Robot Hand Software Instructions

文档版本 V1.1.1.0 软件版本 V1.1.1.0 协议 RS485

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1The installation and operation of the upper computer

Ensure supply voltage 7V, current 3A. Users can send the executable file to the desktop for subsequent operations

2Functions Of The System

2.1System Interface

The software is mainly composed of six parts, 1. Menu bar, 2. Communication setting bar, 3. Control hand and setting parameters, 4. Real-time curve motion chart. 5. Set internal

parameters.



2.2Internal Status Settings interface

Click the "Stop painting" button, and then click the "Parameter setting" button to switch back and forth.

See Section 4 for details.

The	6	The upper joint of the thumb
Meaning	5	The lower joint of the thumb
Of Each	4	Index finger
Joint	3	Middle finger
2		Ring finger
	1	Little finger



2.3 Menu Bar Interface

2.3.1 About

Click the "About" button to view the version number.



2.3.2 Help Manual

Check the user manual.



2.4Chinese-English version

Help Language (语言)																	
Commun Chinese(中文)		A11	0		Locat	ion	$\hat{}$	Accel	leration	\$	Spee	d	\$	Torq	ue	٥	Contin…
Eniglish(英文) Baudr		Thumb1	0			0	+	-	150	+	_	2,000	+	-	1,000	+	- 50 +
Databit:	13	Thumb2	0			0	+	-	150	+	-	2,000	+	-	1, 000	+	手指
Stopbit:	<u>j</u>	ForeFinger	0			0	+	-	150	+	-	2, 000	+	-	1,000	+	
Checkbit:	ril,	MiddleFi	0			0	+	-	150	+	-	2, 000	+	-	1,000	+	Send
search Open	í,	RingFinger	0			0	+	-	150	+	-	2,000	+	-	1,000	+	
	۵ĨL,	LittleFi	0	-		0	+	—	150	+	-	2, 000	+	-	1, <mark>00</mark> 0	+	Empty
Power Debug	Str	retchMove	GripMove	ForeMove		Midd	leMove		RingM	ove		LittleMc	ive		OkMove		
			Thur bi	Thurld Pr		Tove	lode	- Pi-	-v:		1.7:						StopDraw
	12	0 -	u Inumbi	🖬 Intunoz - 🖬 Po:	eringer	u mi di	mer inger	u ninș	sı inger	.	.eringer						ClearLines
	10 9 (•) 9 18 19 19 11 1 1 -1	16 11 17 12 12 13 13 19 14 10 0 0 53 105	158 211 26	53 316 34	58 42	1 47	4 526	579	632	684	737	789	842	895	947 10	000	

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3 Basic operation

3.1 Open the serial port

Make sure to turn on the power, click the "search" button, the port number found will be added to the list in the main window, select the actual connected serial port, click open.



3.2 Six Movement Modes And Curve Display

Click the button in the box to move, and the curve will be drawn automatically. Click the "Stop Drawing" button to stop the curve. The horizontal coordinate indicates the time of drawing, and the vertical coordinate indicates the angular value of the movement of the six joints.



3.3Set Parameters

The operation process is shown in the following figure: The user can select the joint, parameter type and parameter value that need to be set to configure the manipulator.

Communication Settings		Loci	ation	\$	Acceleration 🕻	> s	peed	٥	Torq	ue	٥	Contin…
Baudrate	7 Thumb1	-	0	+	Acceleration	-	- 2000	+	-	1000	+	- 50 +
Databit:	Click the joint	-	Choo	+ e pai	50 Tameter and	value	2000	+	- d to d	1000	+	Finger 🗘
Stopbit:	Ayou wanted	-	0	+	100	-	- 2000	+	-	1000	+	
Checkbit:	MiddleFim	-	0	+	150	<u> 11</u>	- 2000	+	-	1000	+	4 send
* 🖓	RingFinger	-	0	+	200	-	- 2000	+	-	1000	+	
search. Close	LittleFi	-	0	+	- 150	+ -	- 2000	+	-	1000	+	Empty
Debug	StretchMove GripMove ForeMove		Midd	eMove	RingMove		LittleM	ove		0kMove		
	FF FF 03 B1 02 00 00 00 00 00 00 00 00 00 00 FF FF											
			Low									
	Thumb1 B Thumb2 B F.	oreFing	er Mid	∎ode leFinger	BRingFinger BI	littleFin	ger	1, 9	stop	draw o	urve	StartDraw

3.3.1 Location Setting



Check the joint to be set and set the Angle value, usually the Angle of the joint is from 0-90

3.3.2 Acceleration Setting

Select the joint to be set, the acceleration includes 1-200, and the default is 150 after power-on.

Help Language (语言)					<u>+</u>	1						
Communication Settings		-0	Location	\$	Acceleration	Spe	ed	\$	Toro	lne	\$	Contin…
Port: COM4	Thumb1	— <u> </u>	- 29	+	Acceleration	-	2000	+	_	1000	+	- 50 +
Baudrate: 115200Kbps	Thumb2		- 58	+	50	_	2000	+	-	1000	+	Accelera 🗘
Databit: 8			- 56	+	100	-	2000	+	_	1000	+	
Stopbit: 1			- 20		150		2000	-		1000		Send
Checkbit: π	MiddleFi		- 25	T	200		2000	T		1000	Ŧ	
search Close	RingFinger	-0	- 29	+		-	2000	+	-	1000	+	
	LittleFi	-0	- 29	+	- 150 +	-	2000	+	-	1000	+	Empty
Debug	StretchMove	GripMove ForeMove	Midd	leMove	RingMove		LittleMo	ve		OkMove		
			Love	e∎ode								StartDraw
	120 106	🛛 Thumb1 🗶 Thumb2 💭 Fox	reFinger 🔲 Mid	dleFinge	r 🛛 RingFinger 🔳 Littl	leFinge	r					ClearLines
	77 62 62 19 48 19 4 -10 53 105	158 211 263 316 36	58 421 4	74 526	579 632 684	737	789	842	895	947 10	00	

3.3.3 Speed Setting

Select the joint to be set. The speed ranges from 1 to 5000. The default startup time is 2000 after power-on.

Help Language (语言)										
Communication Settings	[↑] A11	-0	Location	\$	Accele	eration 🗘	Speed	Torque	\$	Contin…
Baudrate:	Thumb1	-0	- 29	+	-	150 +	Speed	- 1000	+	- 50 +
Databit:	Thumb2	——————	- 58	+	-	150 +	100			Speed
Stopbit:	ForeFinger		- 56	+	-	150 +	500	- 1000	+	↓
Checkbit:	MiddleFi	-0	- 29	+	-	150 +	1000	- 1000	+	Send
course Close	RingFinger	-0	- 29	+	-	150 +	2000	- 1000	+	2.
source croso	LittleFi	-0	- 29	+	-	150 +	3000	- 1000	+	Empty
Debug	StretchMove 0	ripMove ForeMove	Mi	ldleMove		RingMove	5000	OkMor	re	
	FF FF 03 B1 02 00 00 00 0	0 00 00 00 00 00 00 00 FF FF								
		Thumb1 Thumb2 PRo	IO'	ve∎ode	er m RingF	Finger m litt]	aFinger			StartDraw
	120 106 177 2 74 48 19 191 177 40 4 4 -10 53 105	158 211 263 316 30	58 421	474 52	6 579	632 684	737 769 842	895 947	1000	ClearLines

3.3.4 Torque Setting

Help Language (语言) Communication Settings Ð A11 \$ \$ ٥ \$ Contin... Location Torque Port: 浙 -1000 + - 50 + Thumb1 + -150 + -2000 + -29 Baudrate: 13 + + -2000 + -+ Torque 🗘 58 150 Thumb2 1000 Databit: 8 D. + -+ 1000 Ť ✓ ForeFinger Stopbit -D. -2000 + 1000 + 29 + _ 150 + – MiddleFi Checkbit: \mathcal{R} \Diamond í, -+ -+ -2000 + -1000 + 150 29 RingFinger search Close 29 + - 150 + - 2000 + - 1000 + A. -LittleFi... Empty StretchWove GripNove ForeWove MiddleWove RingNove LittleNove OkdMove Debug FF FF 03 B1 02 00 00 00 00 00 00 00 00 00 00 00 FF FF FF FF 03 B1 02 00 00 00 00 00 00 00 00 00 00 00 FF FF lovelode StartDraw □ Thumb1 □ Thumb2 ■ ForeFinger ■ MiddleFinger ■ RingFinger ■ LittleFinger 120 106 91 77 62 48 33 19 4 4 ClearLines -10 53 105 158 211 263 316 368 421 474 526 579 632 684 737 789 842 895 947 1000

Check the joint to be set, the torque contains 1-1000, here the default power on after 1000.

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3.3.5 Finger Mode Setting

The user selects the corresponding mode to define the setting parameters. The specific parameters are shown in the following figure.



4 Set Internal Parameters

Users can modify other parameters such as manipulator motion limit and current.

4.1Modification Procedure Description

Step1 Click the "Stop Painting" button



Step2.Click the "Parameter Settings" button



Step3 Select the ID you want to set

Help Language (语言)				
Communication Settings	MinPos	300		sten3 select joint id
Baudrate: 115200Kbps	MaxPos	1600	Location	ID: 1
Databit: 8	CorrectPos	0		Voltage: 70
Stopbit: 1	Uninstall Condition	30	Uninstall	Temperatrue: 37
search Close	ProtectTorque	0		Load: 0
Dahur	ProtectTime	0	Overload	Location: 1646
and ag	OverTorque	30		Step4 select btn to change state
	ProtectCircuit	1000		For details, see the agreement manually.
	OverCurrentTime	0	Overload	
	MaxOutputTorque	1000		
	MinStartingForce	0		
	MaxTemp	50	Work	
	MaxVoltage	50		
	MinVoltage	40		

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Step4 Modify the internal status parameter values by module

Help Language (语言)						
Communication Settings	MinPos	300	000		1	
Port: COM4			300		1 2 3 4	5 6
Baudrate: 115200Kbps	MaxPos	1600	1600	Location	ID: 1	
Databit: 8	CorrectPos	_o Enter the val	ue you want to Number	nodify	Voltage: 55	
Stopbit: 1	Uninstall Condition	30	No. 1		Temperatrue: 49	
Checkbit: \mathcal{R}			Number	Uninstall		
search Close	ProtectTorque	0			Load: 0	
	ProtectTime	0			Location: 309	
PowerOff Debug				Overload		
	OverTorque	30			Unable	
	ProtectCircuit	1000			Now you can write.	
	Tiotectoricart	1000				
	OverCurrentTime	0		Overload		
			Trump or			
	MaxOutputTorque	1000				
	MinStartingForce	0				
	MaxTemp	50		Work		
	MaxVoltage	50				
	MinVoltage	40				
			L			

Step5 Modify value

1, reference value description: indicates 1-6 joints, see 2.2 for specific instructions

1 2	3	4	5	6
ID:	Ī	1		ī
Voltage:		70		
Change refe	rence	e value	s in re	al time
Temperatru	1e :	37		
Load:		0		
Location:		1646		

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t:	MinPos	300	300			
drate:	MaxPos	1600	1600		1 2 3 4 5	5 6
abit: 8	CorrectPos	0	2, After changing num	ber,	Voltage: 70	
bit: 1			click Location button.			
kbit: 无 O	Uninstall Condition	30	Number Uni	stall	Temperatrue: 37	
earch Close	ProtectTorque	0			Load: 0	
	ProtectTime	0	Number ove	rload	Location: 1646	
lebug	OverTorque	30			Unable	1. Click the button so that the word
	ProtectCircuit	1000			Now you can write.	the button.
	OverCurrentTime	0	Number	rload		
	MaxOutputTorque	1000	Number			
	MinStartingForce	0				
	MaxTemp	50	Number	ork		
	MaxVoltage	50				
	WinVoltano	10				

4.2Power On And Off

1. Power on and off: indicates the working state of the internal manipulator. The user is powered on by default.

