myblockly software :

1. Run the software

The user double-clicks the software exe file, which requires administrator rights to run. After opening, the main interface of the software is displayed, as shown in Figure 3.1:

Select the init robot to `MyCobot 320`,Baud is `115200`

(This manual uses the myCobot 320 M5 robotic arm as an example, so the port connected to my computer is' COM5 '.

If the arm you are using is myCobot 320 Pi, select the port as' /dev/ttyAMA0')

📴 myblockly																													0	10			×
Blockly Pythor	1																								(•	R	un					<
Logic	^	ŝ	8	÷	÷	à	i.	+	1	÷.	ŝ	÷.	÷	3	ł.	1	+		ŝ	×.	÷	à.	i.	÷.,	e)	ŧ.	÷	×.	÷.	3	8	٠.	+
Loops	2	$\overline{\Sigma}$	5	1	0	2	17			\overline{D}	5	3	0	8	it.		*	51	5	0	0	1	77			ħ	5	3	0	8	17	1	1
Text	1	55	6	nit	Mv	Cob	ot	320	-	Por	0	OM	8 -	Ba	ud	11	5200	0 -	1	2	2	1	Ŭ.			5	5		2	1	10		
Math	1	13	-	-			a.a.n		_								-devied		4	37	8	38	17	. •	1		85	3	8	3	17		38) -
List	1	43	80	8	8	16	14	+	387	83	85	8	8	38	15	140		41	82	8	8	38	13	1		41	80	3	8	34			
Variables	1	*					9			*3	*				9			*2	*				9			*	*	*			5¥		
Functions	1	1				-	4			1				-	4			12			-	34 	14	•		1	-			3			
Time			÷.	1	1	2	2	1	*		Š.	1	2	č.	1	1	*	1	ŝ.	3	1	8	2	1	*	1	Š.	1	1	č.		1	*
Raspi-GPIO			ţ,	ċ	Ċ	1	1	+	0.†.)			÷.	÷.	1	1	+	*	1	Ċ.	ĉ.	÷	Ċ	1	t.	(*)	Ť.	÷.	ĉ	÷.	Ċ.		1 to	1
Custom Status		51	5			3. 	13 	•		7.1 	35 			35 	57 		•	73 10	55 			33 	57 			13 10	5			35 	187 	•	
WI AN Sotting							а 				- 00 - 20				а 13			50 20					а 1				- 20		а 		а 13		
Basic							14		1000		ас ж			a	14	-						30 32	14						- 10 - 10		(0	
										-				8	5			-		1			9					12				\sim	
Status		12	22	2		-	1		140	12	22			3	14	-		12	22			3	14		140	12	22			3	. (+)	
MDI Control				÷	÷	2	3	÷	(4) (23		÷	÷.	2	4	+	(i+)	2	÷	÷	÷.	9	2	1	4	2	÷	÷	÷	2	. (-)	
JOG Control			2	÷	i,	3	į.	+	÷	-	2	ų.	ŝ.	5	5	i.	+	÷.	2	ŝ.	ŝ.	3	5	÷.,	÷		ŝ	2	4	3		<u> </u>	4
Setting		5	5			2	at.			51	5			8	et.			ti	5			1	it.			ti	5			35		-	
Servo		6	8				8			53	50		2		3			t5	8	2	2	1	8			6	8		2				
Gripper			×	8	\otimes	3	17				85	3	\approx	з	iit.		1		8	8	\approx	з	17		20		82	$^{\circ}$	\otimes	з			
Coord Control			÷			4	14	+				-11	- Apr	÷.		- 14	12	÷	÷.		121			-	10	-17	÷.	-41	10		-	IR .	

Figure 3.1 Software interface display

2. Blockly Programming

(1) Show building blocks

Click the left mouse button on the leftmost building block list to

expand the corresponding building block:

📴 myblockly																													342				×
Blockly Python																									(R	un			:		•
Logic	1	3	÷	1	e)	÷	ŝ	÷	÷	3	li.	+	e)	1	÷	÷	ŝ.	3	a.	1	(†	ŧ.	8	÷	÷	3	ł	1	÷٢	-	8	÷	3
Loops	ŀ.	2	57			51	5	3	8	8	17		*	51	5			8	17			51	5			35	1			$t_{\rm S}$	5	3	a -
Text	ŀ.	8	6	nit	Mv	Coh	ot	220	Ş	Dor		OM	8 .	Ra	ud	11	520	n -				15	5		25	10	8	20		$_{5}$	10		2
Math	ŀ.	8	4	-	iviy	COL	JOI .	520					0	0.00	uu		520	0		180	190	53	85	$^{\circ}$	×	38	8		199	53	85	3	8
List	ŀ .	×	15	983			85	8	8	36	15	(e.)		20	85	3	8	38	15	14	1967	41	80	8	8	38	14			23	85	3	8
Variables	ŀ .	*	54			12			1	:	5			÷2	20			÷	54			÷2	*3			÷2	54			÷2	*:		2
Functions	ŀ.	i.	14	4		12	22	2	1	9	24			12	22	2	4	4	14		4	12	12	12	10	32	14			12	22	12	а - <u>-</u>
Time	Ŀ	1		+	•	*	1		1	3	1	+	+	*	•	1	2	3		+	+	1	•		*	3		.*	•	*	1		1
Raspi-GPIO	ŀ.	3	ł	1	÷)	1	÷.	2	÷	3	l.	1	¢.	1	÷	÷	8	3	a.	÷.,),	÷.	8	*	÷	3	ł	1	(†	-	÷	*	21
		2	57		*	51	5		8	8	17		*	53	5		10	8	17			73	5	3	1	35	17			73	55	3	2
System Status	P -	it.	3			ti	5	12	2	1	12		.*	t5	5		17	3	10	1		10	10		1	1	2	1	1.1	ti	10		2
WLAN Setting		3	12			*))	×	8	8	38	12			*	8			35	1	181	1	51	8	÷	8	38	12			51	1	5	× 1
Basic		8	15	1953	1	4	80		8	36	14		4	*1	80			38		1		43	80			18				41	. 7	Ţ	1
ATOM IO	1		9			+2	*		*		9			*3			*	4	54	*		*2	*		*		34			*2	· (.	(F	с. 1
Status	1	1	4			1	2	2	1	9	14			1	22	2		9	14			+	12	1		2	4			1	->	×	1
MDI Control	Ľ				*		1		1	3	2	÷	+		*	7	7	2		.+	+	1	*	1	1	2		.*	*	*	.(D	1
JOG Control		5	ł	1	(†)	1	÷.	*	÷	3	2	÷	(†	1	÷	÷	8	3	1	10	(†)	5	8	2		3	a an	10	(†)	*	÷.,	÷.,	1
Setting		2	E.		*	53	5	3	2	3	17			51	5	5	8	8	17			13	5	3		3	1			<u>55</u>	de.	-	2
Servo	ŀ.	it.	6	1.1		ti	5	22	2	1	2			55	5	2	15	1	10	1		5	<u>8</u> 8	1	1	1	68		1.1	ti	*		2.4
Gripper	1	8	12	190	100		8	8	8	3	2	- 20	20	10	×	×	8	3	12	- 200	20	53	8	×	×	з	8	-20	200	- 53	20		8
Coord Control			14					÷		14																						100	4



Figure 3.2 shows the list of blocks on the main interface of the software

Figure 3.3 Building block list expanded

(2) Drag and drop building blocks

Move the mouse over the corresponding building block, hold down

the left mouse button, and drag the building block to the editing area.



Figure 3.4 Dragging blocks

(3) Change building block parameters

Double-click the parameters in the building blocks in the editing area to modify the parameters.

📴 myblockly																												3 <u>33</u>	ă			×
Blockly Python																								(R	tun			:		<
Logic	*																															5 - F
Loops	1.1	1	3	2t			*):	22	8	3	×	2			10) (12	2		3	19			£);	21	8	3	C	2t		1	*))	× 1
Text	1.1						43	÷.						4	47								63	÷.				4			43	1.1
Math	1.1	*	2				*		+		4	2			÷.	*	*							*	+			2			*	1
List			1	1	nit	My	Cob	ot	320	Ŧ	Por	t C	OM	8 -	Ba	ud	11	520	0 -	1	*			1		+	1	-			*	÷.,
Variables	1.1		1		-				-			1.17					-				*			*			1			•		2.1
Functions	1.1	÷	3	Ľ					1				0			2	20		3		+	÷	•	8	3	÷	3	÷.	(*)	*	*	8.1
Time	1.1	*		1		6								4		1		.*	12	17	1		10	5	8		12	1	1		50	
Pacei CRIO	1		3	1	1									:*S	10	5	*	1	8	2			5	5	*	1	8	1		12	10	2
Kaspi-GPIO	1	2	3	ेर			*.)(22	3	1	3				*))	*	1		9	1			•2	21	1		C.	2t			*2	1
System Status	1.1						43	1			1				4))								4	*							43	1
WLAN Setting	1.1	*	9				* 1		+		4	24			÷.	*	*							*	+			2	•			1
Basic	- 1			14				2		9	4	14				+	2			14	*				4			14		• •()·	1
ATOM IO	1.1		3			*		2			*		+	+	*	•					+		*	•		*	1				in	1
Status	1.1	÷	3	÷.	•	·+)		8	2	÷	3	1	•	+	*	8	3	+			٠.	+	*	8	2	*	3	÷.	(*).	- (Y	1
MDI Control	1.1	*					20	5	1			17			10	21	8	1	12	17			20	51	2		12	1		- (-)	2
JOG Control	1.1	1	3	3		120	t)	8			3	8		:::S	15	5		1	3	5		120	10	5		2	25	3	1			2
Setting		2	3	Сł.		100	*);	22		3	E	21			*);	$\Sigma_{\rm c}$			3	19			10	21	*	3	0	1.		-		
Servo							43	×.		2	1	14			47	*	(e)		1	14			43				1	4				1.0
Gripper		*	2	2			*	÷	+		9	2			17	1	+		2	2	•		17	*:					•	-	1	8 A
Coord Control	<u>ب</u> ا	2		14	-		20	47																						D*	10	2.1

Figure 3.5 Changing building block parameters

(4) Duplicate building blocks

Right-click the building block, then left-click and select "Copy" to copy the building block. After clicking "Copy", the same building block will appear in the editing area:

🧧 myblockly																													200	2			×	1
Blockly	Python																								(► F	Run			:		<	
Logic	à																																	
Loops		-	3	9	t .	*		13	Σ		3	3	19			()		3	3	×	21			10		2	3	0	21		1	*):	2	
Text		1.1			+			63	÷.			2	14			40	4				14			63	÷.		2	0	24			43	8	
Math		1		6			*	12		+		6	2			•	*	*		1				1	*	*		2	1			12	*	1
List		- *	-			it	Mv	Cob	ot	320		Por	tC	ON	18 -	B	aud	11	520	0 -		+			1	*	1		4					1
Variables							,								-				1			*			1		1	2			•		1	
Functions		1.1	1		S					1				0		eed		20		-	4	(*)	<u>_</u>	*	8)	3	÷	3	2	(*)	÷.	*	•	
Timo		- 1			1		*	10	1	ð	3	i.	1				Du	plica	te			1	1	5	<u>*</u> :	*	.*	1	1			10	1	
Raspi-GPI	2	1			1			t.	5	*		18	68			1	Ad	d Co	mm	ent				1	5			25	8		1	10	1	
Raspi-Oric	0							*1				3			*	1	Ex	terna	al Inp	outs				•1	*						*	*1	1	
System Sta	atus															1	Co	llaps	e Bl	ock														
WLAN Set	ting									*						-1	Dis	able	Blo	ck						*					٠,	i.		
Basic																1	De	lete	4 BI	ocks											. (Ŷ		
ATOM IO		1.0						2	8	2	Ĩ.	1	15	Č		1					-	S.		2	1	2	1	÷.	5	3	0	À	Č.	
Status		- 1	1			*	÷.		č)	7	ĉ		1	*	*		*)	2	Ċ		1	÷.,			*)	2	÷.	1			. }	2		
MDI Contr	rol	- 1			1			10	5	8		12	1				*	1		1		3		20	<u>*</u> :	*	*		1		• (÷)	2	
JOG Contr	ol		2	1	1		10	10	5	*		10	68			10	5		1	1	1		1	10	5	*		8	1			*	1	Î
Setting			3	9	1	*		÷);	20	1	3	1	28			*))	2				1			*):	*	(*)	3	0	ंर			Sec.	1	l
Servo		1						43	*							4))	*				14			6					1					ĺ
Gripper								1		+		4	2			• 2	*	+	1	4	2			12	*:	+		2	2		2	100	*	
Coord Cor	trol -		- 54		÷			8 C	÷	0																					D*	1	22	1

Figure 3.6 Copying the building blocks Figure 1

																											344				×
																							(R	tun					<
																															- ·
*	7	3	i.t			÷3	22	8	3	3	्र			*))	22		3	3	1	.*		10	21	8	3	0	1			*))	× 1
						*3								*																	÷ 1
*		2						*																	*						
			1	nit	My	Cob	ot	320	•	Por	t C	OM	8 -	Ba	ud (11	520	0 •	1												
				~			15			212	1		-		1	0															1
		1	C	oer :	IOIN	10	1	1	Ani	gie	1	5	spe	ea	4	20				(*),					Ċ	1	2				1
			1	1	i.													Ť				1	1	* 	*		1				
							t ld		1				0				20					1									
	а 		а Ц																	÷.				÷	а 	÷.		÷.			
	2						2								2		2	2				2			2						
2		2								č.						<u>_</u>	2	ŝ.					2	2		2	2		. /	5	
	<u>;</u>		0				5		0	2					2	2	0	2					5	5	\$	2			. `	Ŷ	
		2					1	3		2					10			2					10						. (.	(t	
																													.7	K	
		20								2								2											. (2	
																	2	с. ж											-		
																															<u> </u>
		2	2			13			2	4				43	-			2				2					2			10	
2			14				2	_																							2 3
	한 전 전 전 및 것 같은 한 전 전 전 전 및 것 같은 전 전 전 전 전				Init	init My Set Join Set	Init MyCob Set Joint Id Set Join	Init MyCobot : Set Joint Id Set Joint Id	Init MyCobot 320 Set Joint Id	Init MyCobot 320 • Set Joint Id 1 And Set Joint Id 1	Init MyCobot 320 • Por Set Joint Id 1 Angle Set Joint Id 1 An	Init MyCobot 320 Port C Set Joint Id 1 Angle Set Joint Id 1 Angle	Init MyCobot 320 Port COM Set Joint Id 1 Angle 0 Set Joint Id 1 Angle	Init MyCobot 320 Port COM8 Set Joint Id 1 Angle 0 Spo Set Joint Id 1 Angle 0	Init MyCobot 320 • Port COM8 • Ba Set Joint Id 1 Angle 0 Speed Set Joint Id 1 Angle 0 Spe	Init MyCobot 320 Port COM8 Baud Set Joint Id 1 Angle 0 Speed 2 Set Joint Id 1 Angle 0 Speed	Init MyCobot 320 • Port COM8 • Baud 111 Set Joint Id 1 Angle 0 Speed 20 Set Joint Id 1 Angle 0 Speed	Init MyCobot 320 • Port COM8 • Baud 11520 Set Joint Id 1 Angle 0 Speed 20 Set Joint Id 1 Angle 0 Speed 20	Init MyCobot 320 • Port COM8 • Baud 115200 • Set Joint Id 1 Angle 0 Speed 20 Set Joint Id 1 Angle 0 Speed 20	Init MyCobot 320 • Port COM8 • Baud 115200 • Set Joint Id 1 Angle 0 Speed 20 Set Joint Id 1 Angle 0 Speed 20	Init MyCobot 320 • Port COM8 • Baud 115200 • Set Joint Id 1 Angle 0 Speed 20 Set Joint Id 1 Angle 0 Speed 20	Init MyCobot 320 • Port COM8 • Baud 115200 • Set Joint Id 1 Angle 0 Speed 20 Set Joint Id 1 Angle 0 Speed 20	Init MyCobot 320 • Port COM8 • Baud 115200 • Set Joint Id 1 Angle 0 Speed 20 Set Joint Id 1 Angle 0 Speed 20	Init MyCobot 320 • Port COM8 • Baud 115200 • Set Joint Id 1 Angle 0 Speed 20 Set Joint Id 1 Angle 0 Speed 20	Init MyCobot 320 • Port COM8 • Baud 115200 • Set Joint Id 1 Angle 0 Speed 20 Set Joint Id 1 Angle 0 Speed 20	Init MyCobot 320 • Port COM8 • Baud 115200 • Set Joint Id 1 Angle 0 Speed 20 Set Joint Id 1 Angle 0 Speed 20	Init MyCobot 320 • Port COM8 • Baud 115200 • Set Joint Id 1 Angle 0 Speed 20 Set Joint Id 1 Angle 0 Speed 20	Init MyCobot 320 • Port COM8 • Baud 115200 • Set Joint Id 1 Angle 0 Speed 20 Set Joint Id 1 Angle 0 Speed 20	Init MyCobot 320 • Port COM8 • Baud 115200 • Set Joint Id 1 Angle 0 Speed 20 Set Joint Id 1 Angle 0 Speed 20	Init MyCobot 320 • Port COM8 • Baud 115200 • Set Joint Id 1 Angle 0 Speed 20	Init MyCobot 320 Port COM8 Baud 11520 Set Joint Id 1 Angle 0 Speed 20

Figure 3.7 Copying building blocks Figure 2

(5) Add block annotations

After right-clicking the building block and left-clicking "Add Comment", a '?' will appear on the left side of the building block. 'Sign, left mouse click'? 'sign, a comment input box will appear. You can enter the comment content in the input box and left-click again'? 'You can hide the input box.

🥃 myblockly																												35	-			×
Blockly Python																								(Þ F	Run					<
Logic																																8 - I
Loops	- 1		×	2			10	Σ	3	2	(ϵ)	2	. •		())	$\tilde{\Sigma}$	3		Эř	Сł.);	Σ	8		3	28			*):	20
Text		34) (4)	1	1			43		1	(A)		24			47			2		14			63		9	(A)	0	14			43	×
Math	1.1		1				13	8	+		1	2			÷.:	1	+		1	2			12	*:	+		2	2			12	÷
List	- 2	4		1	mit	Mv	Coł	ot	320	-	Por	tC	OM	8 -	Ba	ud	11	520	0 -	1			1	1	9	+	1	14			1	÷ .
Variables	1.1				-	,														-			•	1		*	1			•		S - 1
Functions	1.1	÷	3	l					1				0			â	20			÷	۰,	*	1	8	5	+	2	÷	(÷.)	÷)	•	÷
Time	- 5																	1	Dupli	cate				5	*	*	12	17	1		20	2
Time Devel CDIO	1.1	2	2	3	1	1	10	5		2	15	3	1	1	10	5	*	Γ	Add (Com	ment		×.	5	*		2	2		120	10	÷. 1
Raspi-GPIO	- 1		0	2			÷);	20		2	1	2		190	*):	22	8		Exter	nal l	nput	s	*:	22	3	2	3	28			*):	* 1
System Status	1.1		0	1			43		1		1	24			40	1	(*)		Colla	nse l	Block		*	÷.		(A)	0	1			43	1
WLAN Setting			.4				10	÷.	+	1					÷.	÷	*		Dieak	lo B	lock			*7	+	.*	2				-	
Basic	- 1	4		1				1	4	1	14	14			1	1	2		Delet		Deel			1	9	4	1	14			۰	21
ATOM IO	1.1				+	*		2			*		+	+	*	1		2	Jelei	e 4 c	DIOCK	s		•		*	1				i	<u>.</u> 1
Status	1.2	÷		÷	+.	+		8	-	÷		ł.	*	+		÷	5	÷			(+)	્રો		8	7	÷	2	*	(*).	- (Ð	÷.
MDI Control	- 5	*	12	1			10	5	1			1			12	5	5		12		20		20	5	*		12	17	1	- ()	(* 1
JOG Control	1.1	2	25	3	1	120	10	5		2	15	8		1	15	5			25	5		1	10	5		3	25	65				÷ 1
Setting	- 1		0	Зł.	. *		÷11	Σ			1	2		190	())	22			0	1			÷);	21		2	0	1				2.1
Servo	1.1	2	0	14			63	*	9		1	14			43	1	(e)	2	0	54			43	43	9	(a)	0	14				
Gripper			1	2			17		+		1	2			÷.,	*	+		2	4			17	*	+			2		- 200		÷ 1
Coord Control		9	1	14			12	1																						D* .	10	-

Figure 3.8 Adding building block annotation Figure 1

🧧 myblockly																													-	2			×
Blockly	Python																								(R	un					<
Logic					3																												8) - I
Loops				Э	2			0		8	3	Э	2			÷.);		8		3	12			0	Σ			3	1		100	*):	5 - I
Text				2	1						9	3	3			40	*			2	1.4			63				20				47	× - 1
Math		+	*	4	2			42	÷	+		4	3			12	÷	+	1	4	24			12	*:	+	*	÷.				*2	÷ - 1
List		*		4	1	nit	Mv	Col	oot	320		Por	t C	OM	8 -	Ba	uď	11	520	0 -	1	+		1	1	*	-		4				2.1
Variables		2	*	*		~				1.1	-			-				17				+	+	•	1	2	*	2	1	1	+	•	5
Functions	i.	3		3		0					1				0				20			(٠)		*	8	3	÷	3			*		8.1
Time		5	1	1	/			10	51	5	Ċ		13		*	75	51		1		17			25	5	5		12	1			20	1
Dacpi CPL	0	+	*	1			1	10	5	*	1	2	3		12	t):	5	*	1	2	3		1	12	5	*		3	3	.*.	:#S	10	÷.
Kaspi-Gri	0	*	1	1				•	*							*)								*)					1			*	1
System St	atus	*						*		*					- 4	*)					+			*3	*			20		*		*	1
WLAN Set	tting	*																		1												÷	1
Basic										1								*							*						(Ŷ	
ATOM IO	\$	1	1	÷.			1		8	1	1	č.		*	*		8		1	1		*			1	1	*	2		3	1	À	č
Status		2	Ċ	2		۰.	1		č)	2	Ċ	2		*			<u>*</u>)		÷	2		(*.)			*)	2	÷	1			- \	2	1
MDI Cont	rol	Ċ.		1	1		*	7.5	5	Ċ.	Ċ	2	1		*	73	51	Č		1	17	*		75	5	3	1	1	57		. (÷)	÷ 1
JOG Conti	rol	+		8	3		1			*		3	3				5			8	2		1	10	0	*	1	8	3			1	1
Setting		*	7	3		*		*	2	*		3	1			*)	*	*		3	1			*2	<u>*</u>				1				
Servo		*													-																		÷
Gripper		+	*	8						*								*		1												-	
Coord Co	ntrol +	4	1					÷ .	+1																						D*	1	÷ .

Figure 3.9 Adding building block annotation Figure 2

📴 myblockly																	3 <u>10</u>	C	נ	×
Blockly Python															► F	Run				<
Logic							1 1							÷.	ŝ.	i.			2	
Loops		1		5 5	12			2.3		1. 1.1	12			2	2				2	
Text					10		2 2					2	8 0. 8 8			ы н 16 - 19		- 2	2	
Math																	80 - 189 		-	
List		Init	MyCobot	320 •	Port	COM	B 🔹 B	aud 🚺	1520	0 - 1					2					
Variables																				
Functions												43								
Time						-	10 - 10				1	12		2				10	-	
Raspi-GPIO		to	40 anlge	l move	a - 1		12 12	a a	1	a (a)		12	2 2		1	s. 5		13	2	2
						• •		3	8		4		8 8	÷	3	8.18			÷	
System Status	1 1 1						2 2			1 5					4				4	4
WLAN Setting		* *	Set Joi		1		40			20		25			2	a 2		20	(0)	8
ATOMIO	s - 8 - 8			2. 2		•. •.•	5.5	* *	e.	1.1		12	e . e		3	8 8	:: :::	13	Y	
Status	8 8 R	100		$\sim -\infty$	2		$C = \Sigma$	8.0		2.00		10	5 B		3	3. S		0	(\pm))•
MDI Control	$x \propto x$	$\mathbf{r} = \mathbf{x}$		$\approx -\infty$		*	$i_{i}^{(i)} = i_{i}^{(i)}$	98 - 9	- 00	÷ •		43	8 (R)	90	2	54 - S	ē (4)	40	ē)*
IOG Control			8 42 42 AV	× - 1	2	a.,	10 - 20	÷		а (с.	-	12	-		1	<u>.</u>		12	\mathcal{V}	
Setting	2 12 12		2 12 12 12	9 G	4		12 - 12	Q (1	1	4			2 2	2		S - S		1	-	8
Servo		+ +		• •	2	• •	• •	3		1	+	•	8 8	÷	3	8	• •			• •
Gripper	5 3 3	֥	1.6.8.3	• •		•	÷ +	8.3		• •	•		8 8		3		• •	1	+	8 F
Coord Control	5 15 13		<u>, 15 5 5</u>				14 14	1.				N	1 - 1		d.	int in		-	5	5 5

Figure 3.10 Adding building block annotation Figure 3

(6) Reduce/enlarge building blocks

Use the mouse wheel or the left mouse button to click the '+' or '-' icon in the lower right corner of the blockly editing area to zoom in or out of the building blocks.

📴 myblockly																													3	<u></u>	C	נ	×	
Blockly Pytho	n																											Run					<	
Logic		2	i.	2					ç.		i.	4			1		ç.		2	2				2	÷		1						2	
Loops		÷	4	2	+	+		÷	2	-	×.	2	+	÷.		÷	2	÷	2			+		5	4	÷	4	2	+	+		-	2	
Text			2		4		2	2		1	ŝ.		+			2	÷	1			÷.,			3								2		
Math							_	_	_	_	_			_				_	_	_														
List			3	8	U	nit	My	Cob	ot :	320		Por	t C	OM	8 •	Ba	ud	11	520	0 •			•				3						+	
Variables			×				-								0								-					24				*		
Functions		92	×.	3			40	×.	÷.	ж	×.	3			e	×.	÷	92	\approx	54			43	×	÷	98	\sim	54			43		(e)	
Time			4	2		1	42	÷		1	2	2			i.		+		2	4			42				2	2		10	12		4	1
Raspi-GPIO			4	14	-			÷	\widehat{a}		1	12				÷	\widehat{a}	\mathbb{Q}	1	14					$\hat{\varphi}$		2	52				÷.	÷	
System Status		Ť	÷	ł	÷	+	•	9	2	÷	3	ŝ.	+	•	•	5	3	÷	3	÷	9		•	ŝ	3	÷	3	1	÷	+		÷	2	
WI AN Setting		8	3		۰.	+		8		÷	3		۰.			8	8	÷			٤,	•		8	8		3		۰.	+		÷		
Basic			2	13			20	5	5		12	11			25	5	5	3	12	1			55	5	5		12	12			10	-0)-	н
ATOMIO			3	3		:*3	10	5			3	3		12	10	5	÷	2	8	3		15	12	5		2	2	8		15	10	Y.		
Status			3	2				$\overline{\mathcal{L}}$			3	2			0	Σ_{i}	3	(2)	\sim	2			10	22	3		\otimes		-	-	-	$(\pm$).	
MDI Control		9	3	3	*		40	×.	$\langle \hat{r} \rangle$	9	2	14			ė)	1	$\left \hat{\tau} \right $	92	2	54		141	43	×.	$\left \mathbf{r} \right $	98	2	54	•		-	(-).	
IOG Control			4	4			42	87	+		4	2	•		£1	2	+		2	4			42	2	+	1	4	ः •	-	-	-	\sim	1.	
Setting			4	14			10	÷	4	4	1	14	+		10	÷	4	9	1	14			* 0	1	÷.	1	1	2			10	-	1	
Servo		Ť	3	2	+	+	•	÷		÷	3	ł	+	+	•	5	2	÷	3	÷	1	+	•	5	3	Ť	3	1	1	+			2	4
Gripper			3		۰.	•	•	8		÷	3		٤.		•	•		÷	3		٥.			8	8		3		•	+		4		1
Coord Control		3	2	13			75	5	5	1	2	i.t	1		1.	t.	t.	1	d.	a.	a la	1	1.	t.	t.	d.		10	t.	1		5	8	

Figure 3.11 Zoom in/out the building blocks

(7) Display blocks in the center

Left-click the 'center' icon in the lower right corner of the blockly editing area to center the blocks in the editing area.

🥃 myblockly			- 🗆 ×
Blockly Pythor			🕨 Run 🔡 🌖
Logic Loops Text	 		
Math List Variables Eunctions	nit MyCobot 320	Port COM8 - Baud 115200 -	
Time Raspi-GPIO			
System Status WLAN Setting Basic	· · · · · · ·		· · · · · · · · · · · · · · · · · · ·
ATOM IO Status MDI Control			
JOG Control Setting Servo	 		
Gripper	 	· · · · · · · · · · · · · · · · · ·	

8

Figure 3.12 Display building blocks in the center

(8) Split building blocks

For building blocks with multiple parameters, you can right-click the mouse and select 'External Input' to split them into multi-line building blocks; right-click the split building blocks and select 'Single Line Input' to restore the original line.

📴 myblockly					3 <u>10</u>		×
Blockly Python				Run			
Logic		- 2	ġ.				2 2 2
Loops		2	÷	1	• •		6 8 8
Math	n n n n n <u>n n n n n n n n n n n n n n </u>	+		÷ .	• •		
List	Init MyCobot 320 Port COM8 Baud 115200	1		a 13		5 T	5 5 5
Variables	Set Joint Id 1 Angle 0 Speed 20						
Functions	Dunlicate		2	а (а (а (а			
Time	Add Comment	+		a (1		- 10	
Raspi-GPIO	External Inputs	4		4 A		10	2 2
System Status	Collapse Block	2	*		• •		
WLAN Setting	Disable Block				*) *		
Basic	Delete 4 Blocks	* *				(<u>ې</u>
ATOM IO						. (,).
Status MDI Control			98	ж	÷	. ?	<u> </u>
IOG Control		+	1		-		<i>.</i>
Setting		+			•		S. 1
Servo		1	Ť		• •		
Gripper		2	<u>.</u>	 	· · ·		
Coord Control +		10					

Figure 3.13 Splitting building blocks

🥃 myblockly												3 <u>10</u>		×
Blockly Python											Run			
Logic														
Loops														
Text														
Math				·* *	5.2	2.2.2	_		8 8	÷	5 <i>6</i> 1	*) (*)	10.1	
List		Init MyCobot	320 Port C	OM8 🔹	Baud	115200		10 N	5 5		2 13		10 1	
Variables		Set Joint Id	1				11		5) (S		* *		10.1	
Functions			0											
Time			0											
nine David CDIO		Speed	20		* *									
Raspi-GPIO			Duplicate											
System Status			Add Comment						1			* *		
WLAN Setting		0 10 10 10 10 1	Inline Inputs											<u> </u>
Basic			Collapse Block	80 N	5. 5	5 5		10 N	5 5	3	5 15 1		- () ·
ATOM IO		5 05 N E	Disable Block	~~ ~~ N	50 X		t (52)	-12 fi	e e		8 (B	•	1	<u> </u>
Status			Delete 4 Blocks		1. A	8 G. 1	*	10 E	· ·		8 2		. (+)·
MDI Control			Boloto 4 Biocito		80 - 90 1	ж. ж. 1	÷ •	940 - 40	20 - 20 2	9	×	• •	• (-	_).
JOG Control				- a - a -	4) (4)				2) - 2) 2		a (a	•	. 3	~.
Setting	2 2 2 2				2 2	2 2 3	1		2 2	9	5 15		1	ter i
Servo				• •	원 원		1 81	•	8 8	÷		• •		1.1
Gripper				• •	8 8	÷ .	÷ (*)	4) - E	8 8			• •		1.5
Coord Control -			· · · · ·	ala hi	ti ti	a	1	dan Ni			1			: <u>8</u> 8

Figure 3.14 Merging building block diagram

(9) Collapse/expand building blocks

Right-click the building blocks in the editing area and select "Collapse Blocks" to collapse the building blocks to make them look more beautiful. Similarly, right-click the building blocks in the editing area and select "Expand Blocks" to fold the building blocks. The block is restored to its original state.

📴 myblockly																													2	3	C	1	×	
Blockly	Python																										Þ	Run					<	
Logic			÷.					-	ц. С.	÷.	5	1					÷.		i.	14				2	4		i.	2				2	4	
Loops		1	÷	2	+	+		÷	2	÷	3	ų.	+	4		ŝ	÷	÷	3			÷.		ş	2	÷	÷	2		4		÷	2	
Text		1	4		+	+				1			+			2	ŝ				÷.,			3	ŝ		i.		۰.	+		2		
Math				1		-	-				_				_	1		-		-				5	5		12					5		
List			3	3		Init	My	Cob	oot	320		Por	t C	OM	8 •	Ba	ud	11	520	0	J,		52		+		2	28		10	12			*
Variables	5			2						1				0				20										\sim			\sim			
Function	s	- 2	\sim	54		-														Dupl	icate				(e)	98	(\cdot)	54			+10	+1	ж.	÷.
Time			2	2			12	8	4		Q.	2			£.	÷	+		2	Add	Com	men	t		+		2	2			12		+	
Raspi-GP	PIO	- 2	4	14			1	÷	÷.	4	4	14			1	÷			1	Exter	mal I	nput	s		4		4	24				4	9	
System S	tatus	1	*	2	+	+	•	÷	2	Ť	*	ł	+	+	•	5		t	Г	Colla	pse	Bloc	k		÷	Ť	*	1	e)	+	•	÷	8	
WLAN Se	etting	1			•	+		8		÷	3		•			8	3	÷		Disal	ble B	lock			8		3		•	+		8		
Basic			12	12			70	51	8	3	12	17	20		25	5	8		3	Dele	te 4 I	Block	s		5	3	12	17			10	-0)-1	
ATOM IC			2	3		1	15	5	1		3	3		12	10	÷	*	.*	-	-			-		*		3	8		10	12	6	1	
Status		1				4		2							1			2		1			1		*		3					Œ).	
MDI Con	trol						*)	*							-	*							*	*								Œ)	
JOG Con	trol			24 22							94 102							* 0	94 102					-	*			2* 21					0.*. 0	
Setting																																		
Servo			1	15				- 23	2	1	ŝ		8		2	10	8		2		8		3	2	8		1	15	5					
Gripper			1					ें •	ः •		2		100	224		с	2	· ·	2		100			0	2	С. 	10		сто 				*	
Coord Co	ontrol -																																	<u> </u>

Figure 3.15 Folding building blocks

📴 myblockly			11.2	ο×
Blockly Python		Run		
Logic				
Loops Text			+ +	$(x_1, x_2, x_3, x_4, x_4, x_4, x_4, x_4, x_4, x_4, x_4$
Math	· · · · · · · · · · · · · · · · · · ·		100 - 100 - 100 - 100	
List	Init MyCobot 320 • Port COM8 • Baud 115200 •		• •	
Functions	Set Joint ld 1 Angle 0 Spee 1	* * * *		\sim \times \times \times
Time	Expand Block			
Raspi-GPIO	Disable Block			
System Status	Delete 4 Blocks		• •	1.1.1
WLAN Setting				
ATOM IO		* * * *		. ¥.
Status		* * * *		· (+)·
MDI Control				i Oi
Setting		2 2 2 2		
Servo			•••	
Gripper				

Figure 3.16 Expand the building blocks

(10) Disable blocks

Right-click the selected building block in the editing area, then left-click and select "Disable Block". The disabled block cannot be

converted into the corresponding Python code; right-click the disabled building block, then left-click and select "Enable Block". Restoring the original block can be automatically converted into the corresponding Python code.

🥃 myblockly					100		×
Blockly Python			٠	Run			
Logic			ŝ	a s			
Loops		8	3	8.8		1	6 8 8
l ext		8 8			- ÷		8 8 8
List	Init MyCobot 320 Port COM8 Baud 115200	5 3		81 - S		19 I	5 5 5
Variables		5 X	1	8 8 - 8	55 OS	12	
Functions	Set Joint Id 1 Angle 0 Speed 20	5		28 - 5		0	1. 2. 2
	Duplicate			+		•	1.1
Time	Add Comment						
Raspi-GPIO	External Inputs						
System Status	Collapse Block	0 0 3 3		15 15			
WLAN Setting	Disable Block	0 0 			20 - 22 		
Basic	Delete 4 Blocks					-(Ŷ.
ATOM IO						. (_
Status		e - 2				. 7	×.
MDI Control					25 - SR		J.
JOG Control		2 2	1	4 3	1	1 mill	1. C. 1.
Setting		÷		8.8			
Crippor		8 8	3		• •		
Coord Control +							5 5 5

Figure 3.17 Disabling building blocks

📴 myblockly																													8	-	C	1	×	
Blockly	Python																										Þ	Run					<	
Logic Loops	<u>^</u>		-	1				-	-		-					2	-	-	1		-			2	-			1	•			2	-	
Text Math			2		•	4	2	8	ŝ	ŝ	2	j.	د (ه)	<u>ب</u>	-	ð	ŝ	ł	2	į.		•		8	8		2		6	÷		8		•
List			8 8	83 23		nit	My	Cob	ot	320		Por	t C	OM	8 •	Ва	ud	11	520	0 •			50 50	5	8 8		2 2	67 67		180 185	50 50	5 6	т т	е 8
Functions		*	э ж	а 3	l	Set .				1			2	D			1	20	-	Dunli	cate	ाक) 	•	ĺ.	*	-	э Э	24 34			13 43	20 20	÷ ;	-
Time	~	*	а 	24			8	8	*	2	а 	24			12	8		*	A	\dd (Com	ment	i	2	ж 	2		3¥		-	12	8	4	
Raspi-GPIC	otuc	÷	ŝ	ł	•	4		8	÷.	÷	3	ł		•		ŝ	÷	-	E	Exter	nal I	nput Block	s	5	•	÷	3	i.		•		ŝ	2	
WLAN Set	tting	8	3	8	(e.) . • :	•	1	8	8	8	3	8	6	•	1	8	8		E	Inab	le Bl	lock		8	8	÷	3	8	6. 	•	1			
Basic ATOM IO		*	3	2	•	.*.	÷	ŧ		2	3	8		.*.	1	*	÷	*		Delet	te 4 [Block	s	•	*	*	3	3		-*2	÷	9		
Status MDI Contr	rol	2	е Ж	а 14			10 40	n R	÷	2	э Э	ат 14			*3 43	74 20	*	а ж	е Э	27 24		•	*: 43	20 20	* *		3	37 34		а 4	10 43	t (););	
JOG Contr	rol	а 2	9 14	54 52	-		10	е 2		2	34 14	54 52			12	ар 12		а а	3 3	84 52	-		12	а 2	4	4	9 14	а 12			1	~		
Setting Servo		÷	3	it i	1	(† 1		9	÷.	•	3	ł	۲ د	4	•	8	3	ł	3	it i	6	÷.)	•	2	3	÷	3	it V	e c	÷)	1			ļ
Gripper	ntrol +	, ,	2 2	ा स	یں۔ ج	ः 	- 14 70	*) 72	ै। ह	i.	1	1	े.	<u>.</u>		1	1	<u>.</u>	1	1	े			- -	ti ti	÷		1	े			•	5 5	* *



(11) Delete building blocks

Right-click the building block, left-click and select "Delete x blocks" to delete the building block.

Hold down the left mouse button on the building block and drag the building block to the "trash can" icon in the lower right corner of the editing area. You can also delete the building block.

Right-click on a blank space in the blockly editing area and select "Delete x blocks" to delete all blocks in the editing area.

📴 myblockly				- 🗆 X
Blockly Python			▶ Run	= 0
Logic				
Loops		5 5		
Text				
Math				
List	Init MyCobot 320 Port COM8 Baud 115200			
Variables	Set Joint Id 1 Angle 0 Speed 20			
Functions	Duplicate	$x \to x$	$\alpha = \beta = \gamma$	
Time	Add Comment	÷		(18) R. R. R.
Raspi-GPIO	External Inputs	9 Q		
System Status	Collapse Block	• •		
WLAN Setting	Disable Block	• •	• • •	
Basic	Delete 4 Blocks	5 5	a a a	· · · · · · · · · · · · · · · · · · ·
ATOM IO				
Status				
MDI Control				
JOG Control		2 2		and the second second
Setting				
Servo				
Gripper				

Figure 3.19 Delete building block 1

📴 myblockly																														2	2	C	נ	×	
Blockly	Pythor	1																										ŀ	Run					<)
Logic		*																									Č.								
Loops			÷	2					5			2							\$	2						2	0	ų.			14		ç,		
Text				2					10			2														2		2					22		
Math								_		20							- C.	21							-								-		
List				2			nit	My	Cob	ot :	320	•	Por	t C	OM	8 •	Ba	ud	11!	520	0 •							2						с ж	
Variables							1																												
Functions	5			3				40				2				8	*				4			-				2			-	43	*		
Time				4	24		14		-			2			123	13	22	+					100	12				4				12	-	æ (
Raspi-GP	10			1	14	-			÷	$\widehat{\mathcal{T}}$		12	1	-			1			1	14					с,		1	14				÷.	ç.	
Curtana C			÷	ł		+	+	•	÷	3	÷	3	ł.	+	+	÷	÷	÷.	+	3	ł	3	+	•	5	3	÷	3	2	P	+		÷	2	
System S	tatus		8	ŝ.		(÷.)	+	÷	8		÷	ŝ.		(+.)		÷	8	ŝ	÷	3		(÷.)	(\cdot)		8	8		ŝ		6	+		8		
Racic	ung			2	12			25	5	8		12	11			5	5	5		12	13				5	5		1	12			19	6	-	Ш
			2	3	58		15	10	2			3	3		125	12		÷		2	3		- 15	52	5			3	3		15	12	Y	*	
Status				3	\sim				\mathcal{T}			3	2			0	$\overline{\mathcal{T}}$	3		\sim	2			12	Σ	8		3	\mathbb{R}^{2}			12	(+).	
MDI Con	trol		90	3	14		(4)	÷	(\mathbf{x})	$\left \hat{s} \right $		2	14		1963	e	${\cal H}_{i}^{i}$	$\left \hat{\tau} \right $	9	(\mathbf{x})	i.	*		÷	${\bf k}_{i}^{\prime}$	$\hat{\mathbf{x}}$	93	3	24			÷1	õ).	н
IOG Cont	trol			4	24				2	+		4	2			÷?		+		2	4			${\cal L}_{i}^{(2)}$	8	4		4	2			12	\sim		
Setting				4	14	-		10	+	С,		1	14			1	*1	4	2		14			10	1	÷		4	14			100	-	e i	
Servo			Ť	3	1	+	+	•	÷	2	*	3	ii.	+	+	•	5	3	*	3	i.	1	+	•	9	÷.	÷	3	2	e.	+			-	1
Gripper						•	+	÷	÷		÷	2		•		÷	8		÷	3		٥.)		8	8		3		6	+		+		-
Coord Co	ntrol			2	12	1		20	5	3	1	d.	1	1		t i i	1.	Ċ.	d.	d.	1	de la		N	24	5	÷	2		d.			22	8	-

Figure 3.20 Delete building block 2

📴 myblockly																													2	<u></u>	C	נ	×	
Blockly	Python																										ŀ	Run					R)
Logic Loops			-	1				-	-		1	1	-			-				14	-			2	-	-	4 5	4	-	-		-		
Text Math			8	15		•	2		а. Э	j.	j j	la M	3 (4)		-		i j	j.	2	ji ji		•	10		8	5	0	5	5	+		1	8	
List Variables			3	23 23 24		nit Pow	My er (Cob Dn	ot :	320	•	Por	t C	OM	8 •	Ba	aud	11	520	0 •		•	-	8 8	•		2 2 3	20 20 20	•	•	•	-	*	
Functions Time		÷	а а	34 34		Pow	er (Dff	90 94	э. Э	а а	2.4 2.4	•		8 8	8) 2)	э ж	94 14	(4 (4	34 34		4	43 23		*	2	3 3	а 34	-		-0 20	8) 22	е с 2	1
Raspi-GPI	O	÷			•	•	1	2 2	9 20	÷		ia R	•	•	1	10 20	а Э	a e	10			ŕ	Und	0	2	9	i	ia R		•		2 2	9 3	
WLAN Set Basic	tting	1	2	38 13	(+) (*)	.+) +	1	8	8) 8)	•		38 13	•	(+) (+)	1	19 19	3 1	•	18 18	33 13	(%) (*)		Red	0		ocks)) 13	•	•	1) 10)-	
ATOM IO Status			8	28	•	•	1	*) *)	8		8	27 23			1	8) 92			8	4	•		Coll	apse	e Blo	ocks		3	•	•	•2	(+).	
MDI Contr JOG Contr	rol rol		3 3		•		-	-	-	-	е (4) (4)				2		-	-	3	4	-		Dele	ete 3	Blo	cks	כ	3				Ģ).	
Setting Servo		ł			•	+ +	1			•	1		+	•	•			•	100	ł	(*) (*)	•	•			•	1		•	+ +	1	*		1
Gripper	ntrol .		2	ia.			10	5	ð	-	1					1	į.								í.						nin (<u>*</u> 1	8	•

Figure 3.21 Delete building block 3

(12) Restore deleted blocks

Left-click the "trash can" icon in the lower right corner of the main

interface to display the deleted building blocks. Drag and drop the deletable building blocks into the blockly editing area.

📴 myblockly																													3	<u></u>	C	נ	×	No.
Blockly	Python																										۲	Run					<	
Logic	*		ŝ	4				2	4	i.	5	a.				2	2	÷	5	4	-			2	4	÷	ŝ	a.				2	2	
Text		ł	3	i i	1	÷.	1	8	8	ł	3	1	(F) (4)	•	18	8	3	•	3	i i	۲ ۲	1	1	8	3	ł	3	8	(F) (1)	÷.	1	8	2	÷
Math			2 2	ा त	-	nit	Mu	Coh	ot	320		Por		OM	8 -	R	hud	11	520	0 -	ŕ		1	с. 5	л 15	с 3	2	67 13			1	с 5	2 15	
Variables			8 3	8 3			iviy							UIVI		,						**	42 42	8) 20	*	*	а ж	а а			12 12	е: 2	8 8	*
Function	S		æ	5		4	ē)	×.	÷	9.	Ξ.	4			ė).	×	÷	×	R	54	÷		ē.	×.	÷	×	×	-			43		*	
Time Raspi-GP	210		а 	14 14			1	2 2	*	2	3 13	14 14		-	1	40 20	ж С	а С	3 3	а Ц			42 22	40 20	ж 2	а С	9 34	94 12			10	2	ж 2	
System S	tatus		ł	ł	•	+	•	ŧ	3	÷	3	ł	(*) 	+	1	8	÷,	•	×.	ł	9	•	•	8	÷.	÷	ł	÷	1	+	•	1	2	
WLAN Se	etting	- 0 - 0	2 2	ा स	(*) (*)	.* *	- 14 - 19	8 5	2) 2)	ð B	2 2	57 10	(*) (*)		- 11 - 12	8 5	2 5	° S	2	े ज	80 20		- 11 10	2 5	2) 25	с Э	2 2	ा स		•	. 1. 10		1	
ATOM IC)	*	8	8	•	1	5	8	*	2	8	8		1	1	*	*	*	8	8			1	5	*	*	8	8	-	.*2	1	G.	1	
Status MDI Con	trol		e R	3			с. «З	e R	2	a.	с Э	4			e.	en R	÷	a.	с Э	54			т. К	л. Ж	÷	a.	с Э	сл С4			т. К	C)	
JOG Cont	trol		9 14	3 12			- 20	2	2	-	94 194	54 54			10	- 2	а 2		3	54 54			47 22	-	-	-	34 14	94 114				_		
Setting Servo		÷	÷	ł		+	•	÷	a,	÷	ł	ł	+	+	•	÷	÷	÷	ł	ł	9	4	•	÷			-			+	1		-	ų
Gripper			3	8	•	•	1	8	8	1	3	8	٥.	े	1	8		•	3	ł	8.	े •	1	8	8		3	3	۵. •	े •		*		•
Coord Co	ntrol 👻	1.11																													100			<u> </u>

Figure 3.22 Restoring building block 1

📴 myblockly																													24				×
Blockly	Python																	_									Þ	Run					~
Logic	*		5	a.			2	2	ų.	÷.	5	a.				2	-	1	Pov	ver	On												
Text		÷.	3	1	(F) 6	ан) 1	1	8	3	ł	3	1	(*) G	•	1	8	1		Pov	ver	Off	1											
Math List			2	ः ह	6	nit	Mv	Cob	ot :	320	-	Por	0	OM	8 -	Ba	ud	1	0				all	1			d	40			4 6	20	
Variables	s		8 8	छ :स			,											1	-	Jul	-		1			gie		40	-	peci		20	
Function	IS		8	3			0	8	*	×	8	8	•		•3	×		1				ď	1				0				20		
Raspi-GF	210		a G	19 12			1	*: 22	*) 22	•	a G	2			2	*: 21	*. (2		Ĩ				2				v				2		
System S	Status	÷	100		(*) (*)	•	1	5 2	100	î.	100	12	•	•	1	9 2	-		Pov	ver	On		13	23	2	2		2	6			23 2	
WLAN Se Basic	etting		2	12			15	5	8		2	1			5	5	8																
	D	÷.,	3 3	ल अ			т. 10	е 2	*	*	8	а а	•		12 12	е 2	*																
MDI Con	ntrol	÷	а 	3	*		43 10	ж 	*	×	a 	94 10	*		43 13	*	*																
JOG Con Setting	itrol	-	2	1		-	2	2	÷.	•	2	1			2	2	÷.																
Servo					•	•	1	8	100	-			•	•	•	-	90 - 10 E																
Gripper	ontrol -			12			25	<u>, 1</u>	8																						-		

Figure 3.23 Restoring building block 2

Left-clicking the "Python" button in the upper left corner of the main interface will automatically convert the building blocks in the blockly editing area into Python code. The added comments will also be displayed, and disabled blocks will not be displayed.



Figure 3.24 blockly editing area



Figure 3.25 Converted Python code

4. run

Click the "Run" button with the left mouse button to run the converted Python code of the building blocks in the blockly editing area, and display the running results.

🧾 myblockly																												340				×
Blockly Pythe	on																						[(•	R	un					<
Logic																																1
Loops			3	1			10	t)	*	2	3	8	1	120	12	5	*		3	8	12	t)	5	*		3	65		1	10	5	8
Text				1			10		8		3	1			*):	2.1			3	Сł.		10	2	8		3	2			10	*	8
Math						-4	*3	*	*	*	8				*	+	÷			.+		*3	*	*						*)	*	×
List							•				4				•	*	+						1	*		4						÷
Variables						nit (My	Cob	oot	320	•	Por	t C	OM	8 -	Ba	ud	11	520	0 -				*								÷
Functions		1	Č.	1		orint	d	15		-		-	1										2	č,	1	Č.	3	1	*)		2	ំត
Time			2					Ľ		+		U																				2
Rasni-GPIO		*	12						1		12				10	5	۳ 	*	2	17		10	5	ð.		2				10	51	
Ruspi Grio			10	10				÷.	÷		8	ат 1.				÷.	÷		8				÷.	÷.		8						
System Status	6																		Č.								<u>.</u>					
WLAN Setting		÷.								0													2		0						5	
Basic					0																					5				1	Ŷ	
ATOM IO										÷.	÷.								÷.							5				. ((F	
Status					8		2	- 23	8		1	1	8		2	- 55	8		1	5			8	8		2	12	8 6		. 7	K	
MDI Control								۰ •	2	2	а Ц						2	÷.	<u>с</u>				с 	2	2	्		-		0	Ņ	
JOG Control					2				С 	٥ 	2						е 	٥ 	2				2	е 		2		2		_	1	
Setting			2				-	с. ж			ю 9	53 18		-	10				а а	53 54		-	-			а 14						
Servo										a.	2	1			-	-	2		2	3		1		-		2						
Gripper		2	4	2			22	-		_																				. ·	-	

Figure 3.26 Run button

🧾 myblockly		100	1		×
Blockly Python	🎄 Run		::		0
Logic					12
Loops					1
Text The program is running	(×)				
Math End of program, time consuming: 362 ms					
List child process exited with code 0					
Variables					
Functions					1
Time					2
Raspi-GPIO					1
System Status					
WLAN Setting					*
Basic					*
ΑΤΟΜ ΙΟ				Ó	1
Status				(+)	
MDI Control				()	
JOG Control	•			Ŭ,	2
Setting			- 1	-	
Servo			(† 1) 		*
Gripper				-	÷
Coord Control +			-		4

Figure 3.27 Display of running results

5. tool

Left-click the "<" icon in the upper right corner of the software's

main interface to expand the display tools. There are three drop-down boxes on the tool interface. The first one can select the model name, the second one can select the serial port number corresponding to the robot, and the third one can select the communication baud rate; there is also an "Open/Close" button, which can Open or close the communication connection between the software and the robot. In the "open" state, the "Run" button will not be available.

📴 myblockly																												344			-	×
Blockly Python																								(R	lun					
Logic																															1	
Loops		8	3	1	1983	10	1	*	1	3	2	1	12	10	5	*		8	5	1	C.15	t)	5	*		8	3		:#S	1 0	1	1
Text			28			0	1			0	12				2				1			0	2	3			2			1	/	* 1
Math					1.000	43	*	÷	×	3				*)	÷.		3	×	+			43	×.	*						1	-	8
List						*1	*	+		4				*	1	+						*1		+		4				1		
Variables					nit	My	Coł	oot	320		Por	t C	OM	8 -	Ba	ud	11	520	0 -			*	-	*		1	-			1	*	
Functions		Č.	1		orint	e C	1	1			9	1											8	č,	1	Č.	1	1	*)		2	ំក
Time	Ċ	2		U			Ľ	IJ	+		U				2	2	ĉ	2	2				÷.	2	Ċ			۵.			č.	1
Rasni-GPIO		12	10							12				10	5	5	÷		1			10	5	5 		10				10	53 -	
						10				а 								а 			-	10		÷.		÷		0	-			
System Status						-	-	-															2	-		2					2	
WLAN Setting						2	2	-		2					2	-	2	2					2	-	2	2				. 1	5	
Basic			12					2	÷		12			1	2	2			14			23	2	2		1	1			. 1	Y	
ATOM IO		2		+			÷,	2	÷	S.	÷.				s)	2	÷	ų,	2		4		Ş.	2	÷	2	2	+	14	. (-	(t	
Status				÷.,			ŝ		1	ŝ.		с. Я.,						ŝ.		1			3			2		÷.		.7	5	
MDI Control																														. (Ņ	
JOG Control										3						+								+						-	lines.	
Setting	,	×				0										+		×	+			0				÷					+ ;	
Crippor		×	34		(4)	ė?		(#)	×	×.	14			6		(e)		×	1			e	÷	(e)	3	(e	34		343			
Coord Control +		4	2		- a.)	i:																					_	_	_	D.	÷.	*

Figure 3.28 Display tool

Gripper Coord Contro

myblockly																								3 <u>10</u>		
Blockly Python																						•	Run			
Logic																										
Loops	- ×	3	3	1	1000	50	*		25	3	8		0.00	53	5			То	ols							
Text		3	2			0		8	2	3	2				$\mathcal{T}_{\mathcal{T}}$											
Math		3	14		(41)	63	1	$\langle \hat{\pi} \rangle$	92	3	14			÷				M	yCob	ot 320		~				
List	1.1	4	2		14	12	87	÷.	2	9	2		140	42	8	1			0.140							
Variables		4	14		mit	Mu	Cok	ot	220		Dord		OM	Ω.	D.	ud	11	C	OM8							
Functions	1.1	3	2			iviy	COL	101	320		FOI		OIVI	0	J De	iuu		1.	15200							
	1.1				prin		91	1	+ •	99	1				÷	-		- 2	10200							
Time	· •	2	17		1	1	*		÷	<u>.</u>	1			15	5	5	÷	C	lose		Open					
Raspi-GPIO	- ×	3	3	1	1022	50	*		35	3	8		0.55	53	5			A	uto C	omplete	e 💽)				
System Status		3	22					(8)	25	3	1				$\mathcal{T}_{\mathcal{T}}$											
WLAN Setting		3	14		1983	ė)	÷	(÷)	92	3	1		1.41	ė	×	÷		Qu	ick	Mov	e					
Basic		4	4		14.5		*	+	2	1	2	1		÷.		+		Joint	ts Cor	ntrol:	@ F	Read Ang	gles			
ATOM IO		4	14			1	+	*	9	4	14			*	÷	*	1	11		0		12		0		
Status	1.1	3		+	+	•	÷	2	÷	3	÷	1	+	•	÷	3		12		0		14		0		
MDI Control	1.1	4		(+),		•	*		8	3		٤,			*	*		15		0		14				
JOG Control		2	12			25	51	ð	3	2	17			55	5	2		15		. <u>U</u>		10				
Setting	- ×	3	58	1	12	10	5		3	3	55	1	0.55	53	5			3. 3		12.15	- 8 - 8	- 1 - 1	- 28			
Servo	- ×	(\mathbf{s})	\mathbb{C}^{+}			10		$(\underline{\theta})$		3	2				\mathcal{T}	$ \cdot \rangle$		$\otimes - \otimes$		(0,0) = (0,0)	$\Sigma = \Sigma$	≈ -9	12		0.161	1

Figure 3.29 Tool interface

6. Fast-moving

Left-click the "<" icon in the upper right corner of the software's main interface to expand and display quick movement.

🥃 myblockly																													242				×
Blockly Pyth	ion																								(R	un					
Logic	*																																
Loops		1	3	3	1	1	10	÷			3	8	1		10	-	+		8	3	1	:*S	t)	5		1	3	8		83 1	10	1	
Text			3	1			0				9	19			1	27			0	18			0	22			3	28			1	/	۰.
Math		2					63	÷.	÷	×	3	+			43	*	÷	4		1			43	×.	*						1	-	÷ 1
List			4				12		*		4				17		+								+		4				1		÷ .
Variables					1	nit	My	Cob	ot	320	•	Por	t C	OM	8 -	Ba	ud	11	520	0 -					*		1				1	-	÷
Functions		1	1	1		arint		15					1									*		8	Č.	1	Č.	1	*	*)		2	1
Timo			1		Ľ			1		+		U																					
Raspi-GPIO												1			10	5	5			17				5	č,	*							
Raspi-Grio			8	8			10	÷.			8	ат 1			10		*		8	ал П					1		8	8			1	÷.	
System Status	5		3				10				8				*1									÷	8		3				*2		
WLAN Setting	J				Č.								Ċ.																Č.			5	
Basic																															. (Ŷ	
ATOM IO			÷.								÷.								÷.						÷.		÷.				6	À	
Status																																3	
MDI Control																															(Ċ.	
JOG Control			2					5	С 		2	1	2		1		8		2					5	8		а 		2		_	2	
Setting		2 2	а 	а 			10	с 2		а 	8	ा 			10		-		а а	а 			10	с 			а 	а 1					
Servo		а 1	а а	а Ц	0		-	20 20	с 2	с 2	а а	ст ц	Č,			-	-	a a	а а	а ц			-	70 20	с 2	а 1	а а	а ц					
Gripper			-				20			_																							
Coord Contro	-																														B.		-

Figure 3.30 shows fast movement

🥃 myblockly																					182	×
Blockly Python																			·	Run		C
Logic	A																					
Loops				10	÷.;	1	3	8		0.53	12	5	*		1	15200)					
Text				10	20			2				Σ	8									
Math		.+	10 (A)	ė.	÷.	÷				1963	ŧ.	(\mathbf{x})		*	C	lose		Open				
List			a), a)	17	8		2	2		147	÷	8	1		A	uto (Complete)			
Variables		а÷.	Init	Mv	Cohe	at 32	0 •	Por	C	OM	g .	Ba	ud	11	0	i.al.	Mary	-				1
Functions		1			cobe				1	Ontri		, 00	uu		Qu	ICK	IVIOV	e				
			prin		1	+	•	1				8	9		Join	ts Co	ntrol:	® F	Read Any	gles		- 1
Lime	1.5.5	17		1	1	• •	1	1			15	5	5	3	J1		0		J2		0	
Raspi-GPIO		.÷	80 (B)	10	÷.		3	58		0.55	12	5			J3		0		J4		0	
System Status		:* · ·		*)	2			1		100	1	20			J5		0		J6		0	
WLAN Setting		+	* *	63	÷.	÷		+			÷);	*	1	*	Coo	rdina	tion Con	trol:		Read	Coords	
Basic					*						1		+			Ginta		ci oli				
ATOM IO					+								*	*	x		0		1X		.0	
Status			+ +		1		1	1	*	*	*	2	č.		у		U		ry		0	
MDI Control	1.1.1		*, *	*	8		3		(*).			8	3		Z		0		rz		0	
JOG Control		10		20	5	5 5	17	17			15	5	5	*	<u> </u>							
Setting		5 7 - 1	10 (18) (19)	10	*	1	3	5	1	0.52	53	5	*		1		186 B.	10 A.	2.3	1		has - 1
Servo		÷.		*))	2			2		100					0			× ×	3 (A			8. S.
Gripper		+	*	43	÷.	÷	3	.+			÷);	÷.	÷	*	96 - S		1.40 A)	8 - 8	9 9			
Coord Control			10 A.	67	÷.	• 🗐																¥) (4)

Figure 3.31 Quick movement interface 1

The use of fast movement requires connecting to machine communication, so you need to select the correct machine communication information in the toolbar and turn on the connection button before it can be used.

🧧 myblockly																									34	3		×
Success						×																(•				:	O
Connection su	iccess	ful					1											_						_	_	_	1	
Loops								*		3	8			12	5			То	ols									
Tovt					100	•0	1			9	\sim				\mathbf{x}_{i}			_										
Math	 × 	\sim			1963	$\epsilon_{\rm C}$	÷	$\left \hat{x} \right $		3	24			÷	×	$\left \cdot \right $		Ν	/yCol	oot 320)		~					11
List		4				${\cal C}^{(i)}_{i}$	8			9	2			ŝ.	2	+												
Variables		14	14			N.4.	Cak		220		Dee	. 6		0	D.		11	C	COM8				~					
Functions	- ÷	4	2			iviy	COL	001	320		POI		UN	8	Be	lua			1520	0								
Tunctions	1.1	2			prin	E L	4	1	+		1				8	3			1520	0								
Time			\mathbb{R}^{n}		~	-	1	2		1	12			5	5	5	*	0	lose) Op	en						
Raspi-GPIO	- ×	3	2		125	10	5			3	55		125	52				4	Auto	Compl	lete 🌔	0						
System Status		\otimes	\sim			0	\mathbf{x}_{i}	8		3	\sim		100		\mathbf{x}_{i}	8		_										
WLAN Setting	 × 	(\mathbf{x})	14		1963	± 0	(\mathbf{x})	$(\bar{\tau})$		Ξŧ.	14			ŧ)	\mathbf{x}_{i}	÷		Qı	lick	Mo	ove							11
Basic	- ×	2	1			${\cal C}^{(i)}_{i}$		*		6	2			ŝ.		+		Join	ts Co	ntrol:		a R	ead And	ales				
ATOM IO			14			1	÷		-	1	14	-		1	÷	4		11	-	0		+	12	-		0	+	i
Status	1.1	*	1	*	•	•	5	2	*	×.	1	Ð	•	•	5	3		12	_	0		-	14			0	-1	
MDI Control		2		۰.		•	8			3		6			8	3		15		0		Ť	14			0	Ť	
JOG Control	· •	1	17			15	5	5	1	2	17			15	5	5		15		0		÷	76			U	+	k.
Setting		3	3		12	53	5	*		3	3	1	1	12	5	*				- 0 * 2	5. 5	*	3. 3	- 18		1997		
Servo	1.1	3	1.0			0	Σ	3	3	9	1							0	1.1		0.00	8	8 9	2			(1)	- 8
Gripper		3	1.4			£3	×.	$\langle \hat{\pi} \rangle$		3	1	*		÷	×.	÷	3	Q			4) - 30	9	98 - 98	24	*			h a
Coord Control +		4	24		(a))	÷2	÷) · · · ·	14

Figure 3.32 Connecting machine communication

After clicking the open button with the left mouse button, the software will automatically read the angle and coordinate information of the machine and display it:

📴 myblockly																								3 <u></u> -		×
Blockly Python																										0
Logic																										
Loops	18	3	58		1.4	12	5		2	3	8		12	53	5			1	15200)		0	e			1
Text		3	1			0		8	3	3	1				22			_			-					
Math			1			63	÷	÷	90		1			6	*		141	C	lose		Open					
List						17	*	*	1	4	2			12	*	+		A	uto	omplete)				1
Variables		*		1	nit	My	Cob	ot	320		Por	t C	OM	8 -	Ba	aud	11	011	ick	Mov	a					- 11
Functions		Č.	1		orin		15		-		-	1							ICK	101000	-			10		-11
Time				Ľ			Ľ		+		U							Joint	ts Co	ntrol:	© F	Read An	gles			_
Rasni-GPIO	Ċ	10	1							1.5				1	1	5	÷	J1	-	12.1	+	J2	-	24	+	
							÷.				ат 1.						Č.	JЗ	-	33.2	+	J4	-	33	+	-
System Status						*0 - 20						Č.						J5	-	11.1	+	J6	-	2	+	
WLAN Setting									0							÷.		Coo	rdina	tion Con	trol:		Read	Coords		
Basic							2	2	÷.	5					2	-		x	-	65	+	rx	-	-124	+	
ATOM IO							5		2									v	-	44	+	rv	-	5.2	+	
Status																		7	-	-41	+	.7	-	-18.3		
MDI Control																		-			a she	12		10.0		
JOG Control																									Design of	-
Setting																										
Servo						÷		*	92	à						*		a								
Gripper		4	4		-	12	-			_		_		_	_	_	_									

Figure 3.33 Display machine information

On the premise of turning on communication, left-click the "Read Angle" button on the fast movement interface to read the angle information of the machine once and update it to display it.

📴 myblockly																										2	K
Blockly Python																						P				6	
Logic																											
Loops	5 ×	2	53		18	10	*	*	2	8	8	1	12	10	1			1	15200)		0	0				
Text		3				•					28			*1				6	loce		Open						
Math						40 20		*			- 14					*		Δ	uto (omplete	open	N					
List								-									-		uto .	bompiett							r I
Variables		2		1	nit (My	Cob	ot	320	•	Por	С	OM	8 •	Ba	ud	11	Qu	ick	Move	e			122			
Functions				F	orint	C	C	1	+		1	1			3	÷.		loin	ts Co	ntrol	G. 6	Poord An	aloc				
Time			1.7	-	<u> </u>	-	1					1						11		12.1	-	12	gios	24			
Raspi-GPIO	· *	3	55		-25	10	÷.			3	8	10	-23	53	5			12		22.7		14	n seeling Trans	27			
System Status	<	3	\sim			0					\mathbb{R}^{2}				Σ			15		44.4	T	16		35			
WLAN Setting	- ×	3	14		(4)	60	×.	÷	×	2	1	*		43	×.	$\left \mathbf{r} \right $	÷	55		tion Con	+	10	Deed	Canada		R.,	
Basic		4	22			10	87	+		2	2			1		+		000	ruma	tion con	troi:	165	Read	Coords			
ATOM IO		4	14	4		10	41	*	2	1	1				÷	4		X	-	65	· +	rx	-	-124			
Status		1		*	+	•	5	2	t	č.		1	•	•	9	2		У	_	44	+	ry	_	5.2	-	ŧ.	
MDI Control				(*)		*	2		÷	3		(*)			8	*		Z	-	-41	+	٢Z	-	-18.3	-	ŧ	
JOG Control		1	17		*	10	5	ð	3		17			10	5	8											
Setting		8	8			10	*		*	8	8					*											
Servo				Č.		-	20 27					Č.			20												
Gripper		2				2	-	-	_					-													
Coord Control +	. · ·							.~	6																2		-

Figure 3.34 Reading machine angle information

On the premise of turning on communication, left-click the "Read Coordinates" button on the fast movement interface to read the coordinate information of the machine once and update it to display it.

📴 myblockly																											×
Blockly Pytho	n																						•				0
Logic				17						*		17					5										
Loops	11		3	3	.*.		5	5	*		3	3		12	10	5	+		1	1520	0			0			
Text			3	1			10		3	2	3	27			1				_	-1		0					
Math							63	4			2				*3	*	8			lose		Open					
List			1				17	*							10		+		F	Auto	Comple	te)				11
Variables			4	4	6	nit	Mv	Coł	oot	320		Por	tC	ОМ	8 -	Ba	ud	11	0.	ick	Mos						
Functions			1			arint		15		-			1						Qu	IICK	INION	e					
Time			1	3	Ľ			Ľ	1	+		1		1	*	č)	5		Join	ts Co	ontrol:	ତା	Read An	gles			
nme Desmi CDIO		*	1	17	*			*:	*	*					55	5	*	÷	J1	-	12.1	+	J2	-	24	+	
Raspi-GPIO			3	1			5	¢,	*	1	8	1		1	10	5	*		J3	-	33.2	+	J4	-	33	+	
System Status			3	i.t	*		0	*			3	1			*2	*	*		J5	-	11.1	+	J6	-	2	+	
WLAN Setting							*								*		*		Coo	rdina	ation Co	ntrol:	e	Read	Coords	1	
Basic			4				*	*	*		4				*	*	*		v		65	1	EV.		-124	14	
ATOM IO		-	1					1											A		0.5		17		5.0		
Status			1		+	*		1	1	1	č.		1	•		1	2		У	_	44	+	ry	_	5.2	+	6
MDI Control			1		*		*	÷.	2	÷	2		*)	<u>_</u>		*)	2		Z	-	-41	*	rz	-	-18.3	:: 	
JOG Control		2	2	1			50	5	Ċ.	3	12	17			55	5	5										
Setting			2	3			10	*	*	*	8	1		1	10	5		*		t (*	- 083 - B	1. T.		< 3 <u>*</u>		-	1.0
Servo			3	1			0				3	2								1		2	35 - 3	< 2	4 - Y		
Gripper							10	*	*	*	3	+			43	*			00		() () () () () () () () () ()	8 - 8	91.0	- 3	* *	1000	
Coord Control			4	24			-	*																		D	

Figure 3.35 Reading machine coordinate information

On the premise of turning on communication, left-click the mouse

or long press the "-" or "+" button to change the information of each joint or coordinate of the machine, and the changed data will be automatically sent to the machine itself to realize the modification. Machine motion control.

📴 myblockly																									N <u>413</u>		×
Blockly Pytho	n																						•			•	0
Logic																											
Loops	11	1	2	3		122	10	1	*	1	2	3	.*.	120	12	5	*		्रत	15200				~			
Text		1		1			0	1			0	1			10		8		_			0					
Math		2		+		-4	40 	*			3	+			*	*	*	*	(lose		Open					
List			4					*							•				F	AULO C	ompier	e					11
Variables					1	nit	My	Coł	ot	320		Por	t C	OM	8 -	Ba	ud	11	Qu	lick	Mov	e					11
Functions						orin	e Ú	1	1	-		•	1														
Time			2		Ľ			Ľ	IJ				1			2	2		Join	its Cor	trol:	© R	lead An	igles			1
Raspi-GPIO			а 	а 	2										2		۵ 		J1	-	12.1	+	J2	-	24	+	
																			JE	-	33.2	+	J4	-	33	+	
System Status		2	3				40				a.				13				JE	-	11.1	+	J6	-	2	- +	
WLAN Setting			2				22	2		1	(a)	2		1.0	13		1		Co	rdinat	on Coi	trol:	e	Read	Coords		
Basic		2	1	1	-			1			2	14	-			22	÷.		x	-	65	+	rx	-	-124	+	
ATOMIO		ę	3	ġ.	+	+		÷	÷	÷	3	2		-		÷	3		у		44	+	ry	-	5.2	+	
MDI Control			2		÷.,		÷	8		3	ž.		(*)			÷	÷		z	-	-41	+	rz	-	-18.3	+	
IOG Control		1	1	in.			15	5	5		3	12			5	5	5	•	l								
Setting	1.1		2	3		1	53	÷.		.*.	3	3		1	52	5			.4			1. I.				-	
Servo				2			0		3		3	2				Σ	8				10 C	$\kappa = 8$		< - 2	$(\mathbf{x}_{i}) \in \mathcal{X}_{i}$	• •	1.8
Gripper		×.		5			ė?	×.	$(\bar{\pi})$		3		*		÷	×	8		э.	1.00	38) - 43	${\bf x} = {\bf x}$	98 - 6	e 19	$\mathcal{F}(-, \mathcal{A})$		$k \ge 1$
Coord Control		2	4	2	1	(a)	10	÷																		D	- 4

Figure 3.36 Modify and send machine information

7. load

Hover the mouse pointer to the blue icon in the upper right corner of the software, and the "Load" button will appear.

🥃 myblockly																														342				×
Blockly	Python	1																								(•		
Logic																																1 5	•	<u>ه</u>
Loops			1	3	3		120	10	÷	+		3	8	1	0.53	53	5	*		3	3	1	12		5	*	1	3	8	-	1	10	÷.	с - т
Text				3				*3								*		8		3						8		3		1	÷.	0		
Math								*3	*								*5							*3						1		•)	*	
List																• :										*								
Variables				ан 15			nit	My	Cob	ot	320		Por	t C	OM	8 -	Ba	ud	11	520	0 -				е С									
Function	5		1	1			print	E C	1	1	-		1	1			22				12			2	2 2	0 0		8	15	8 6		2	20 - 1 22 - 1	С н
Time			÷.	2	2			_	Ľ									2	с		о 				с	2	÷.	<u></u>	2 	сэ. 				
Raspi-GP	10			a.	8													*		2						*						-		
Custom C	tatus			×.				0	2			×.									÷			0	2			×				0		
MI AN C	tting		34	Эł	34	+	1.40	433	÷	$\left(\hat{r} \right)$	34	×.	34			43	÷.	÷	×.	(R	34			43	×.	÷	98	×.	34			63	÷.	
Basic	ang			2				ŝ.								ŝ.		+			a.			${\cal L}_{i}^{(i)}$									5)-	4
ATOM IC	ĸ			4	14			23	÷		2		14				÷.			1	4				÷.			4	14			.)	2	2
Status		1	÷	3	ę.	*	*		5	2	÷	3	ił.	9	4	•	g	2	ł	3	ł.	3	+	•	ŝ	2	ł	3	ił.	•	4	.(-	E)	
MDI Con	trol					٤,			8		÷	3		٤.			÷	8		3		6	÷		8	8		3		6	•	.(-	-)	
JOG Con	trol			1	17			20	5	3	*	12	17			55	5	5		2	1			5	5	5		2						5 F
Setting				2	3		120	53	5	+	.*.	3	8		12	5	5		1	3	3		10	10	5			2	8		-22	-	her	- 4
Servo				3	2			0	\mathcal{D}	3		9	1					8		3	Ċ.			0	Σ	8		3	2			0	* () ()	8
Gripper			×	3	54			63	×.	$\langle \hat{\pi} \rangle$	9	3	1			÷	÷.	÷	3	3	3			÷	×.	÷	98	3	14					e -
Coord Co	ontrol		1	24	0		(a))	60	÷.,	+	0																					þ.:	÷	4

Figure 3.37 shows loading 1

🧧 myblockly																												31	3			×
Blockly Python																								(tun					<
Logic	1.1																															<u>.</u>
Loops	- ×	3	53		1983	10	5	*	2	3	8	1	025	12	5	*	*	8	3	1	12	t)	5	*	1	1	Ð	L	bac	٦	•	8
Text	- ×	3	19			10			2	9	1			*);	2	8		3	2);	2	8	3	3	-	c		_		
Math					1.000	4)) 	*	÷	*	3	+			*	*	*		3	34			*	*	*	98		<u></u>	2	ave		*	
List		4						*						•	*	1							1	*			0	S	ettin	g		
Variables				1	nit (My	Cok	oot	320	•	Por	t C	OM	8 -	Ba	ud	11	520	0 -			**									1	
Functions				r	orint	Ľ	1	1			1	1							12				2 2	<u>_</u>				1			2 2	С.
Time		2	1				Ľ		т							2	<u>_</u>		ः 	сэ. 		1	С. 	2	<u>_</u>	<u>_</u>	ः 	<u> </u>			С. 	
Raspi-GPIO		2														*		2						*		2	2.4 2.4					
		e.																								æ						
System Status			14		1943	63	×.	÷.	s.	×.	14			8	41	÷		×				43	1	÷	98	×			343	43	1	
WLAN Setting	1.1	2	2		1	19		+		2	2		-	12		4			4		1	10				2	2		10	- (6	5×.
	- a	1	12	1			÷	$\frac{1}{2}$	\mathbb{Q}		14				÷.	÷		2	4			23	÷.	÷		2	12				Ŷ	÷.
Status	- ÷	-	2	+	÷.	•	÷	÷	÷	ŝ.	÷	÷		•	÷	3	÷	3	÷	÷	4	÷	÷	÷	÷	÷	2	+	÷.)	. (+)	Ġą –
MDI Control	1.1	3		(÷.)		÷	8		÷	ŝ.		(±.)			8	ŝ		3		6	(\cdot)		8	ŝ		3		(÷.)	.+)	. (D)	÷.,
IOG Control			17			10	5	3	3		17			15	5	5			1	3		19	5	8			12				Ļ	÷.
Setting	: *	3	55		022	53		*		3	3	1		52	8			3	3		15	12	5			3	58		12		liber	
Servo		3	12			0		(8)		9	2					8		3	2				\hat{x}	8	8	3	2		10	•)		8
Gripper		3	24			63	\mathbf{x}_{i}^{i}	÷	×	9	1			63		÷	9	2	34			÷		×	98	2	54	*				8
Coord Control +		9	2	1	(a))	÷2	÷																							D	-	1

Figure 3.38 shows loading 2

Clicking the "Load" button will open the external file. You can select the Json format file that needs to be imported from the folder. This json file saves the building block information. By importing this file, you can quickly generate building blocks and overwrite the building blocks in the

26

current editing area.

myblockly					×
Blockly Python Load blockly json			▶ 运行 ×		0
逻辑 循环 ← → × ↑ <mark>■</mark> > 桌面		✓ C 在桌面中搜索	م		
又本 组织 → 新建文件夹					÷
刻字 列表	名称	修改日期	2	•	
交量					
时间			. II	• 7	5
Raspi- 🔤 文档 🖌					2.
底座 【图片 ,	1〕280pi-吸泵案例.json	2023/5/30 17:17 JSON 源文	4	. (+	
→ 小心 角度和 文件名(M): 2 点动控 设置	t80pi-吸泵案例.json	〜 [JSON (*.json) 打开(Q)	~ 取消 		
伺服电机				*	

Figure 3.39 Loading Json file

8. save

Hover the mouse pointer over the blue icon in the upper right corner of the application, and a "Save" button will appear.

🥃 myblockly																													25	3			×
Blockly Pyti	non																								(F	tun					<
Logic																																	<u>.</u>
Loops		1	3	8	1		5	÷.	*	2	3	3	1	1	52	5	*		8	3		1	12	5	+		2	+	L	bac		5	÷.
Text			3	1			10	*		2	3				1	2		3	0	1			1	2					c	2140		*	
Math					*		- 6	*							-		*						-	*				Ľ		ave		*	
List			1														*								*		1	0	S	ettin	ıg		*
Variables						nit (My	Cob	oot	320	•	Por	tC	OM	8 -	Ba	ud	11	520	0 -							*						
Functions			ŝ.			orint	t D	1	1			•	1			32				12				2 2	2	1	1					13 13	<u>с</u>
Time		С.	1					1		T				1		<u></u>	<i>.</i>	<u></u>	2	а 	<u></u>	<u>_</u>		۲	1	С.	1	<i></i>	<u>е</u>	<u></u>		٥ -	
Raspi-GPIO		с 	а 		2										2		с 	с 	а а	23 24	2				÷		а 		2		1		
		*	ю ж				-	- 		*					-			*	2	50 24			*1	- 			 					*	
System Statu	S		2				-								13								13										
WLAN Settin	9	1	4	24			13	-		2	2	24			13	-		2					13		4		2				- 1	6	
Basic			1	12				2			1	12					2			1			10	2	2		1	12				Ÿ	
		÷	4		+			÷	2	÷	÷			÷.		-	2	÷	2	2		÷.,		÷	2	÷			+	-	. (+))
Status		1			+			2	ŝ		ŝ.		4			3			2		4	÷		3	2	1			4	+	. (ž	
INDI Control								•																							. \	Ļ	
Sotting			3				1	*	+		3	8			12		+				-		÷	÷	+		3				nd	Inter	
Sorvo			3			100	0													×.			0	2			3	24			-	*:	
Grinner		92	3	3		190	63	÷	÷	98	R				÷	×	÷	93	R	34			ē.	÷	$\left \cdot \right $	92	2			1.40			
Coord Contro			2	2	1	(a))	12	÷.,																							D.,	27	4

Figure 3.40 Saving building blocks

Clicking the "Save" button will open an external folder and save all the blocks in the current blockly editing area to a json file.

📴 myblockly				-		\times	
Blockly	Python			▶ 运行		<	
逻辑	Save blockly json			×			
循环	← → ∨ ↑ 📕、桌面、	~ C					
文本 数学	组织 ▼ 新建文件夹			I • (?)			
列表	▲ 主文件夹 名称 ^	修改日期	类型 ATTA	大小	e - e	• •	
 变量 方法		2022/7/8 16:00	文件夹				
时间		2023/5/30 16:35	JSON 源文件	8 KB			ſ
Raspi-G		2023/5/30 16:42	JSON 源文件	9 KB): <u>:</u>	
底座		2023/5/30 17:17	JSON 源文件	9 KB	• •(-	÷.	
原子 状态	- 文件名(<u>N</u>): test			~	: :C	Э.	
角度和坐	保存类型(I): JSON (*.json)			~	-		
点动控制 设置	∧ 隐藏文件夹		 保存(<u>S</u>)	取消		• •	
伺服电机							~

Figure 3.41 Save file

9. set up

Hover the mouse pointer over the blue icon in the upper right corner of the application, and the "Settings" button will appear.

📴 myblockly																														250				×
Blockly	Python																									(► R	lun				(
Logic	4																																	ð -
Loops		1		2	3		1	10	5	*	2	2	8	1	12	10	1	*	2	3	2		10	t)	5	*	1	2	+	Lo	ad		÷.	× 1
Text		i -						•									2				1			*)	2				J.	C.	1/0			÷ .
Math		i -						-	*								*							*3					_	30	ive			
List		E .		2												•										*			ø	Se	ettin	g		
Variables		E .				1	nit	My	Cob	ot	320	•	Por	C	OM	8 -	Ba	ud	11	520	0 -													
Function	S			1			orin	e C	1	1	-		1	1		2	22				12				2	С С		1					2	ίn.
Time				2 			<u> </u>	_	1					1				2) *		े 					с 	ः •		<u></u>					- -	
Raspi-GP	10			2														*		a						*		æ						
Curtana C								0								-								0		8		3						
System S	tting		×.	×	34			e	×	(\bar{r})	эł	×.	34			e	×.	÷	95	×.	34			e	×.	÷	98	3	14	+		40	1	
Rasic	ung			4	2			\hat{c}^{i}			\sim		2		1	i.				2	2			÷?			2	2	2		1	• .(6	
ATOM IC	IS .	Ŀ		4	1	-			÷		\mathbb{Q}		14	1			÷		2	4	4	1		1	÷.	÷		4	12	-		.)	Y.	2
Status		ŀ .	÷	3	ġ.	+	+	•	÷	÷.	÷	3	ł	$\left[\mathbf{r} \right]$	•	•	5	2	÷	3	ł	Ð	•	÷	ŝ	3	÷	÷	1	+	+	.(-	+)	2
MDI Con	trol	Ŀ.,		3		٤.		÷	÷		÷	3		6			8	8		3		٥.	+		8	8		3		۰.		.(-	-	1
JOG Con	trol	Ŀ	1	2	17			25	5	3	3	12	17			55	5	5		2				53	5	5	3	2					÷	5 F
Setting		Ŀ		3	5	1	12	53	5	*		3	3	8	623	53	8		3	3	3	1	12	12	5			3	53		12		line .	
Servo				3	12			0			2	9	1							3	1					8	8	3	19				*	8
Gripper					14			60	÷.		×	9	1			43	*	(e)	(4)		1			43		8	9	9	14	*			**	8
Coord Co	ntrol .			-	20			12	÷.	(#)																						p.:	÷:	÷

Figure 3.42 Setting button

Click the "Settings" button with the left mouse button, and a settings pop-up window will appear.

📴 myblockly						3 <u>103</u>		×	:
Blockly Python				▶ RI	in		::	6	D
Logic									
Loops		1							
Text									
Math		- -							
List	Language	1							
Variables	English V								
Functions	Theme								
Timo	Classic V	1							
Pasni-GPIO		10 A							
Kaspi-Orio	Version: v1.5.3 Click to view the latest version	n M							
System Status									
WLAN Setting	pymycobot version: 3.3.5								
Basic									
ATOM IO									
Status	Cancel Ok								
MDI Control		•							
JOG Control									
Setting									
Servo									
Gripper									
Coord Control +									

Figure 3.43 Setting pop-up window

The settings pop-up window includes setting the software's language, theme, current software version number, checking for version

Set the language: Click the language drop-down box with the left mouse button to select "Simplified Chinese" or "English" language, and then click "Confirm" to switch the software language.

📴 myblockly						3 <u>1.0</u>	C	1	×
Blockly Python				► F	Run		::		9
Logic									*
Loops		1							1
Text		P.1							
Math		10 C							
List	Language	ר							
Variables	English	*1							
Functions	Theme								
Time	简体中文								
Pacpi CBIO	English	82. 							
Kaspi-Grio	Version: v1.5.3 dli								
System Status		-							
WLAN Setting	pymycobot version: 3.3.5								
Basic								Ŷ	
ATOM IO									
Status	Cancel Ok								
MDI Control		1							
JOG Control									
Setting							- 10		
Servo									
Gripper									
Coord Control -	1 1 1 C							4.) -	

Figure 3.44 Set language

Set the theme: Left-click the theme drop-down box to select "Classic" or "Dark" theme, and then click "Confirm" to switch the software theme.

🧧 myblockly																				342			×
Blockly Python																	(R	un				9
Logic																							
Loops			1																				
Text			1.0																				
Math																							
List				La	angua	ige						aliak											
Variables			Init								EI	igiisi											
Functions			prir	Th	neme					ſ	CI	annia		-									
Time		L									U	assic											
Raspi-GPIO				1/-						CIE													
				VE	ersior	<u>i</u> (v1.5.	3		Ci	C	lassi	iC										
System Status						hat			0.0		D	ark											
WLAN Setting			242	ру	myco	JODU	versi	on:	3.3	5.5												5	
Basic			1.4																				
ATOM IO Status			14									ana a	eren.	100									
MDI Control			4									Car	icel	OK									
							-								-								-
Setting																					-	line .	
Servo																							*
Gripper																							-
Coord Control -																							a. 3

Figure 3.45 Setting the theme

Check for version updates: Click "Click to view the latest version" with the left mouse button. The browser will open and jump to the software download interface of the official website. Here you can check whether there is a new version of the software.

📴 myblockly						3	×	
Blockly Python				•	Ru		0	
Logic								
Loops		1. A.						
Text		*-)						
Math								
List	Language							
Variables	English							
Functions	prir Theme							
Time	Classic							
Rasni-GPIO								
Ruspi or io	Version: v1.5.3 Click to view the latest version							
System Status								
WLAN Setting	pymycobot version: 3.3.5							
Basic								
ATOM IO								
Status	Cancel Ok							
MDI Control								
JOG Control								
Setting								
Servo								
Gripper								
Coord Control -								

30