

# **Dobot User Manual**

V2.0

Shenzhen Yuejiang Technology Co., Ltd

#### Let's Dobot

Dobot 2.0 is a new generation of desktop robotic arm. It has friendly unibody design, better performance and more features, while maintaining a price of a desktop level product. With continuous development and full optimization, it's a powerful helper for your home. Rich extension ports, help you make the most out of the robot. Brand new professional controlling software brings you the engaging experience never had before, and makes you feel the endless possibilities of future technology.



#### **Robot Arm**

Joint1 Joint2 Joint3

joint4



## **Dobot Integrated Controller**

The Dobot controller is specifically designed for Dobot Application. The innovative FPGA solution significantly increases the stability of stepper driving and gives the flexibility to STM32 for complex tasks.





Connection interface (for external box with Bluetooth module)



## **Quick Start Guide**

1. To control through USB

step1: Connect USB port with PC and start power; step2: Open PC software, click 'connect' to access to Dobot;

step3: After a successful connection, Dobot can realize lots of

functions through jog mode or liner mode , such as

teach & playback, writing, drawing, laser engraving and so on.

- 2. To control through Bluetooth module(optional)
  - step1: Insert Bluetooth module
    - into corresponding interface of controller;
  - step2: Start power and reset Dobot;
  - step3: Open mobile APP, search Bluetooth port and connect, and here password is 0000 or 1234;
  - step4: After a successful connection, Dobot can be controlled by APP, like the function of teach & playback.

Note: The external box with Bluetooth module is an optional accessory. Through the Bluetooth connection interface, the external box can connect to the Dobot 2.0 via the cable.



USB Port

DOBOT	Peripheral Interface		
Reset Køy	Communication Interface	USB	Powe
00	00000	Ð	Ð

Bluetooth Interface

### **State definition**

	Blue	Light Gradually eliminate gradually	Connected with USB
State definition		On	Execute a command
		Flash	Ready to be connected
		Light 2 sec and eliminate 0.5 sec	Task suspended
	Green		Connected with
		Light Gradually eliminate gradually	communication port
		On	Offline
		Flash	
		Light 2 sec and eliminate 0.5 sec	Task suspended
	Orange		Reset software when got an
		On	unexpected interrupt or halt
		Light Gradually eliminate gradually	Be at a limited position
		Flash	
		Light 2sec and eliminate 0.5 sec	
	Red	On	Error: Fail to return to zero
		Light Gradually eliminate gradually	
			Error: Reading error of angle
		Flash	sensor
		Long light and short eliminate	Encoder error of base



Dobot will return to zero automatically when start, so please put it in a safe place to prevent any accidents!

## Support

- 1. More information available on our official website dobot.cc.
- 2. Software and detailed instructions can be found on dobot.cc/download.
- 3. Share your joy and creative ideas on forum.dobot.cc.
- 4. If you have further questions, please send email to support@dobot.cc.

# **Specification**



lumber of Axis	4	
Veight	4kg	
Dimension base	158mm * 158mm	
ayload	500g	
osition repeatability	0.2mm	
/laterial	Aluminum Alloy 6061	
Controller	Dobot Integrated Controller	
Communication	UART/Bluetooth connection interface	
ower Supply	12V/5A DC	
oint	Working Range	
oint 1 base	+135° to -135°	
oint 2 rear arm	+85° to -5°	
oint 3 forearm	+95° to -10°	
oint 4 rotation servo	+90° to -90°	

#### Statement

Changes or modifications not expressly approved by the party responsible for compliance could v oid the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two con ditions: (1) this device may not cause harmful interference, and (2) this device must accept any in terference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, p ursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection a gainst harmful interference in a residential installation. This equipment generates, uses and can r adiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that in terference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the int erference by one or more of the following measures:

- -- Reorient or relocate the receiving antenna.
- -- Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is con nected.

-- Consult the dealer or an experienced radio/TV technician for help.



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