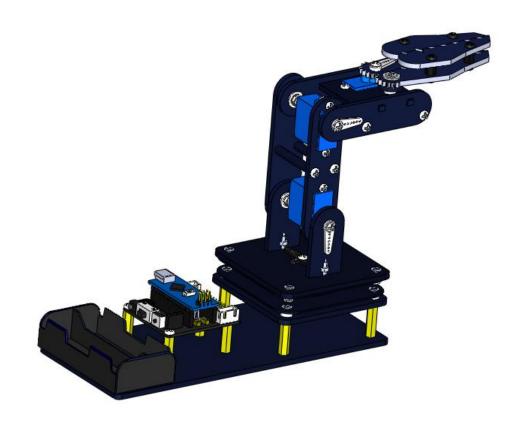


Assemble the robot arm



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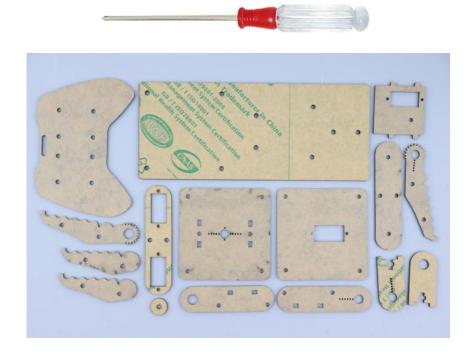
After-sales: If you have any question or suggestion about our company, products or manual, please contact us at jex-spt@outlook.com

Components List

	NANO board*1		NANO shield*1
	USB Cable*1		Joystick module*2
	A pair of Acrylic sheet		SG90 Servo*3
this is a series of the series	18650 battery case*1		MG90S Servo*1
	turntable*1		DuPont line*8
@	P1.2*4mm self-tapping screw*17	(1) 130 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	M2*8mm round head screw *8
	M2 nut*8	(Eastername)	M3*6mm round head screw*20
4	M3*10mm round head screw*10		M3*10mm countersunk head screw*2
	M3*8mm countersunk head screw*6		M3*12mm countersunk head screw*4
	M3*18mm countersunk head screw*1		M3 mm nut*12
	M3 mm self-locking screw*7		M3*20mm copper column*4
	M3*30MMAluminium column*2		M3*37MMAluminium column*2
0	Φ 3*3mm nylon column*12		M3*6 black nylon stud*4
Cimmum	M3*6 black nylon screw*8		ф3*8*4 flange bearing F693ZZ*4
	M2 Phillips screwdriver		M3 Phillips screwdriver
5 8 BB 6 C	5.5-4 spanner	0	M3 Flat pad*3

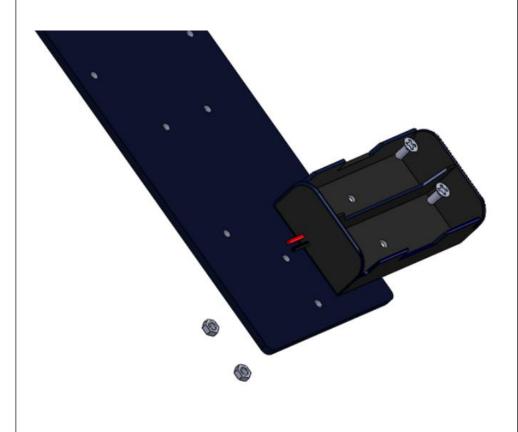
Start assembly

1. Before assembly, we need to use a screwdriver to peel off the acrylic sheet



Step 1: Assembling the Battery Box		Tool:
Need to prepare:		
acrylic plate A	1	
the Battery Box	1	(1) (M) (M) (M) (M) (M) (M) (M) (M) (M) (M
M3 * 8 countersunk head screw	2	
M3 nut	2	

<u>Demo:</u>



Use M3 * 8 countersunk head screws and M3 nuts to install the battery box on the structure A;

Pay attention to the installation direction of the battery box;



Step 2: Assembling the M3 * 20MM hexagon copper pillar

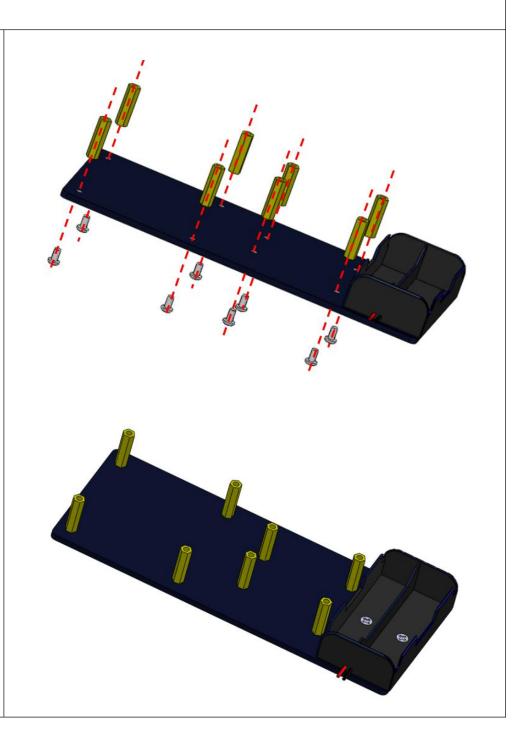


Need to prepare:

M3 * 20MM hexagon copper pillar	8	
M3*6 mm nut	8	
Step 1 structure	1	

Demo:

Use M3 * 6MM round head screws to install M3 * 20MM hexagonal copper pillars on structural member A;



Step 3: Assembling nano board and nano shield

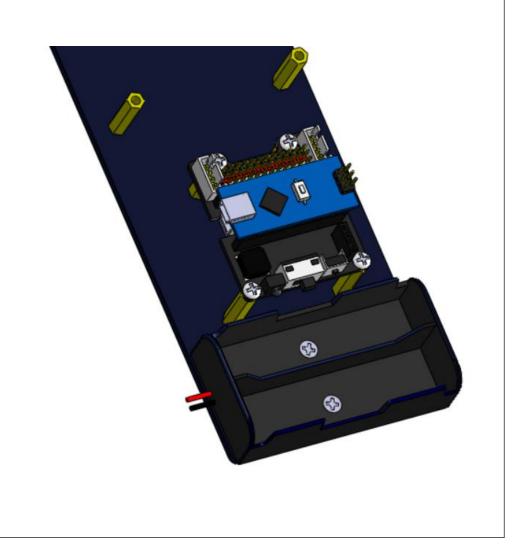


Need to prepare:

M3*6mm round head screw	4	TTTT
Nano board	1	
Nano shield	1	
Step 2 structure	1	

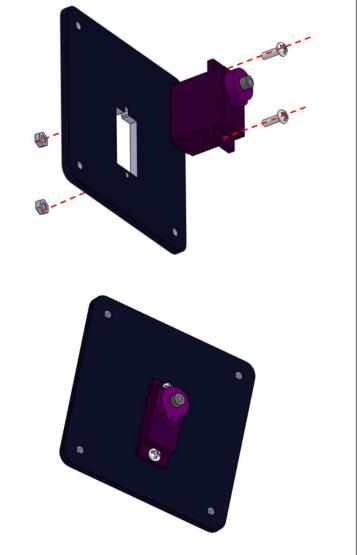
<u>Demo:</u>

Use M3 * 6MM round head screws to fix NANO and NANO expansion board on structure A;



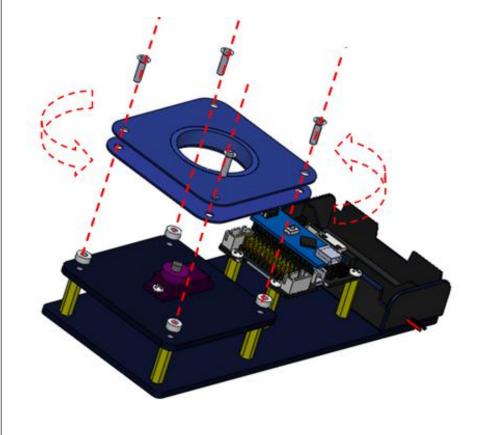
Step 4: Assembling the MG90 servo Tool: Need to prepare: Structure B 1 MG90 servo 1 2 M2 mm nut M2*8 round head screw 2 <u>Demo:</u>

Use M2 * 8MM round head screws and M2 nuts to install the MG90 servo on the structural member B;

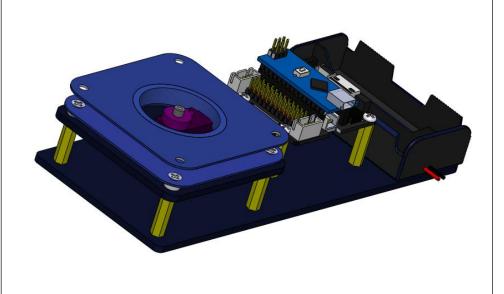


Step 5: Assembling the turntable structure A	, structure B,	Tool:
Need to prepare:		
Step 3 structure	1	
Step 4 structure	1	
turntable	1	
φ 3*3mm nylon column	4	
M3*12mm countersunk head screw	4	

<u>Demo:</u>



Use M3 * 12 countersunk head screws to fix the turntable, structure B, and nylon post on structure A;



Tool:

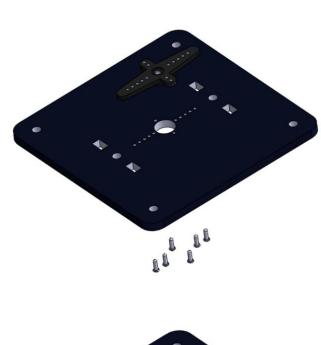
Need to prepare:

Structure C	1	
MG90 servo cross	1	
P1.2*4mm self-tapping screw	6	0

<u>Demo:</u>

Use M1.2 * 4 self-tapping screws to fix MG90 servo cross on structural member C;

Pay attention to the installation direction of MG90 servo cross





Step 7: Assembling Structure D, Structure E and

Structure C

Tool:

Need to prepare:

Structure D	1	+
Structure E	1	+
Step 6 structure	1	
M3*10mm countersunk head screw	2	
P1.2*4mm self-tapping screw	3	•
M3 nut	2	
Servo arm	1	00000

Demo:

Use M1.2 * 4MM self-tapping screws to fix the servo arm on the structure D;

Pay attention to the direction of servo arm





Use M3 * 10MM countersunk head screws and M3 nuts to fix structure D and structure E to structure C;
Pay attention to the installation direction of structure D and E;





Step 8: Assembling Step 7 Structure and Step 5

Structure

Tool:

Need to prepare:

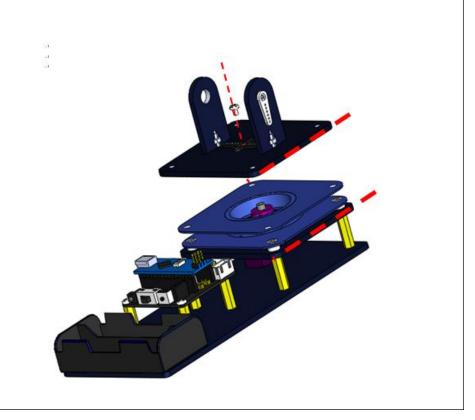
Step 7 Structure	1	
Step 5 Structure	1	
MG90 Servo Screw	1	

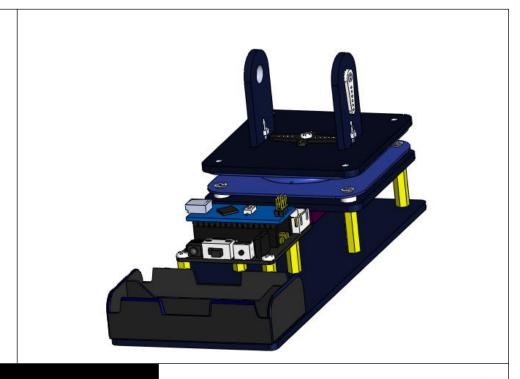
Demo:

Use MG90 servo screw to install Step 7 Structure on the servo of Step 5 Structure;

note:

- 1. Pay attention to keep the structural parts B and C parallel;
- 2. Make sure the steering gear has been adjusted to the specified angle





Step 9: Assembling Structure C and turntable

Tool:

Need to prepare:

Step 8 Structure 1 M3 * 8 countersunk head screws 4 M3 self-locking nut 4

<u>Demo:</u>

Use M3 * 8 countersunk head screws and M3 self-locking nuts to fix structure C on the turntable;

The self-locking nut cannot be locked too tightly, as the turntable needs to rotate smoothly.



Step 10: Assembling Structure F and SG92 Servo

Tool:

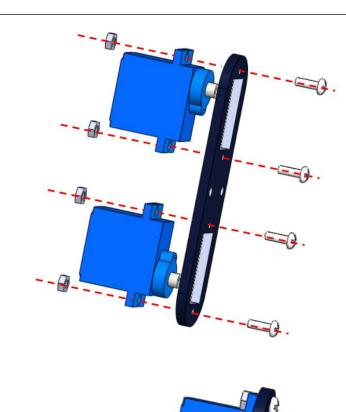
Need to prepare:

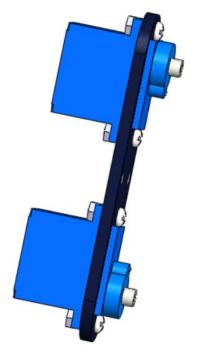
Structure F	1	
M2*8mm round head screw	4	1 Mandanapadan
M2 nut	4	

<u>Demo:</u>

Use M2 * 8MM round head screws and M2 nuts to install the servo on the structural part F;

Note the install direction of the servo;





Step 11: Assembling Structure G and Structure H

Tool:

Need to prepare:

Structure G	1	
Structure H	1	
Step 9 Structure	1	
φ3*8*4 flange bearing F693ZZ	2	
M3 mm self-locking screw	2	
M3*10mm round head screw	2	

Demo:

Use M3 * 10MM round head screws and M3 self-locking nuts to fix structure G, structure H and bearing;
Pay attention to the installation order of structure G, structure H, and bearings;



Step 12: Assembling Step 11 Struc	ture and Step 10	
Structure		Tool:
Need to prepare:		
Step 11 Structure	1	
Step 10 Structure	1	
SG90 servo screw	1	

<u>Demo:</u>

Keep structure D and structure F parallel, shown by the red dotted line;



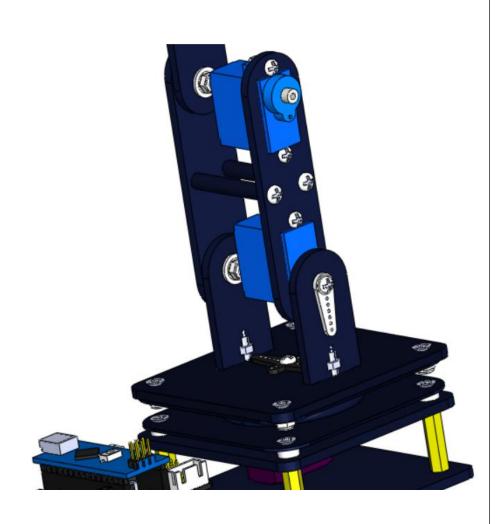
Need to prepare:

Step 12 Structure	1	
M3*30MM aluminium column	2	
M3*6mm round head screw	4	

<u>Demo:</u>



Use M3 * 6 round head screws to install the M3*30MM aluminium column on the step 12 Structure;



Step 14: Assembling Structure I and servo arm

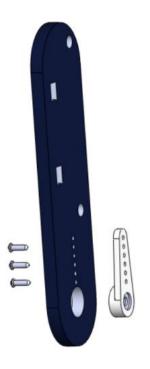
Tool:

Need to prepare:

Structure I	1	
P1.2*4mm self-tapping screw	3	-
servo arm	1	(000000)

<u>Demo:</u>

Use M1.2 * 4 self-tapping screws to fix the servo arm on the structure I; Pay attention to the mounting direction of the servo arm





Tool:

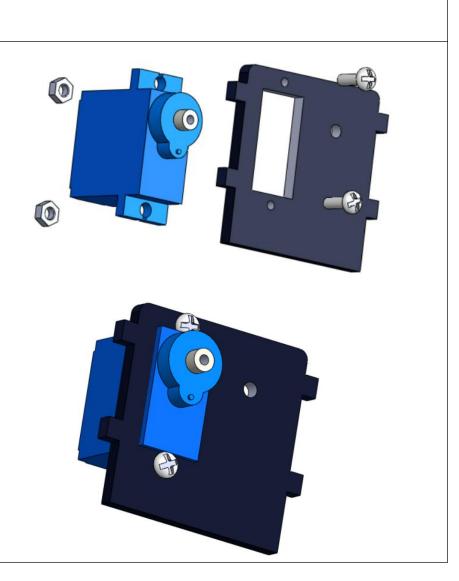
Need to prepare:

Structure J	1	
SG90 Servo	1	To A Parties To the Control of the C
M2*8mm round head screw	2	* 13 00000000000
M2 nut	2	

Demo:

Use M2 * 8MM round head screws and M2 nuts to install the servo on the structure J;

Pay attention to the installation direction of the servo;



Structure and Step 15 Structure

Tool:

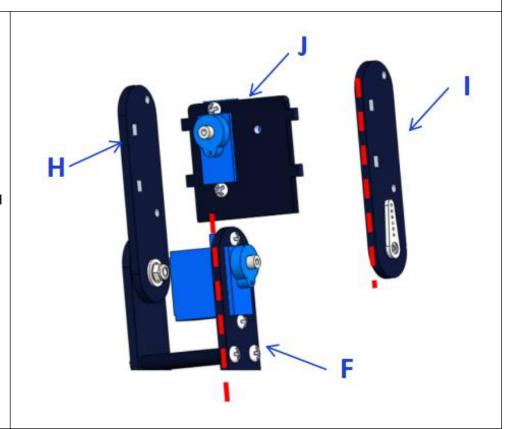
Need to prepare:

Need to prepare:		
Step 13 Structure	1	
Step 14 Structure	1	© 20000
Step 15 Structure	1	
M3*37MM Aluminium column	2	
M3*6mm round head screw	4	Emme Emme
Servo screw	1	

Demo:

Assemble the four parts together as shown on the right

- 1. Stuck structure J between structure H and structure I
- 2. Note that the steering shaft of structure F is connected to the steering arm of structure I



Assemble the four parts together as shown on the right

- 3. Stuck structure J between structure H and structure I
- 4. Note that the steering shaft of structure F is connected to the steering arm of structure I







Step 17: Assembling the left finger of the hand

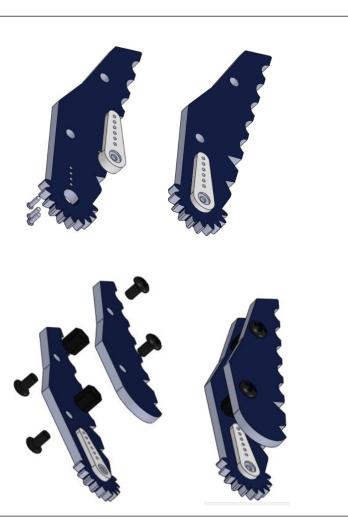
Tool:

Need to prepare:

Structure K	1	
Structure L	1	
Servo arm	1	000000
P1.2*4mm self-tapping screw	3	0
M3*6 black nylon stud	2	
M3*6 black nylon screw	4	TTTT

<u>Demo:</u>

Pay attention to the mounting direction of the servo arm;



Step 18: Assembling right finger of the hand

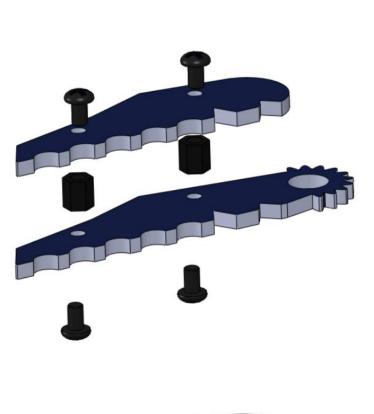
Tool:

Need to prepare:

Structure M	1	
Structure L	1	
M3*6 black nylon stud	2	
M3*6 black nylon screw	4	TTTT

Demo:

Use nylon screws and nylon studs to fix the structure L on the structure M;





1

2

3

1

1

Structure N

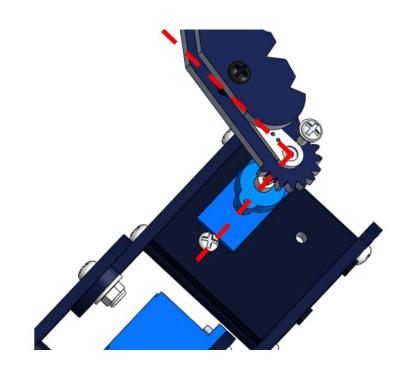
φ3*8*4 flange bearing F693ZZ

M3 Flat pad

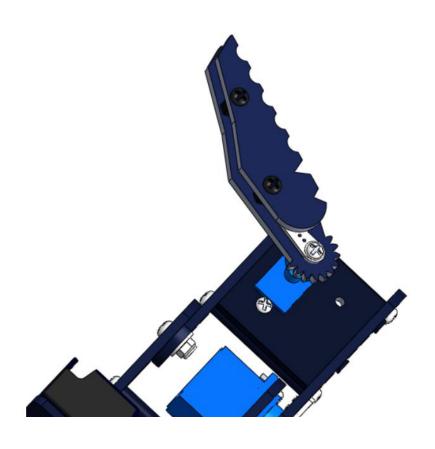
M3*18mm countersunk head screw

M3 mm self-locking screw

Demo:



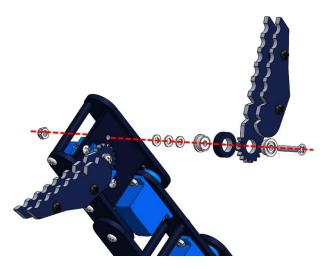
Use servo screw to fix the left finger to the servo shaft.



Use M3 * 18 countersunk head screws and M3 self-locking nuts to fix the bearing, right finger, structure N, and Flat pad on structural part J

Note:

- 1. Install in order;
- 2. Be careful not to damage the gear;







Step 20: Assembling the joystick controller

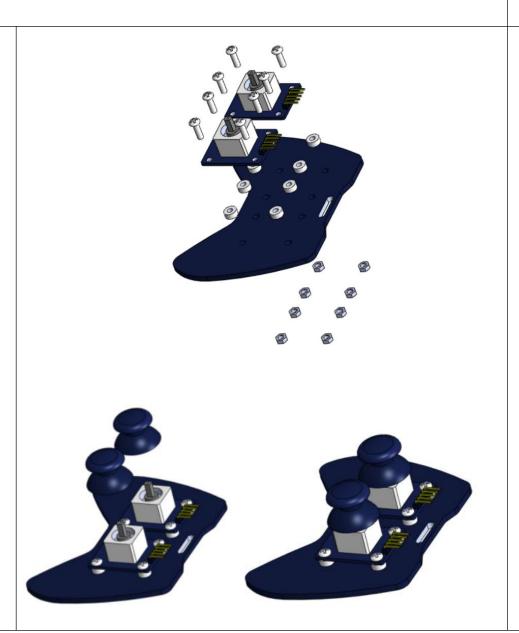
Tool:

Need to prepare:

Structure K	1	
Structure L	2	
M3*10mm round head screw	8	•
N3 nut	8	
φ 3*3mm nylon column	8	6

Demo:

Pay attention to the mounting direction of the servo arm;



Congratulations, a cool robot is done.



Wiring diagram

