

IP1000 Frequently Asked Questions (Q&A)

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1. Product Specifications

1.1. What is the maximum payload of the IP1000 4-axis robot?

A: Rated max payload is 1000g including end-effector. Total gripper + workpiece mass must be within 1000g.

1.2. What are the robot working radius and repeat positioning accuracy?

A: Max working radius is 490mm. Repeat accuracy is +/-0.05mm, measured under constant temp, rated payload, standard mounting.

1.3. Which coordinate systems does IP1000 support?



A: Supports joint, world, and tool coordinate systems, switchable in the teach pendant.

2. Safety Functions

2.1. Which safety functions does IP1000 support? (E-stop, safety door interlock, collision detection)

设置/IO/安全设置					
机器人1					
功能	使能	DIN序号	参数	快速停止时间	注释
紧急停止1	☐	无	0	1	单位/ms(50-200)
紧急停止2		无	0	1	
安全光幕1	☐	无	0	1	无
安全光幕2		无	0	1	无
屏蔽紧急停止1	☐		屏蔽时间	30	单位/s
屏蔽紧急停止2	☐				

A: Supports E-stop and safety door interlock via IO safety settings. Collision stop via motor overload protection torque settings.

3. Communication Configuration

3.1. Which communication protocols does IP1000 support for PLC/peripheral communication?



A: Standard config supports Modbus TCP, EtherNet/IP, TCP/IP, FTP, FINS/TCP, OPC UA. Hardware includes industrial Ethernet and RS485. Note: some protocols may require specific authorization.

4. Operation and Programming

4.1. How to perform robot homing?

How to perform robot homing?

A: Homing moves all axes to mechanical zero. Steps: 1. Robot in teach mode, powered on. 2. Monitoring screen, select Homing. 3. Press Homing key, J1-J4 return together. Safety: no obstacles in motion range.

4.2. How to move precisely in a straight line during teach programming?

A: Select MovL (Linear Motion) from teach pendant. With enable, move end-effector to target at low speed and record. System auto-plans linear trajectory.

4.3. What is the administrator password for the teach pendant?



A: Administrator password is: 123456

5. Process Package Functions

5.1. Which process packages does IP1000 currently support?



A: Supports palletizing, 2D vision, conveyor tracking. Covers common handling, sorting, dynamic picking. Refer to corresponding process package manual for details.

6. Interface Description

6.1. What interfaces does the robot provide? What devices can be connected?

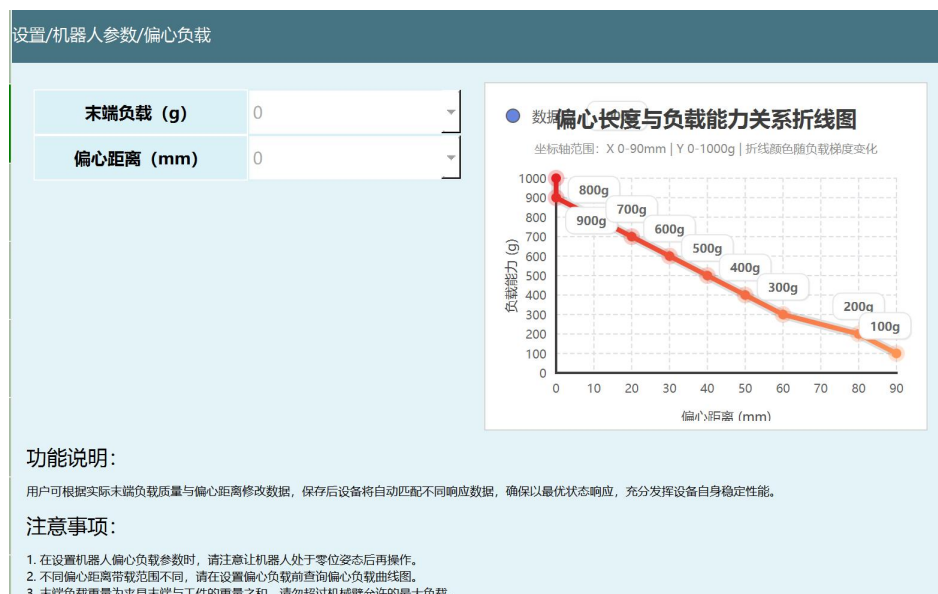
A: Controller provides: 16ch digital I/O each for sensors/indicators/valves; RS485 + encoder (ABZ) for tracking; Two Ethernet ports: LAN1 for axis expansion, LAN2 for PC debugging.

7. Troubleshooting

7.1. Teach pendant shows Robot 1 Servo Mapping Error. What does it mean and how to resolve?

A: Controller failed to identify servo drive mapping during bus scan. Software fault from config loss, firmware mismatch, or bus interruption. Resolution: 1. Cold restart: disconnect power 10s. 2. If persists, export log and contact support.

7.2. Why does the robot end flange vibrate? How to fix it?



A: Caused by mismatch between set load weight and actual load. Solution: Robot Parameters > Eccentric Load > set actual mass (gripper + workpiece), save and restart.
Tip: check load limit or gripper mounting if vibration persists.

7.3. Robot indicates axis 4 exceeds limit range. How to resolve?



A: Axis 4 has no brake, can be rotated when off. If exceeds software limits, alarm on repower. Resolution: Monitoring > Shortcut Keys > Axis 4 Homing, press enable, click to return to zero.

7.4. Robot shows Servo 1-4 Not Found on startup. Cause and solution?

Robot shows Servo 1-4 Not Found on startup. Cause and solution?

A: IO board 1 output 1-1 (soft E-stop) is off by default, preventing servo power-on. Solution: IO screen > turn on IO board 1 signal 1-1, clear alarm. Normal power-on procedure, not hardware fault.