Elfin Series
Collaborative Robot

HAN'S ROBOT

www.hansrobot.com

About Han's Robot

*Wholly-owned subsidiary invested by Han's Laser Technology Group (stock name: Han's Laser, stock code: 002008);
*Established on the basis of robot division from Han's Motor,Han’s Robot has more than ten years of experience in motors, servo drives and motion control;
*Focus on the development, promotion and application of intelligent robots in industrial, medical, logistics, service and other fields.

Han’s Robot SEARCH

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Elfin10

Maximum payload 10kg
Work radius 1000mm

Elfin5

Maximum payload 5kg
Work radius 800mm

Elfin3

Maximum payload 3kg
Work radius 590mm

Technical information

	Elfin3	Elfin5	Elfin10
Weight	17kg	23kg	40kg
Payload	3kg	5kg	10kg
Reach	590mm	800mm	1000mm
Joint range	+/-360°	+/-360°	+/-360°
Joint speed	90°/s	90°/s	90°/s
Tool speed	1m/s	1m/s	1m/s
Repeatability	+/-0.05mm	+/-0.05mm	+/-0.05mm
I/O port	Digital input:4 Digital output:4 Analog input:2	Digital input:4 Digital output:4 Analog input:2	Digital input:4 Digital output:4 Analog input:2
I/O source	24V 2A	24V 2A	24V 2A
Power input	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz
Working temperature	0-50°C	0-50°C	0-50°C
IP class	IP54	IP54	IP54
Main material	Aluminum alloy	Aluminum alloy	Aluminum alloy

Control box

IP Classification	IP20
ISO Cleanroom Classification	6
Noise	<65db (A)
I/O ports	Digital input 16 Digital output 16 Analog input 2 Analog output 2
I/O power supply	24V 2A
Communication	TCP/IP、ModBusTCP
Power source	100-240VAC,50-60Hz
Control box size	436mm*432mm*190mm
Material	Steel
Weight	12.5kg

Teach pendant

IP Classification	IP20
Material	PP
Weight	2kg
Cable length	5m

Safer work

With Elfin robots, there is no need to pay extra for safe operation the same as traditional industrial robots.The robots have high collaborative performance and can perform a protective stop immediately when they encounter resistance, ensuring the safety among co-worker, workpieces, and production equipment.

More flexible deployment

Elfin robots can be mounted at any angle and installed anywhere to minimize the impact on the production lines. Redeployment requires very short time and is very suitable for small batches, customized and short-cycle production,which is the best choice for automation transformation.

Easier operation

Elfin robots can be easily teached by moving the end of the arm to the desired position or desired trajectory,which greatly saves the programming time.
10 minutes is absolutely enough for building one simple pick and place program.

Highly integrated joint modules

The joint module is highly integrated with one drive controlling two motive joints.
High torque and low cogging motors provide the best performance and stability.

Fast, stable EtherCAT bus communication

The controller and robot joint adopt industrial EtherCAT communication, which enables the system to have excellent control performance and strong anti-interference ability.

ROS Support

Open source ROS interface allows users to control robot joints in real-time via EtherCAT under ROS. With the ROS platform, the robot's scalability is greatly improved, and it is not necessary to rely on the control box to control the robot.

Industry applications

Make the production line uninterrupted;
Increase productivity;
Employees do not need to do repetitive work and avoid fatigue and production accidents;
High accuracy and consistency;
Reduce error.

Gluing

Machine tending

Pick and place

Quality inspection

Welding

Spraying

Medical industry applications

Surgical Robot

A single controller controls multiple Elfin robots. High accuracy and stability can meet the demands of medical surgery applications.

Remote Diagnostic Ultrasound System

Based on EtherCAT communication, excellent control performance and higher communication rate make the precise remote control possible.

More applications

Service Industry

The features of security, ease of use, and intelligence enable Elfin to realize its application in the service industry and provide more possibilities for future service.

Education

Supports ROS and provides numerous functional interfaces;Supports two programming languages, C++ and Python, which facilitate secondary development and contribute to robot research and teaching.

Research

Relieves researchers from repetitive work and improves the objectivity of analysis and testing process.

Customer Service

Hardware maintenance support
Software upgrade
Data service
Equipment debugging training
Equipment maintenance
Technical Support

HAN'S ROBOT

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