

Elfin-Pro

Collaborative Robot

Elfin-Pro collaborative robot is developed on the basis of elfin collaborative robot. It not only has all the advantages of elfin collaborative robot such as a variety models, easy deployment, high precision, high flexibility, double-joint module design and modular design, but also has upgraded the product capability through the integration of cutting-edge AI technology, end force control integration, end vision integration. In addition, it adopts a new elegant and practical surface treatment process which is more stable and reliable. With all these advantages, Elfin-Pro offers a better human-robot collaboration experience and could support wider application scenarios.



Elfin-Pro

Collaborative Robot

E03-Pro
590mm
3KG



E05-Pro
800mm
5KG



E05L-Pro
950mm
3.5KG



E10-Pro
1000mm
10KG



E10L-Pro
1300mm
8KG





Force Control Integration

- a. Internal wiring with better anti-interference ability
- b. Constant force control for perfectly trajectory fit
- c. Fast programming
- d. Soft control with smooth free-drive teaching
- e. Force exploration suitable to intelligent assembly which makes the small batches and flexible production of multiple varieties to be possible.



Camera System

- a. Internal wiring enables the robot to have better anti-interference ability and supports fast deployment
- b. With visual positioning, visual classification recognition, the object detection, QR code recognition AI application capabilities
- c. Han's Robot's self-developed hardware and software which is easy to operate and pretty interactive and scalable.



Internal Wiring

Han's robot is connected to the force control and AI vision system through internal wiring, which reduces the number and length of external cables, simplifies the wiring process, and avoids problems of tangled wires and signal interference.



Higher Protection, more applications

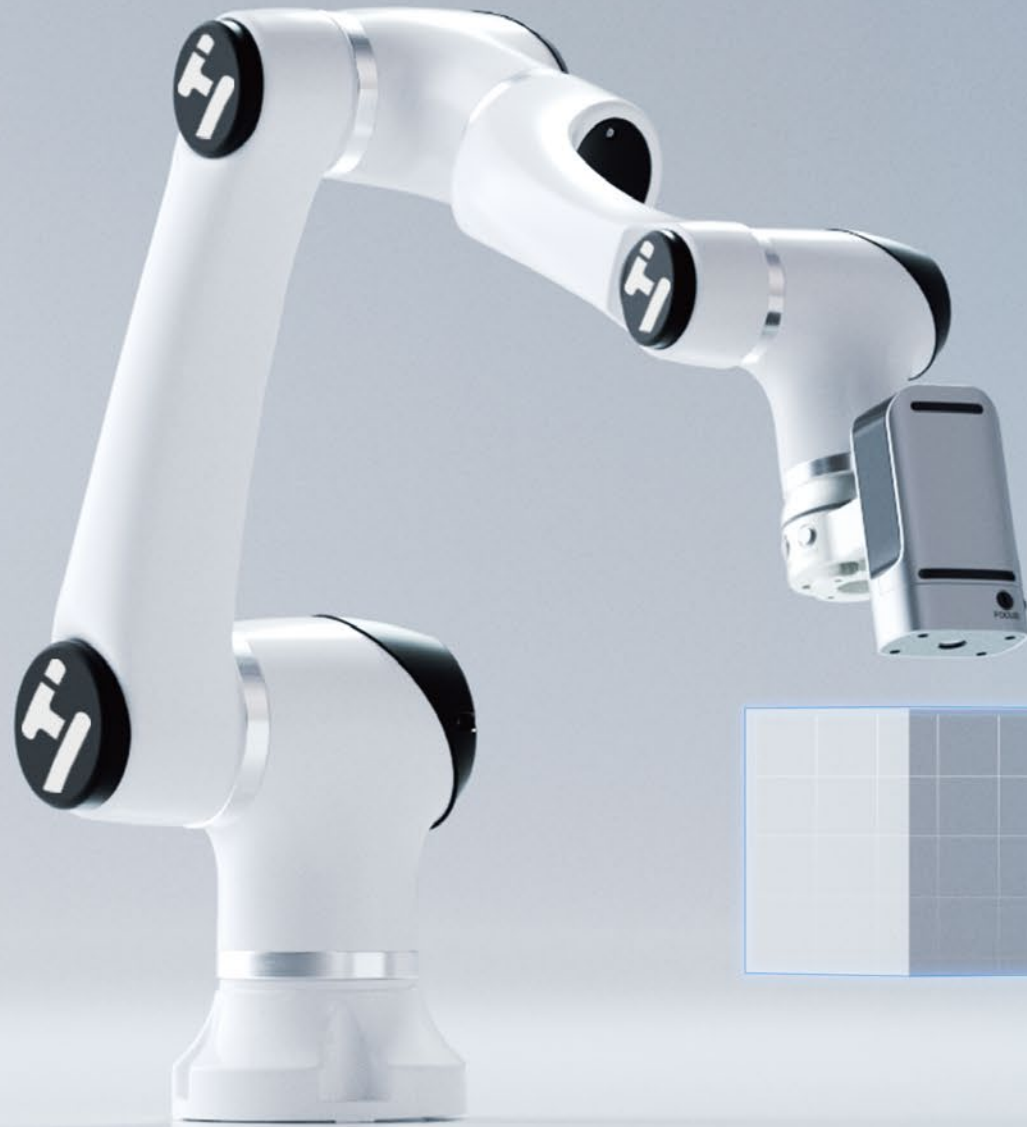
With IP66 protection, E PRO robot can be adapted to different production environments which further extending the range of applications.



High Sensitivity, much safer

E PRO robot realizes 1000Hz real-time control refresh frequency, which can achieve the industry-leading trajectory precision control, stable and reliable performance, faster response and safer human-machine collaboration.



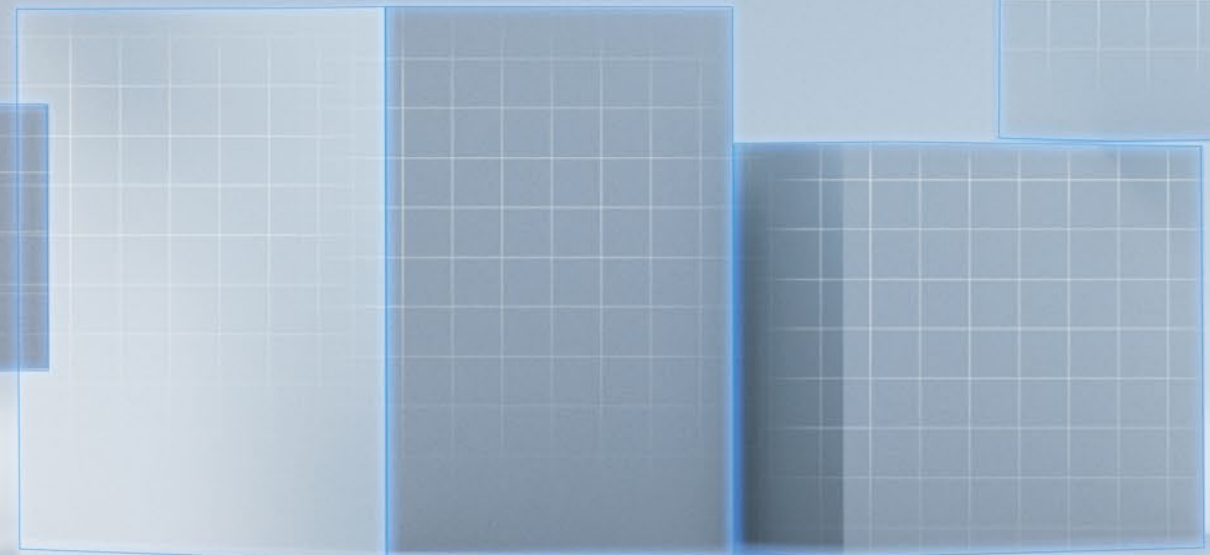


Industry

Automotive Consumer Renewable energy Medical experiment
Physiotherapy Precision machining

Application

Welding Massage Polishing
Assembly Screen inspection








Tech Specs

Model	Weight	Payload	Reach	Power consumption	Joint range	Joint speed	Tool speed	Repeatability	Degree of freedom	End I/O port	Control box I/O port	I/O Source	Communication	Programming	IP classification	Collaborative operation	Main material	Working temperature	Power input	Cable
E03-Pro	18kg	3kg	590mm	100W typical application		J1-J4 180°/S J5-J6 200°/S	2m/s	±0.02mm												
E05-Pro	25kg	5kg	800mm	180W typical application		J1-J4 180°/S J5-J6 200°/S	3m/s	±0.02mm												
E05L-Pro	26kg	3.5kg	950mm	180W typical application	±360°	J1-J4 180°/S J5-J6 200°/S	3m/s	±0.02mm	6	Digital input: 3 Digital output: 3 Analog input: 2	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2	24V 2A	TCP/IP ModbusTCP Profinet (external conversion) Ethernet/IP (external conversion)	Graphical programming remote call interface	IP54	10 advanced security configuration functions	Aluminum alloy	0-50°C	200-240V AC, 50-60Hz	Cable to the control box: 5m cable to the teach pendant: 5m
E10-Pro	43kg	10kg	1000mm	350W typical application		J1-J2 100°/S J3-J4 150°/S J5-J6 180°/S	2m/s	±0.03mm												
E10L-Pro	45kg	8kg	1300mm	350W typical application		J1-J2 100°/S J3-J4 150°/S J5-J6 180°/S	2.5m/s	±0.03mm												

Force control parameters (optional)		Vision parameters (optional)	
Force control, tool flange	Force x-y-z, Torque x-y-z	Focus height	100mm~500mm
Range	200N, 10Nm	Application accuracy	±0.2mm
Precision	2N, 0.1Nm	Hardware size	93.78mm x 54.45mm x 146.24mm
Accuracy	4N, 0.2Nm	Camera pixels	6 million pixels
IP classification	IP54orIP66	External vision	Laser sensor or RGBD camera
		Communication interface	WiFi, network port
		IP classification	IP54
		Optional lens	8mm or 16mm

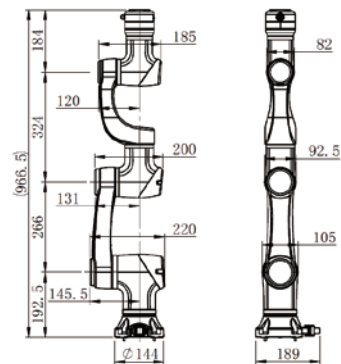
Product Configuration

Configuration instructions	Robot	Control Box	Teach Pendant	IP Classification
Force control integration		Standard control box	Standard teach pendant	IP54 or IP66
Camera System integration (Standard control box)		Standard control box External WIFI (Optional)	Standard teach pendant	IP54
Camera System integration (Mini control box)		Standard control box Mini control box	Standard teach pendant	IP54
Control Box		Mini Control Box (Optional)		Teach Pendant
Dimensions	445.2mm x 318.8mm x (360+176)mm	Dimensions	323x221x80(mm)	Dimensions
Stand Height	176mm	Power Input	DC30~60V	327 mm x 230 mm x (45+22) mm
Weight	18.5kg	I/O Source	DC24V	Weight
Power Output	48V DC	I/O Port	Inputs 8 , Outputs 8	2.7kg (Include Cable)
Working Temperature	0~50°C	IP Classification	IP20	Display
Working Humidity	90% Relative Humidity (non-condensing)	Communication	TCP/IP Modbus	10.4"
IP Classification	IP20	Communication frequency	250Hz	Resolution
Communication Frequency	1000Hz			1024 x 800
				E-stop Button
				1
				IP Classification
				IP54

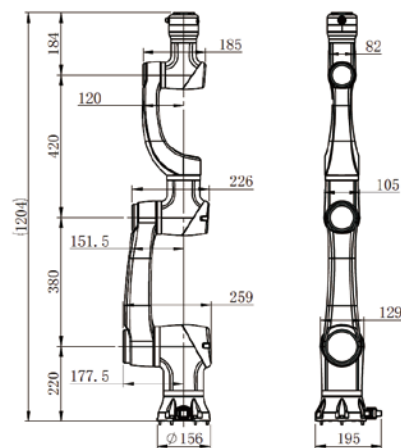
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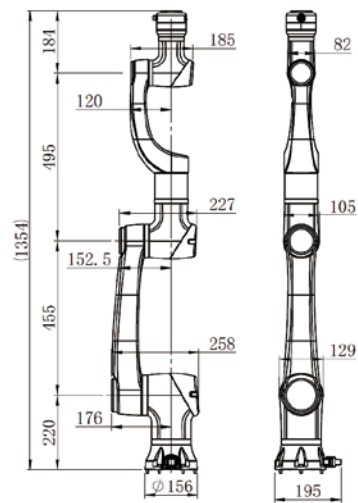
Drawing (Force control)



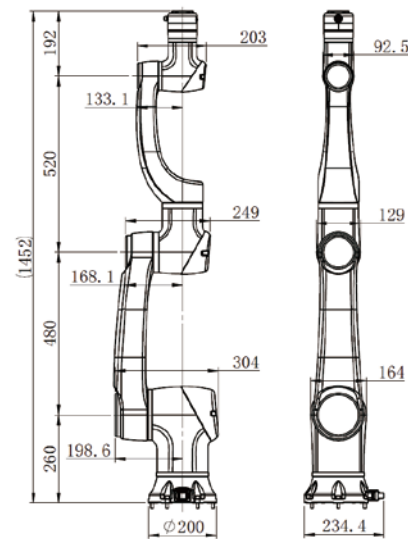
E03-Pro



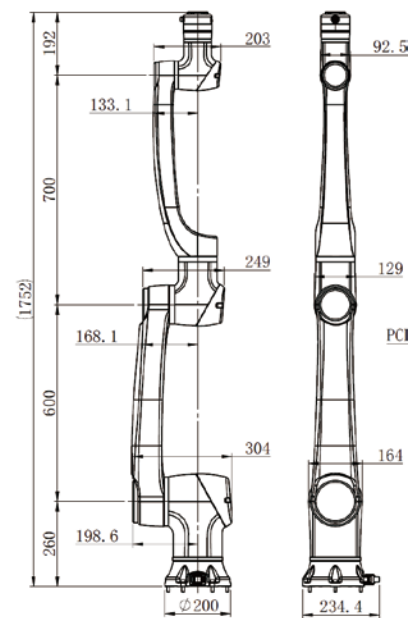
E05-Pro



E05L-Pro



E10-Pro



E10L-Pro



Serve Humanity With Robot Technology

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