

H5

Articulated 5 Axis Robot for



The First Time In Robot Industry!

Articulated 5 Axis Robot For Plastics Injection Molding Take Out Applications **H5**

Patent

✓ PERFECT FOR HEIGHT LIMITED APPLICATIONS

- By replacing the linear vertical axis with articulated axis the overall height of the robot is reduced.

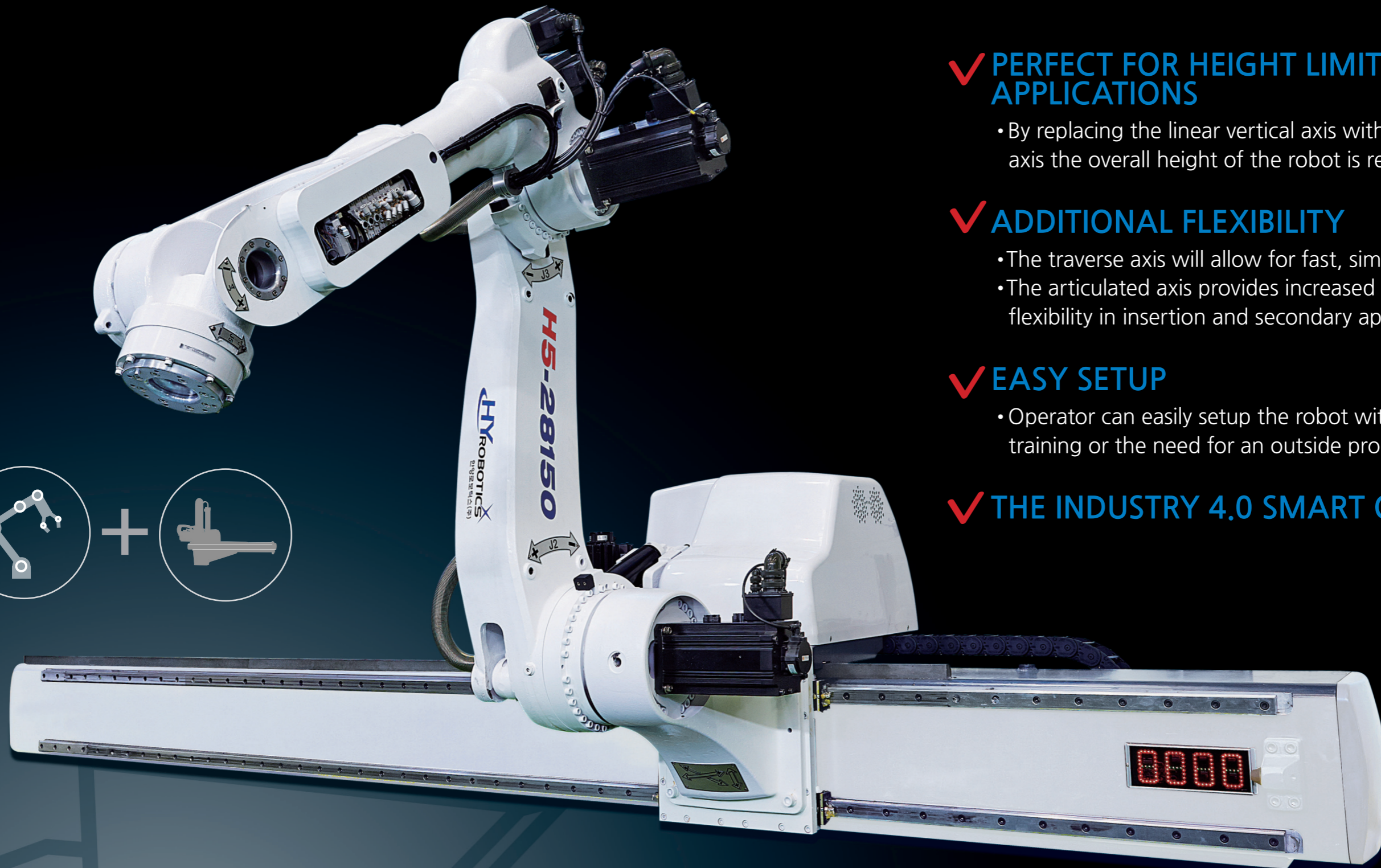
✓ ADDITIONAL FLEXIBILITY

- The traverse axis will allow for fast, simple parts removal.
- The articulated axis provides increased precision and flexibility in insertion and secondary applications.

✓ EASY SETUP

- Operator can easily setup the robot without extensive training or the need for an outside programmer.

✓ THE INDUSTRY 4.0 SMART OPTION



Easy Setup and Operation

Icon Based Touch Screen Controller

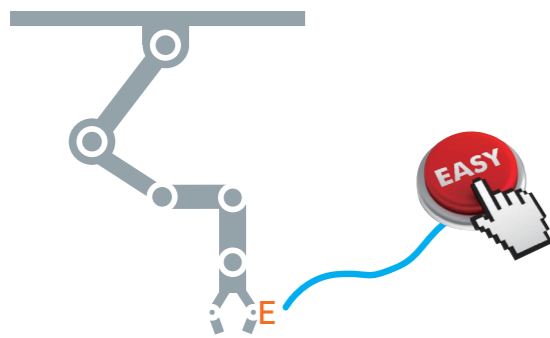
The easy to operate H5 multi-axis robot using HYRobotic's icon based controller makes programming simple and can be operated with minimal training.



Simple Operation

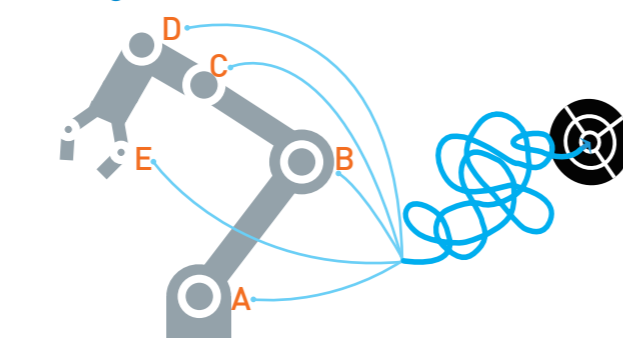
Existing multi-axis robots require extensive knowledge and training. Individual movements may require adjustments to individual joints to make the required movement. The H5 multi-axis robot requires simple one stage of operation.

H5 multi-axis robot



E Operation(1 Stage)

Existing multi-axis robot



A~E Operation(5 Stage)

Easy Programming

Easy to operate like a cartesian type robot for injection molding take out applications.

H5 multi-axis robot



Anyone can operate

Existing multi-axis robot

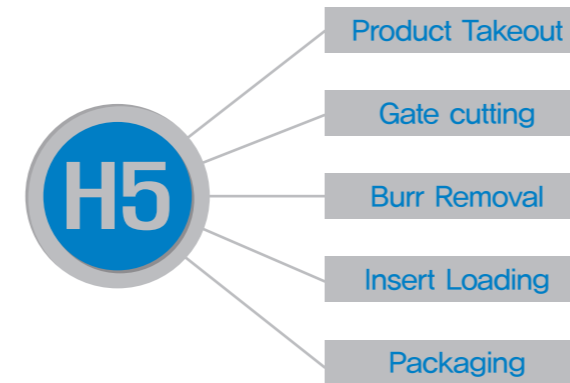


Need an expert's support

Technical Information

Multi Tasking & Diversity Of Operation

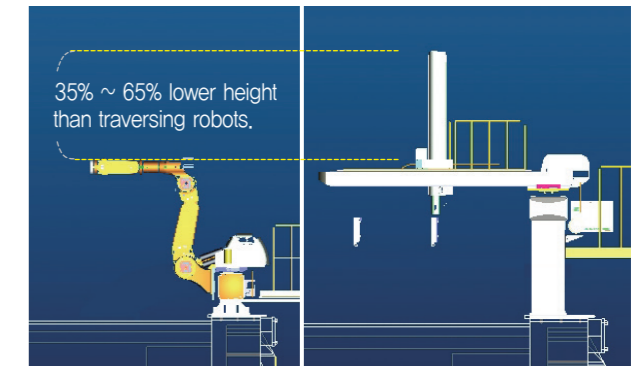
Enable diversity process for full automation with high-precision operation



H5	Existing multi-axis robot	Traverse type
Operator can easily program complicated motions	Extensive knowledge and training required to program complex motions	Easy to program pick and place applications. Precisions curvatures can be difficult.

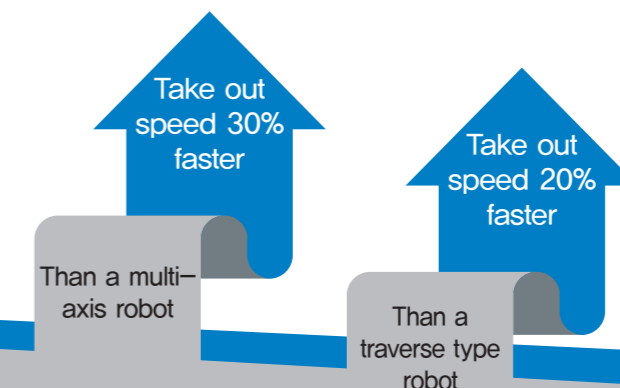
Advantages Over a Traversing Robot

Can perform many functions previously done by dedicated automation equipment with simpler solutions. Gate cutting, flaming, inspection, packaging, etc. Shorter overall height allows robots to be used that in the past were limited by ceiling height.

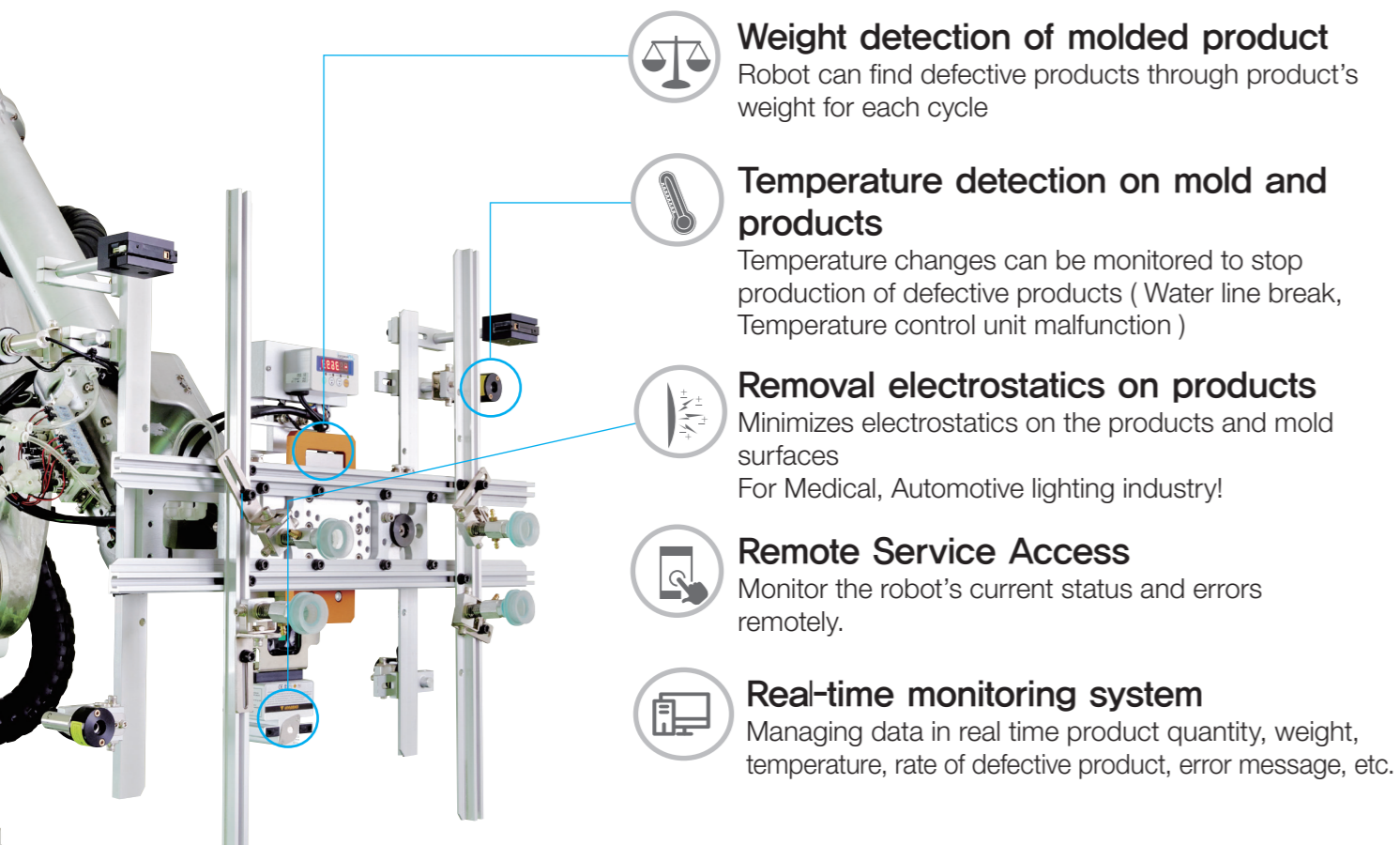


Advantages Over a Multi-axis Robot

Designed Specifically for Injection Molding Machines
Requires Less Floor Space and Guarding
Standard Interface module built in with Euromap 12 (32 pin) , Euromap 67 (50 pin)



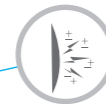
The Industry 4.0 Smart Option



Weight detection of molded product
Robot can find defective products through product's weight for each cycle



Temperature detection on mold and products
Temperature changes can be monitored to stop production of defective products (Water line break, Temperature control unit malfunction)



Removal electrostatics on products
Minimizes electrostatics on the products and mold surfaces
For Medical, Automotive lighting industry!



Remote Service Access
Monitor the robot's current status and errors remotely.



Real-time monitoring system
Managing data in real time product quantity, weight, temperature, rate of defective product, error message, etc.

Mobile phone(aap)
Hyrobot-n

Access with PC
www.hyrobot-.com



HYRobotics server computer / Customer's server computer

Wireless internet router



Managing data in real time product quantity, weight, temperature, rate of defective product, error message, etc.

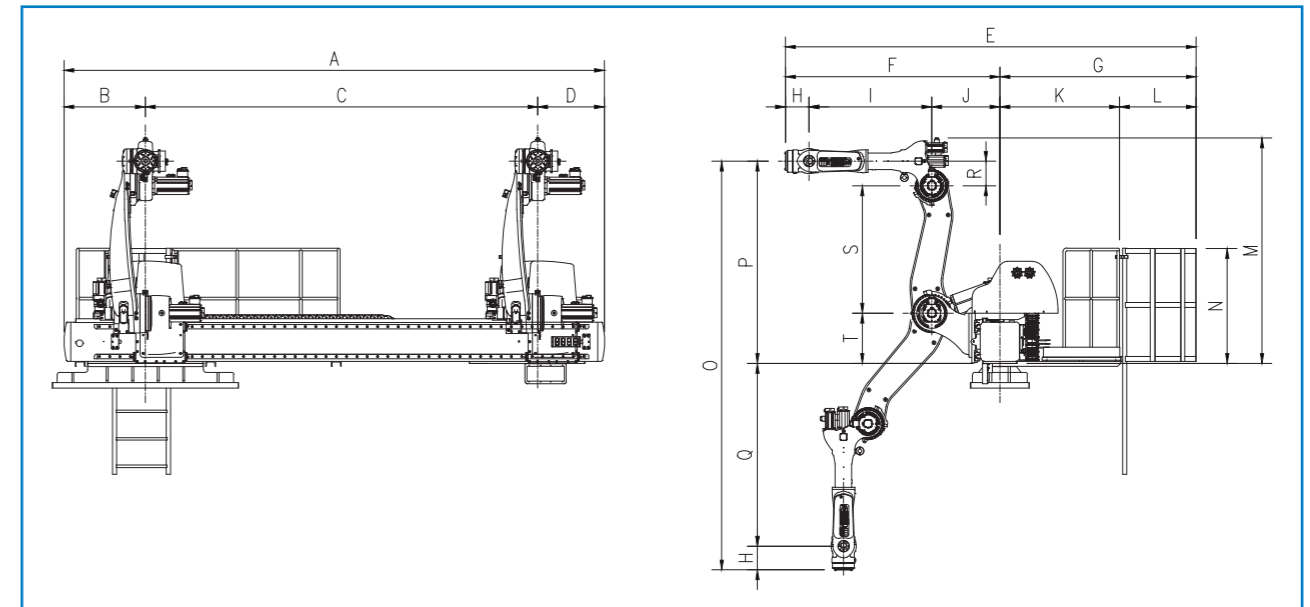
Wireless internet router



Technical Data

Dimension

Unit :mm



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
H5-1850	3,700	658	2,500	542	3,584	1,668	1,916	180	950	538	1,159	758	1,550	1,167	2,823	1,397	1,246	200	800	397
H5-2250	4,340	810	3,000	530	3,819	1,793	2,026	180	1,050	563	1,244	783	1,930	1,167	3,539	1,777	1,582	200	1,130	447
H5-2650	5,390	810	4,000	580	4,044	2,018	2,026	180	1,250	588	1,244	783	2,200	1,167	4,149	2,047	1,922	200	1,350	497
H5-2280	4,410	730	3,000	680	3,859	1,833	2,026	215	1,050	568	1,244	783	2,013	1,167	3,548	1,787	1,546	230	1,100	457
H5-2680	5,450	830	4,000	620	4,059	2,058	2,001	215	1,250	593	1,219	783	2,283	1,167	4,158	2,057	1,886	230	1,320	507
H5-3080	5,960	830	4,500	620	4,309	2,283	2,026	215	1,450	618	1,244	783	2,505	1,167	4,731	2,307	2,209	230	1,502	557
H5-26150	5,510	830	4,000	680	4,186	2,185	2,001	240	1,250	695	1,219	783	2,299	1,172	4,166	2,062	1,864	250	1,300	512

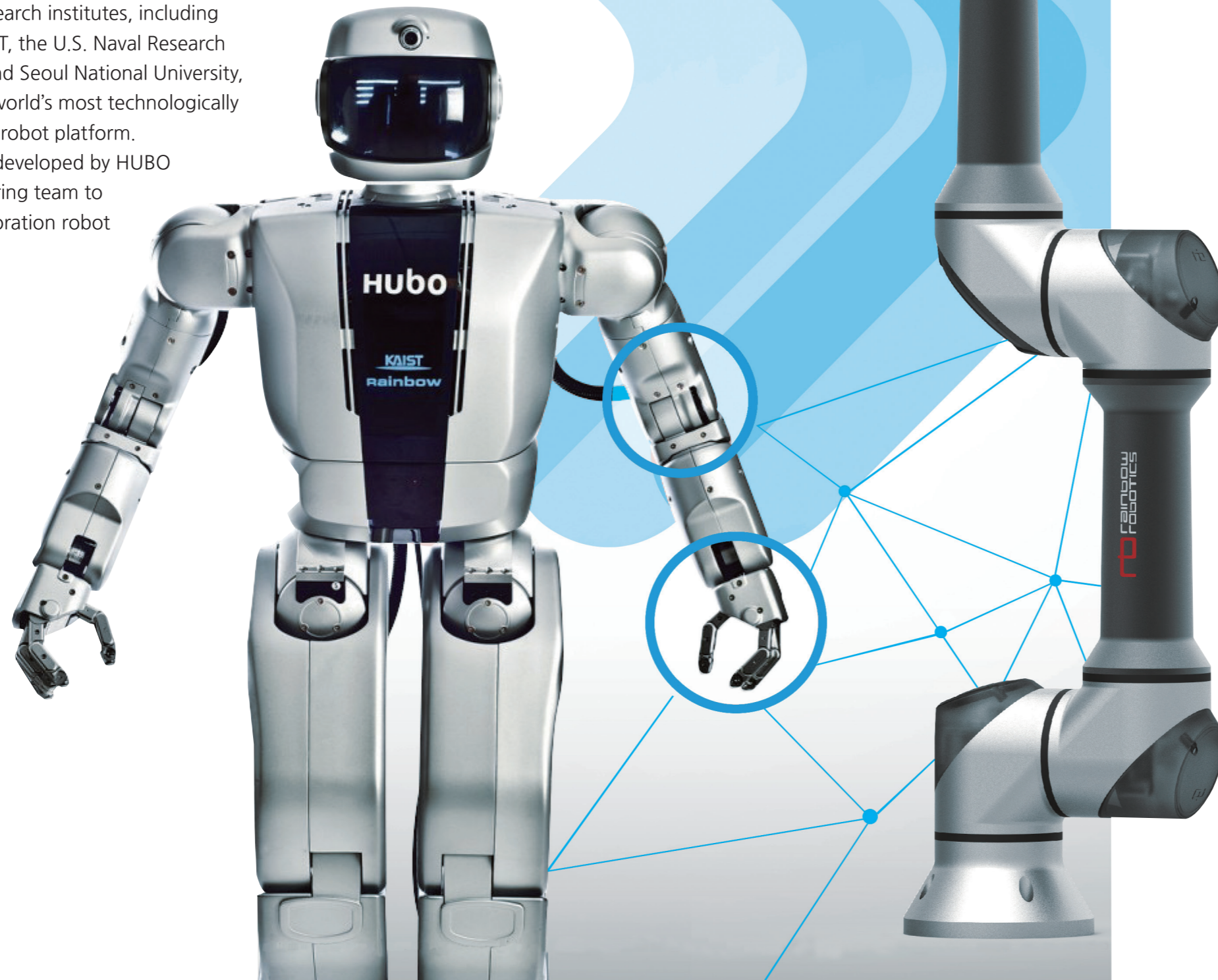
Technical Specification

Power	Motion Control	Control Method	Normal Pneumatic Pressure	Max. Pneumatic Pressure
3Phase AC220V(50/60Hz)	Servo Motor	Micro Computer	6 kgf/cm ²	8 kgf/cm ²

Model	Traverse Stroke (mm)			Reach (mm)	Max. Electric Consumption	Max. Handling Capacity (Chuck included)	I,M,M (Ton)
	Standard	L TYPE	LL TYPE				
H5-1850	2,500	3,000	3,500	1,750	9.25 kw	50 kgf	600~1,300
H5-2250	3,000	3,500	4,000	2,180	9.25 kw	50 kgf	1,000~2,000
H5-2650	4,000	4,500	5,000	2,600	10.25 kw	50 kgf	2,000~3,000
H5-2280	3,000	3,500	4,000	2,150	15.5 kw	80 kgf	1,000~2,000
H5-2680	4,000	4,500	5,000	2,570	15.5 kw	80 kgf	2,000~3,000
H5-3080	4,500	5,000	5,500	2,970	15.5 kw	80 kgf	2,500~3,500
H5-26150	4,000	4,500	5,000	2,550	23 kw	150 kgf	2,000~3,000

Collaborative Robot **RB5** with Hubo's Technology

HUBO is one of the most representative humanoid robots in South Korea. The development of humanoid robots started in 2002 from KAIST researchers, and have continuously improved performance such as HUBO (2004), Albert HUBO (2006), HUBO2 (2009), and DRG-HUBO (2015). HUBO has been sold to some of the world's leading research institutes, including Google, MIT, the U.S. Naval Research Institute, and Seoul National University, and is the world's most technologically recognized robot platform. RB5 robot developed by HUBO manufacturing team to lead collaboration robot industry.



Rainbow Robotics, which developed RB5, is a venture company founded by the KAIST Humanoid Robot HUBO team and owns all the technology and trademarks of HUBO.

✓ **Technical Information.**

- RB5 is a HUBO technology that represents South Korea. It's a six-axis collaboration robot.
- Best performance based on neat motor control technology

✓ **Price competition**

- Develops all the key parts of the robot, motors, sensors, controllers, and S/W, and provide them at a reasonable price.

✓ **Service competition**

- Implement the fastest and most accurate updates, from hardware to software, on customer requests, etc.

RB5 with a person, with a worker



■ Safe

The collision detection system minimizes accidents and injuries during work to provide a safe working environment for the operator.

■ Easy to use

With an intuitive graphical UI configuration, RB5 robot operation is easy for anyone and not just experts.

■ Compact

RB5 can be applied to any production line, regardless of its narrow footprint. It can be installed in any space, so it's easy to use it.

■ Technical Specification

Payload amount	5kg / 11lbs
Reach range	850mm / 33.5 in
Degree of freedom	6 rotations joint
repetition precision	+ 0.1mm
Installation area	0.173m
Material	aluminium, plastics, steel
Tool connector type	M10 12-pin
Tool I/O power supply	12V/24V continuity 2A
Cable length(robot arm)	5m / 197in
weight	21kg / 46.3 lbs
IP	IP54

Axis operation	Range	Maximum speed
base	± 360°	±180°/ sec
shoulder	± 360°	±180°/ sec
elbow	± 165°	±180°/ sec
Wrist 1	± 360°	±180°/ sec
Wrist 2	± 360°	±180°/ sec
Wrist 3	± 360°	±180°/ sec
Standard TCP speed	1m/12V/24V continuity	

controller

I/O port	Digital input 16 Digital output 16 Analog input 4 Analog output 4 RS422/ RS485 Ethernet
power	100-240VAC, 50-60Hz
size	435 x 500 x 132.5 mm
weight	6.4kg
material	steel

Rainbow Robotics' cooperative robot RB5 is the best collaboration solution for maximizing production efficiency without the need of safe cage. RB5 is specialized for repetitive tasks in confined spaces