

- Fully operable in small spaces, HCR-5 can be installed in existing production lines without making significant changes.
- It is perfect for high-mix production with its flexibility and simple programming.
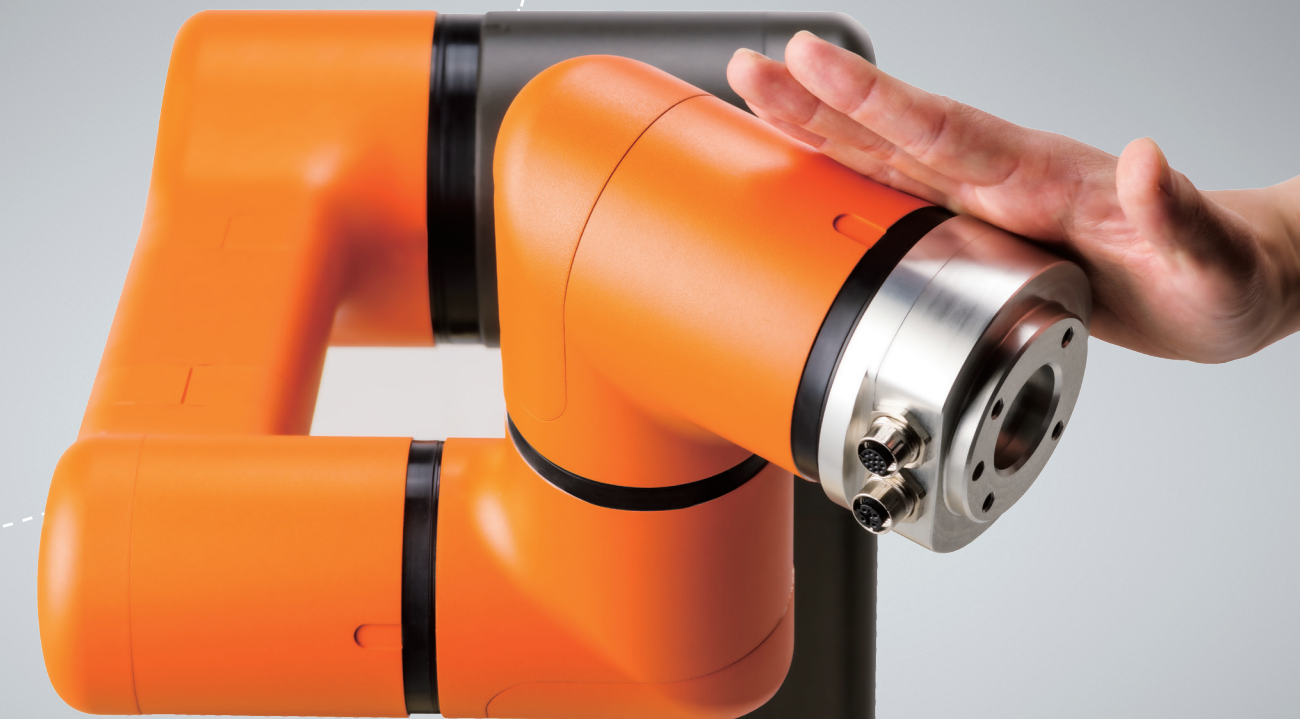
Single Controller for Multiple Robots

One controller can operate two robot arms independently, offering **superior economic efficiency.**

Safe

**HCR-5 can be operated without a safety fence due
to its safety functions**

- Upon detecting a collision, HCR-5 stops immediately.
- Securing a minimum working space, HCR-5 can be safely install anywhere.

HCR-5
Customer Benefits

1 Reduced automation costs

HCR-5

2 Improved production flexibility

3 Secured high stability

1 Initial investment and operating costs can be minimized
- Simple programming and easy set-up reduce the installation cost.
- No special training is required to program and operate the robot due to its intuitive GUI.

2 Easy re-deployment and simple operation
- Compact and lightweight design make installation easy, without the need to modify existing production lines.
- Fast and easy deployment is perfect for small-batch production.

3 Prompt after-sales service and simple repair
- Hanwha's services engineers are always ready to visit your site upon request.
- Modular design ensures the easy replacement of spare parts.

About Hanwha Techwin

OVERVIEW

Hanwha Techwin has maintained its status as a leader in South Korea's precision machinery industry since its establishment in 1977. We consistently pursue business diversification, founded on our optical and imaging technologies and platform technologies for aircraft engines. We are currently engaged in the fields of security, industrial machinery, aircraft and gas turbine engine, energy equipment, and defense.

Hanwha Techwin maintains original and application technologies in all of our business areas, and we provide our customers with optimized products and services through our global network spanning Europe, China, and North and South America. We were first listed on the Korea Exchange (KRX) in 1987, and we continue to invest in future technologies based on our stable operations and financial structure.

FINANCIAL HIGHLIGHTS in 2015 (in USD Millions)

Total Sales
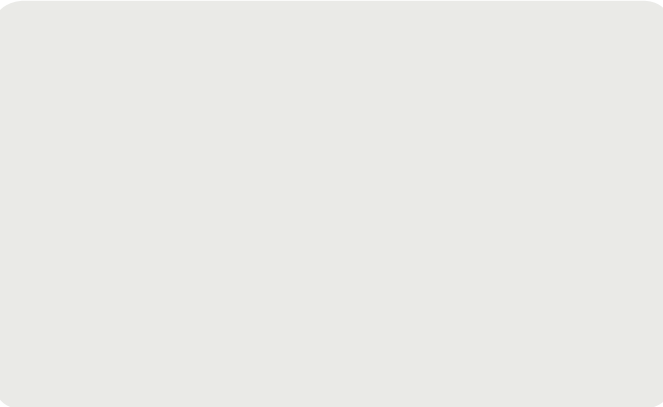## 2,310

Total Assets
3,505

BUSINESS AREAS

Aviation and Defense
- Development and production of military and commercial aircraft engines, and engine maintenance solutions
- Total ground equipment solutions, including artillery equipment
- Equipment and services applied to plants and ships for energy production, transportation, storage, and treatment
- Collaborative robot-related process automation solutions

Security
- Imaging technology-based video surveillance, access control, monitoring, and total security solutions

Industrial Machinery
- Development and supply of optimal surface mount technology (SMT) based on cutting-edge precision mechatronics technologies

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HCR-5 Collaborative Robot is flexible and safe
Realizing process automation across a wide variety of industries

Metal & Machine Processing

Plastics & Polymers

Automotive & Parts

Food

HCR-5

Pharmaceuticals & Chemicals

Electronic Equipment

Furniture & Equipment

Science & Research

Technical Specifications

Number of Axes	6
Payload	5 kg
Reach	915 mm
Rotation	±360°
Speed	180°/sec each joint, Tool: 1m/sec
Repeatability	±0.1 mm
Weight	20 kg
Footprint	Ø150 mm
Temp. Range	0~50°c

I/O Ports		Control-box (Ch.)	Tool conn. (Ch.)
I/O Ports	Digital in	16	4
	Digital out	16	4
	Analog in	2	2
	Analog out	2	-
	EtherCAT	1	1
I/O Power	24V 2A for control box & 12V or 24V 1.6A for tool		
Communication External	TCP/IP, EtherCAT, Modbus TCP, CC-link/Profinet/EnthernetIP(Optional)		
IP Classification	IP54		
Power Supply	100-240 VAC, 50-60 Hz		

Hanwha Techwin

HCR-5
EASY·FLEXIBLE·SAFE

iF DESIGN AWARD 2017

Hanwha Techwin

About Hanwha Group

OVERVIEW

Hanwha is a global group that is active in a broad range of businesses from manufacturing, construction, finance, and services to leisure industries. Since its founding in 1952, Hanwha has gained an excellent reputation, becoming a Fortune Global 500 company as South Korea's eighth-largest business conglomerate in terms of asset volume.

Building on its 56 affiliates and global network of 228 ventures, Hanwha provides differentiated products and services to its customers around the world. Hanwha has also established global top-tier affiliates by focusing its competencies on the areas of defense, chemicals, and advanced materials, while fostering relevant businesses as its future new growth engines.

FINANCIAL HIGHLIGHTS in 2015 (in USD Millions)

Total Sales
53,087

Total Assets
145,382

BUSINESS AREAS

Manufacturing & Construction
- Hanwha Corporation
- Hanwha Techwin
- Hanwha Systems
- Hanwha Defense
- Hanwha Chemical
- Hanwha General Chemical
- Hanwha Total Petrochemical
- Hanwha Engineering & Construction
- Hanwha Q CELLS
- Hanwha Advanced Materials
- Hanwha Energy
- Yeochun NCC
- Hanwha City Development

Finance
- Hanwha Life
- Hanwha General Insurance
- Hanwha Investment & Securities
- Hanwha Asset Management
- Hanwha Investment
- Hanwha Savings Bank

Services & Leisure
- Hanwha Hotels & Resorts
- Hanwha Galleria
- Hanwha Galleria Timeworld
- Hanwha 63 City
- Hanwha S&C
- Hanwha Station Development