



Elfin Collaborative Robot

The Elfin collaborative robot can be used in automated integrated production lines, assembly, picking, welding, grinding, spraying and other applications, and has been exported to more than 100 countries and regions. It adopts a unique double-joint module design, where one motion module contains two joints to form a unique kinematic structure, which not only differs from most collaborative robots on the market, but also provides more flexibility when working.



First dual-joint module design in China

The unique kinematic design enables the robot to have high flexibility. The highly integrated modular design minimizes the arm weight.



Highly flexible 6-DOF collaborative robot

The collaborative robot with 4/6-axis coaxial structure has almost reached the flexibility of 7-DOF robots



Optimized singularity

The unique arm design not only avoids the product homogeneity but also reduces the singularity



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Industries

Electronics • Automotive • Metal processing • Semiconductor • Education Watchmaking • Medical technology Pharmaceutical

Applications

Loading and unloading • Assembly • Picking and placing • Welding • Palletizing Dispensing • Inspecting

Technical specifications

Model	E03	E05	E05-L	E10	E10-L	E15
Weight	18kg	25kg	26kg	43kg	45kg	60kg
Payload	3kg	5kg	3,5kg	10kg	8kg	15kg
Reach	590mm	800mm	950mm	1000mm	1300mm	1300mm
Power consumption	100W typical application	180W typical application	180W typical application	350W typical application	350W typical application	600W typical application
Joint range	±360°					
Joint speed	J1-J4 180°/s J5-J6 200°/s	J1-J4 180°/s J5-J6 200°/s	J1-J4 180°/s J5-J6 200°/s	J1-J2 100°/s J3-J4 150°/s J5-J6 180°/s	J1-J2 100°/s J3-J4 150°/s J5-J6 180°/s	J1-J2 80°/s J3-J4 120°/s J5-J6 150°/s
Tool speed	2m/s					
Repeatability	±0.02mm	±0.02mm	±0.02mm	±0.03mm	±0.03mm	±0.05mm
Degree of freedom	6					
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2					
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2					
I/O Source	24V 2A					
Communication	TCP/IP and Modbus					
Programming	Graphical programming remote call interface					
IP classification	IP54					
Collaborative operation	10 advanced security configuration functions					
Main material	Aluminum alloy					
Working temperature	0-50°C					
Power input	200-240V AC, 50-60Hz					
Cable	Cable to the control box: 5m cable to the teach pendant: 5m					



Control box		Mini Control Box (Optional)		Teach Pendant	
Dimensions	445.2x 318.8 x (360+176)mm	Dimensions	323×221×80mm	Dimensions	327x 230x (45+22)mm
Stand Height	176mm	Power input	DC30~60V	Weight	2.7kg (Include Cable)
Weight	18,5kg	I/O Source	DC24V	Display	10.4"
Power Output	48V DC	I/O Port	Inputs 8 , Outputs 8	Resolution	1024 x 800
Working Temperature	0~50°C	IP Classification	IP20	E-stop Button	1
Working Humidity	90% Relative Humidity (non-condensing)	Communication	TCP/IP Modbus	IP Classification	IP54
IP Classification	IP20				