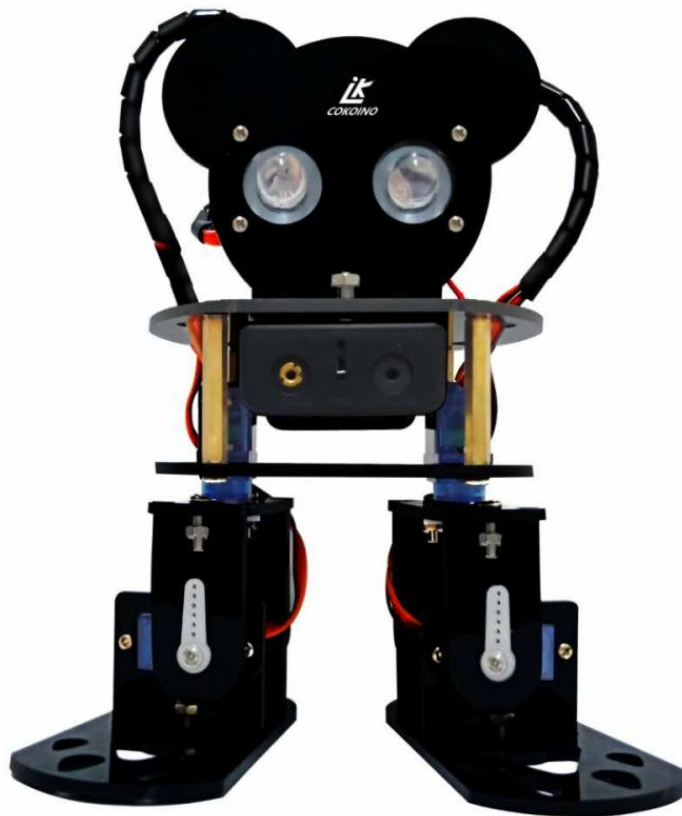


Assembly of Dancing Robot



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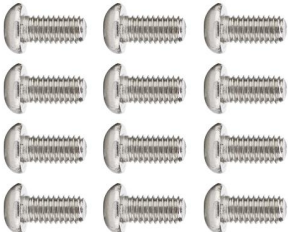











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Parts List

	NANO board*1		NANO shield*1
	Bluetooth module*1		infrared remote control*1
	RGB LED module*1		USB Cable*1
	18650 battery case*1		A pair of Acrylic sheet
	P1.2*4mm self-tapping screw*36		M1.6*10mm round head screw*4
	SG90 Servo*4		M3*30mm copper column*4
	M3*12mm countersunk head screw*2		4PIN -70mm cable*1
	M1.6 nut*4		φ 3*3mm nylon column*4
	M3*10mm countersunk head screw*7		M2*8mm round head screw *8
	M2 nut		M3*10mm copper column*4

	M3*6mm round head screw*12		M3*10mm round head screw*4
	M3*6mm countersunk head screw*4		M3 nut*11
	M3 self-locking screw*2		φ3*8*4 flange bearing F693ZZ*2
	4mm black winding tube(20cm)		cross sleeve*1
	M2 Phillips screwdriver		M3 Phillips screwdriver

Note:Please initialize the servo motor before installation.

Start assembly





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



Step 1: Assembling the LED light module

Tool: 

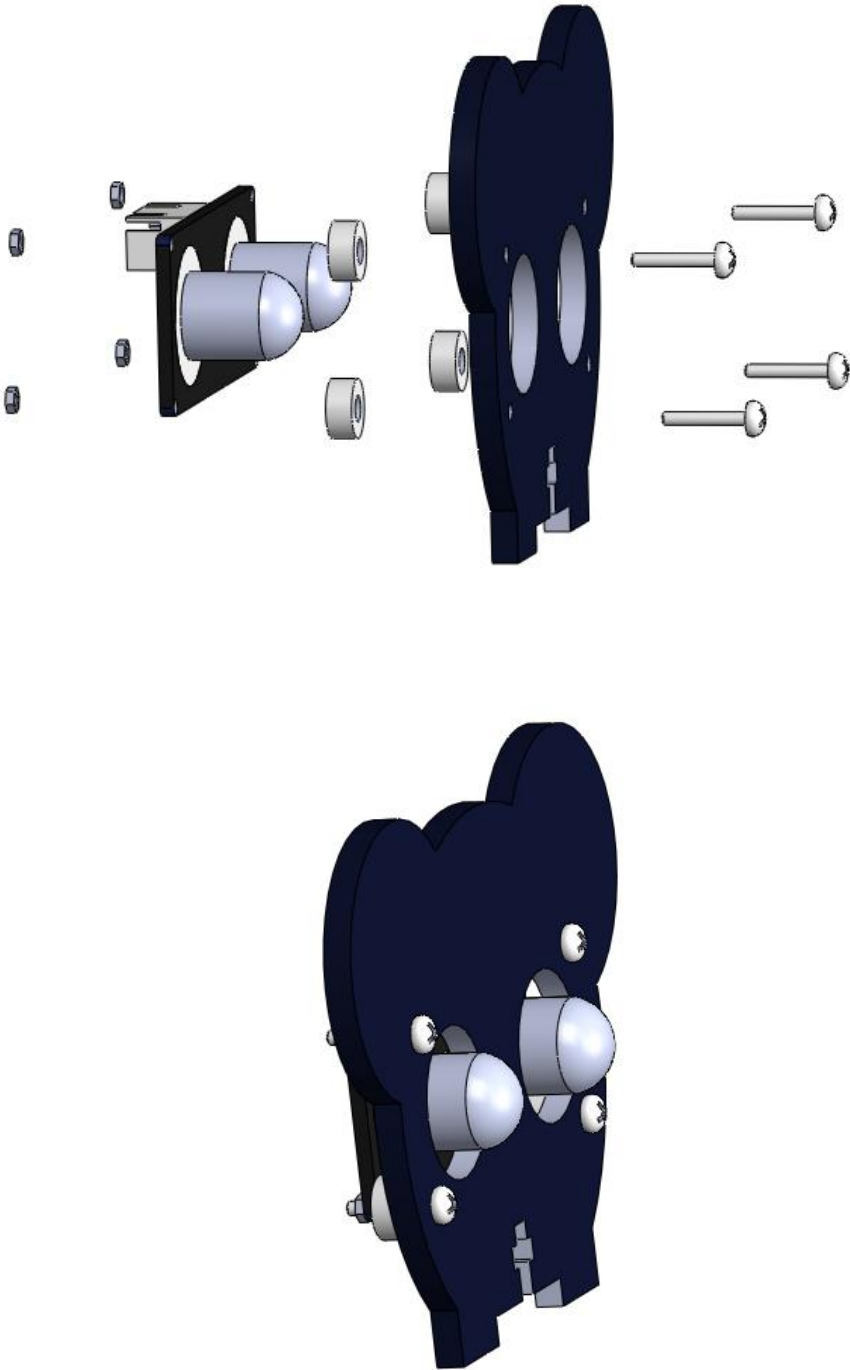
Need to prepare :

acrylic plate A	1	
φ3*3mm nylon column	4	
M1.6*10mm round head screw	4	
M1.6nut	4	

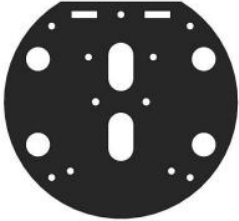



Demo :

According to the instructions of the picture, assemble the LED module, the nylon column and the acrylic plate A in sequence, and fix them with the M1.6*10 round head screw and the M1.6 nut;

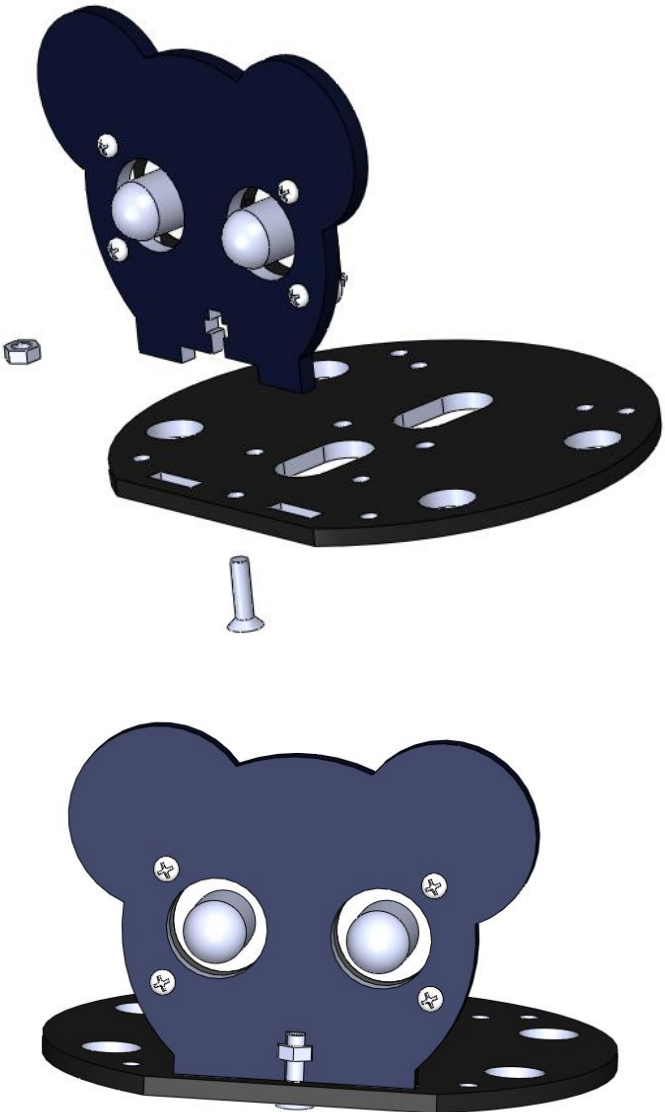
Note that the cable interface of the LED module is on the top



Need to prepare :

acrylic plate B	1	
M3*10mm countersunk head screw	1	
M3 nut	1	
Step 1 structure	1	




Demo :

<p>According to the instructions of the picture, assemble acrylic plate B and Step 1 structure with M3*10mm countersunk head screw and M3 mm nut</p>	
--	--

Step 3: Assembling M3*10
hexagonal copper column

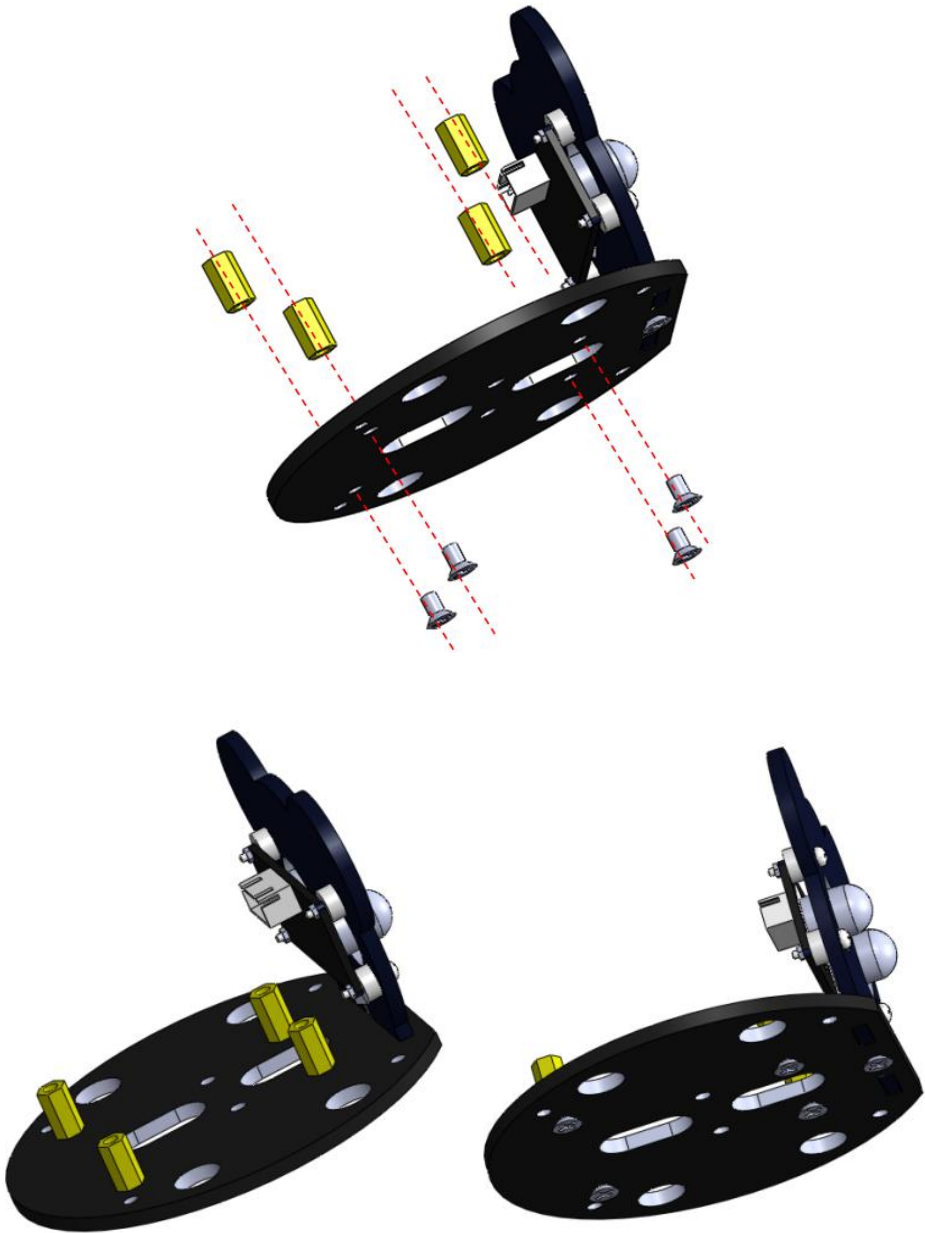
Tool: 

Need to prepare :

M3*6mm countersunk head screw	4	
M3*10mm copper column	4	
Step 2 structure	1	

Demo :




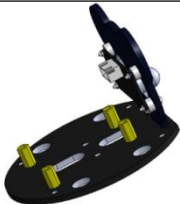
Fix the coupling to the motor shaft using
a set screw;
Note that the step of the coupling
corresponds to the step surface of the
motor shaft



Step 4: Assembling the wheels

Tool: 

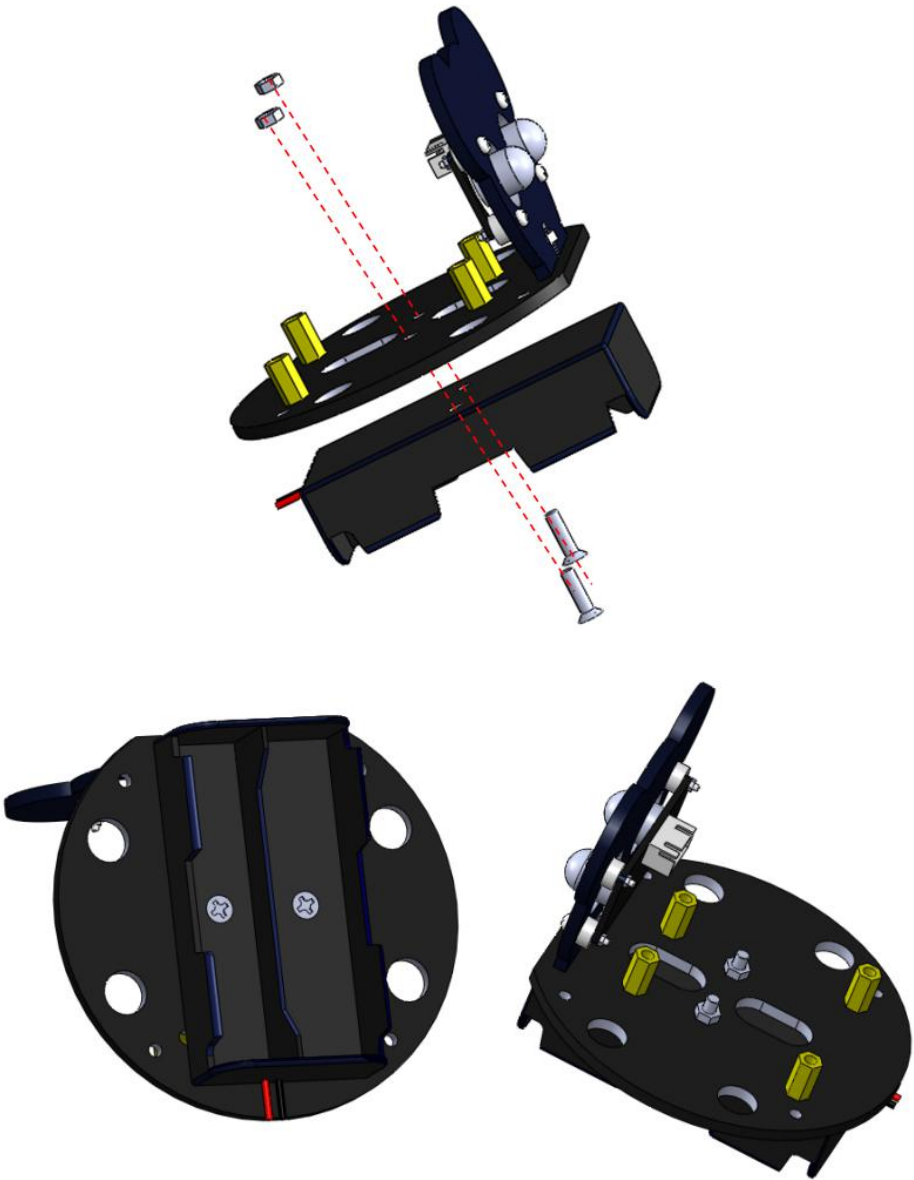
Need to prepare:

18650 battery case	1	
M3 nut	2	
M3*10mm countersunk head screw	2	
Step 3 structure	1	

Demo:

Install the 18650 battery case on the Step 3 structure using the M3*10 countersunk screws and the M3 nuts;


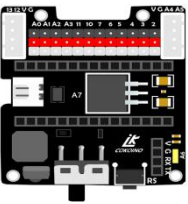

Please pay attention to the installation direction of 18650 battery box



Step 5: Assembling the NANO shield

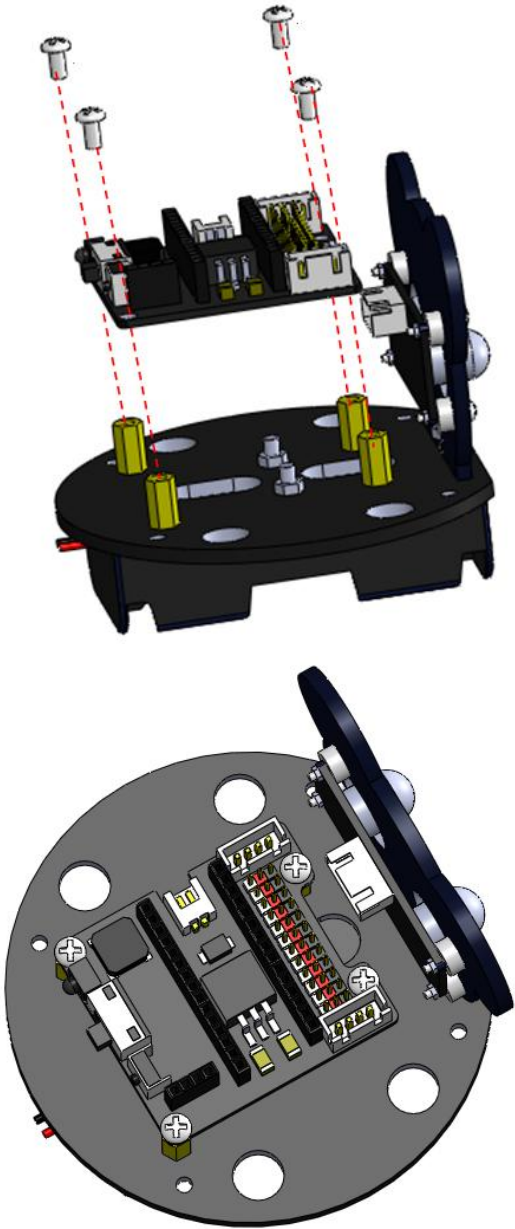
Tool: 

Need to prepare:

M3*6 round head screw	4	
NANO shield	1	
Step 4 structure	1	

Demo:





Install the NANO shield on the step 4 structure using M3*6 round head screws;



Step 6: Assembling the servos of the robot's legs

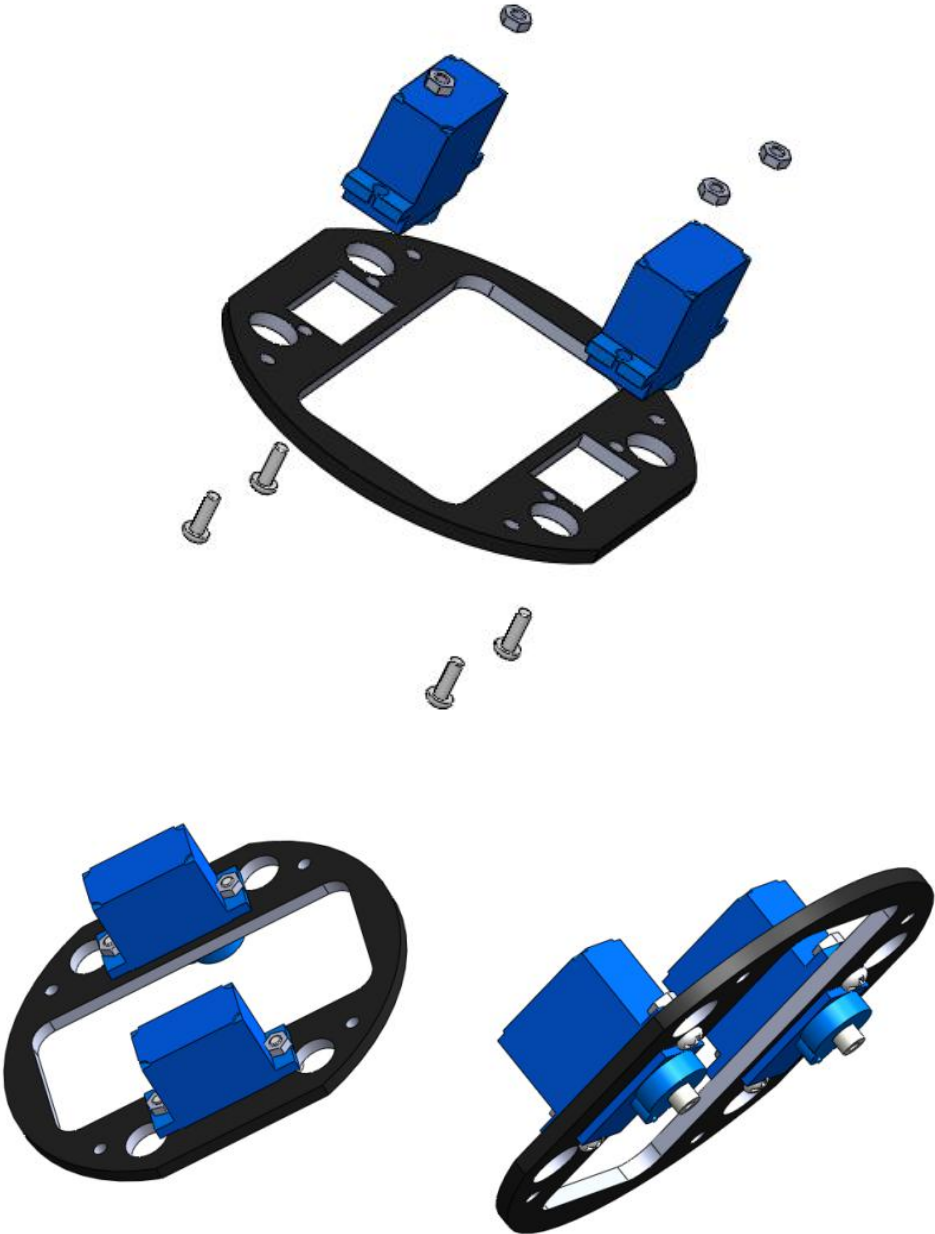
Tool: 

Need to prepare :

Acrylic Structure c	1	
M2*8mm round head screw	4	
M2 nut	4	
Servo	2	

The servo is mounted on the structural member C using M2*8 round head screws and an M2 nuts;



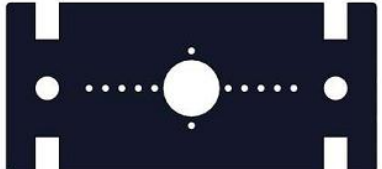
Note that the installation direction of the servo need to be same.



Step 7: Assembling steering gear cross bracket

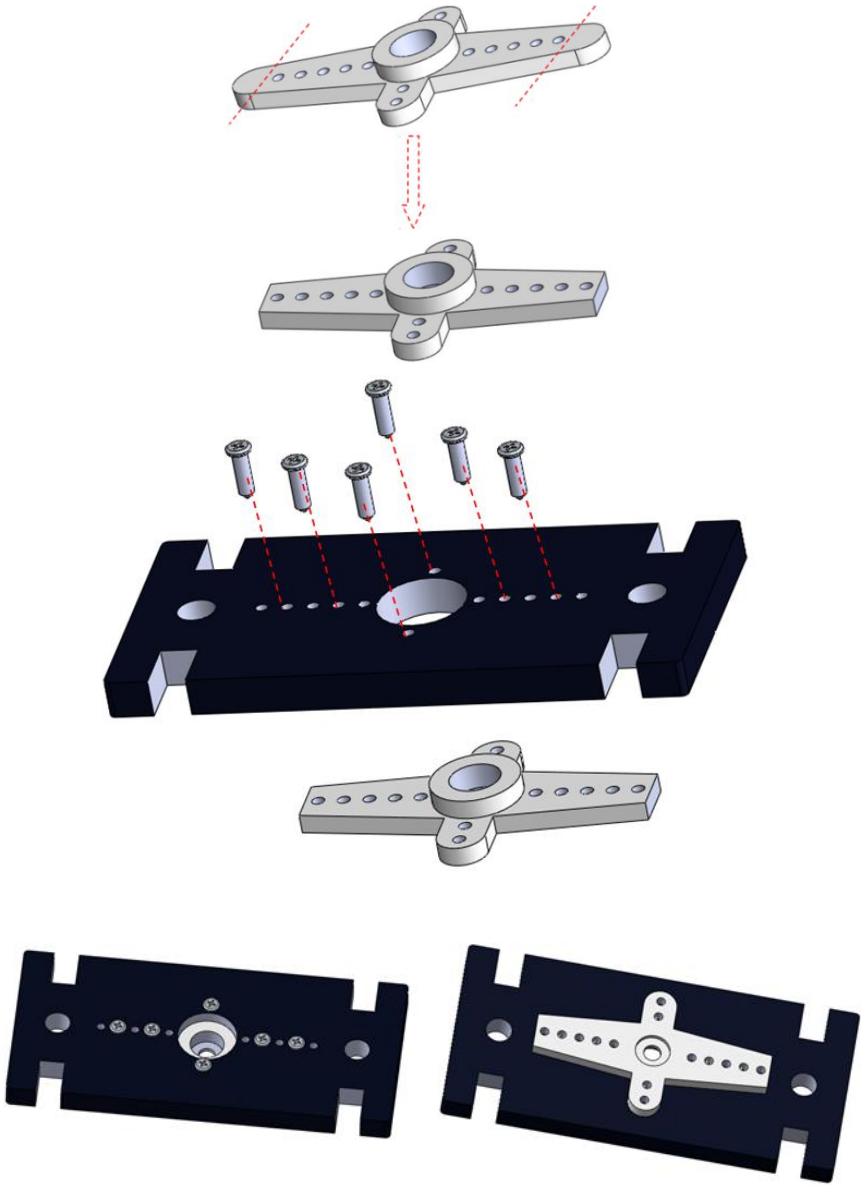
Tool: 

Need to prepare:

Rudder cross bracket	2	
P1.2*4mm self-tapping screw	12	
Acrylic Structure d	2	

Demo:

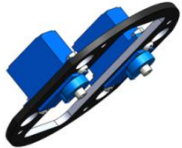


- 1. Use scissors to cut off the excess along the red dotted line
- 2. Please pay attention to the installation direction of the cross



Step 8: Assembling the servo bracket of the robot's leg

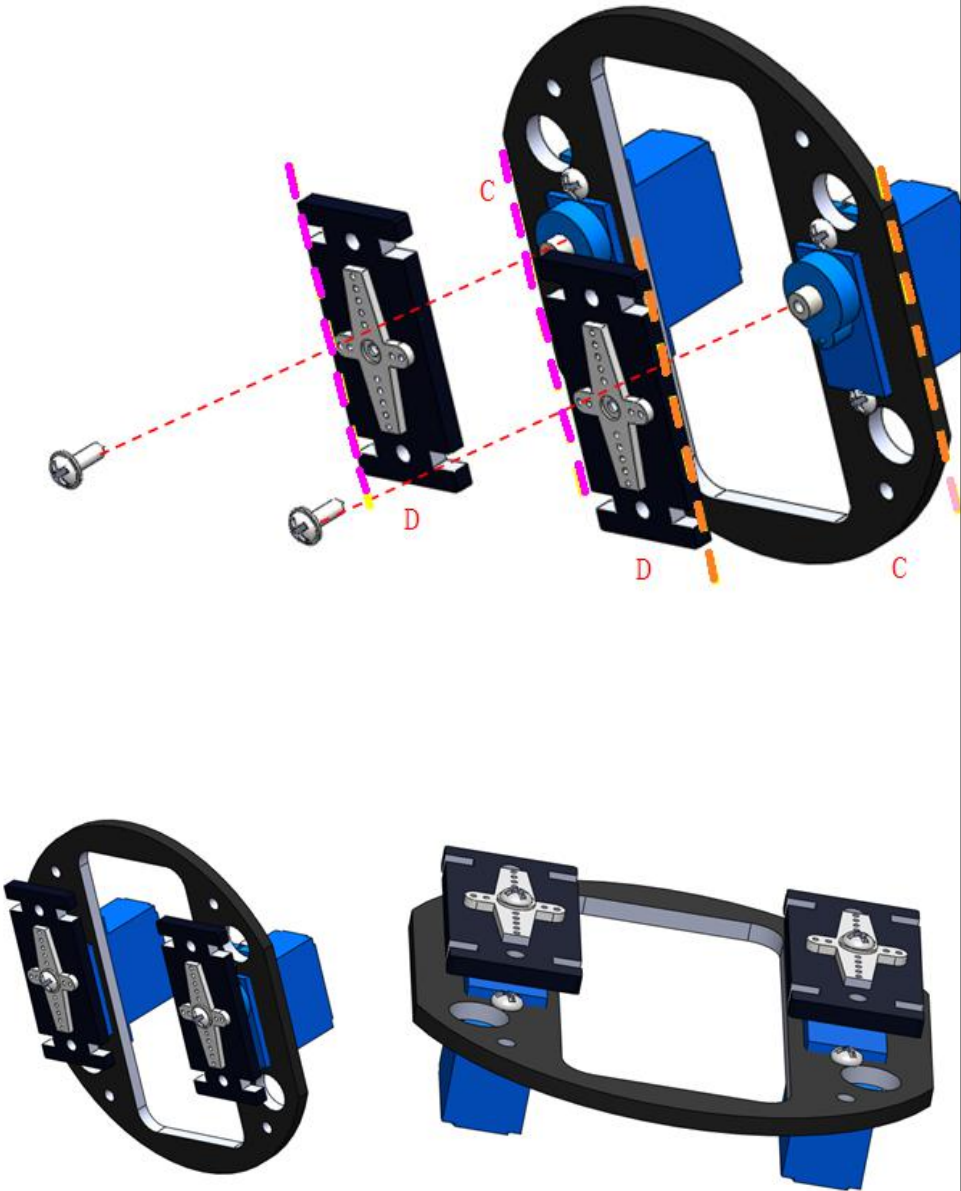
Tool: 

Need to prepare:

Semi-finished product of step 6	1	
Semi-finished product of step 7	2	
Self-contained screw of the servo	2	

Demo:

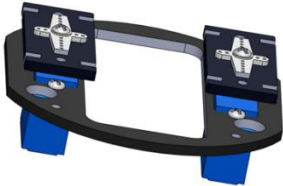


Special attention: 1. When installing the cross on the steering shaft, make sure that the structure D is parallel to the side of the structure C. That is, the yellow and orange dotted lines are marked;



Step 9: Assembling the M3*30
hexagonal copper column

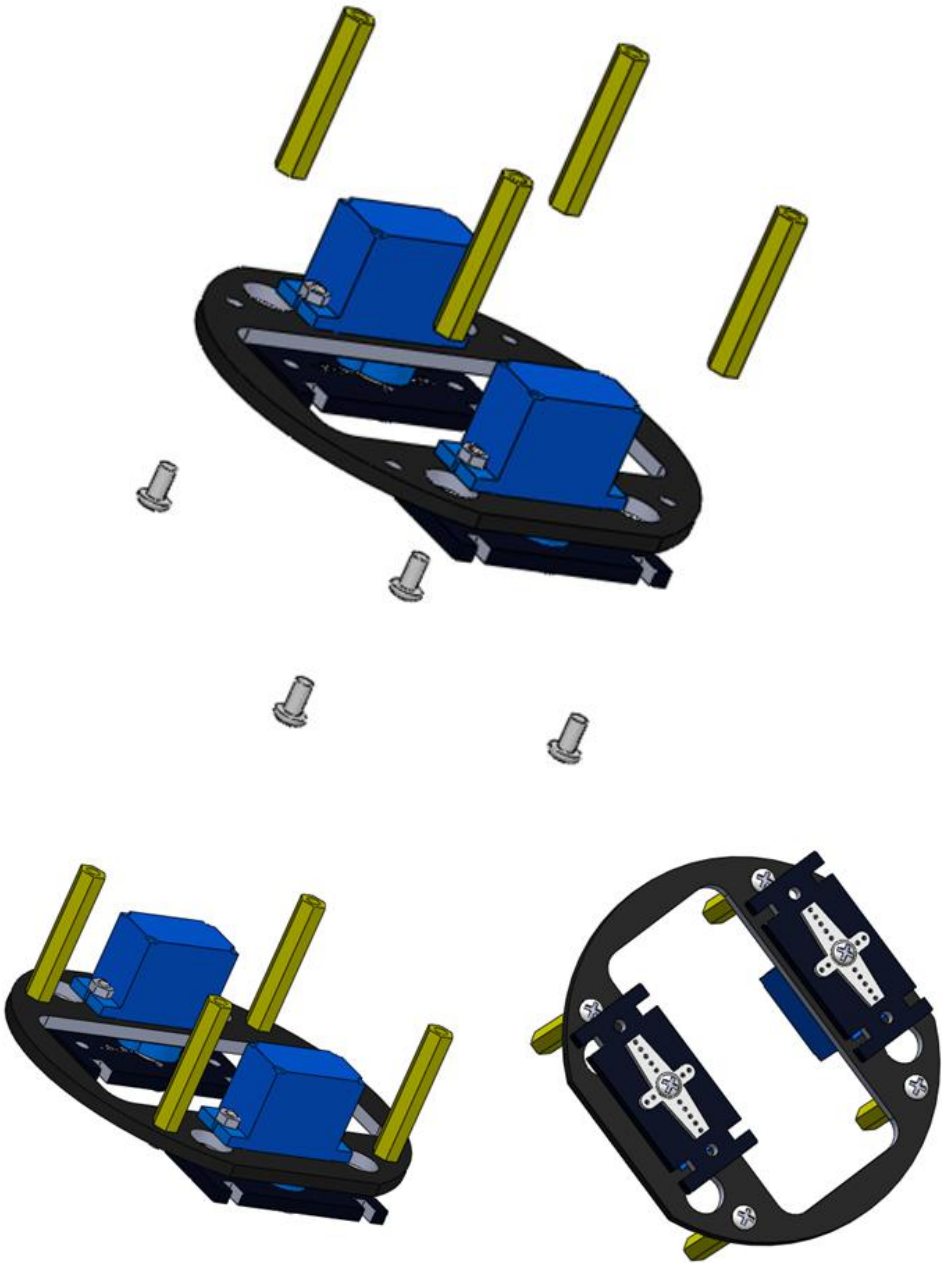
Tool: 

Need to prepare:

Semi-finished product of step 8	1	
M3*30mm copper column	4	
M3*6mm round head screw	4	

Demo:

Fix M3*30 hexagonal copper columns on
Semi-finished product of step 8 with
M3*6 round head screws



Step 10: Assembling Acrylic structure E and acrylic structure F

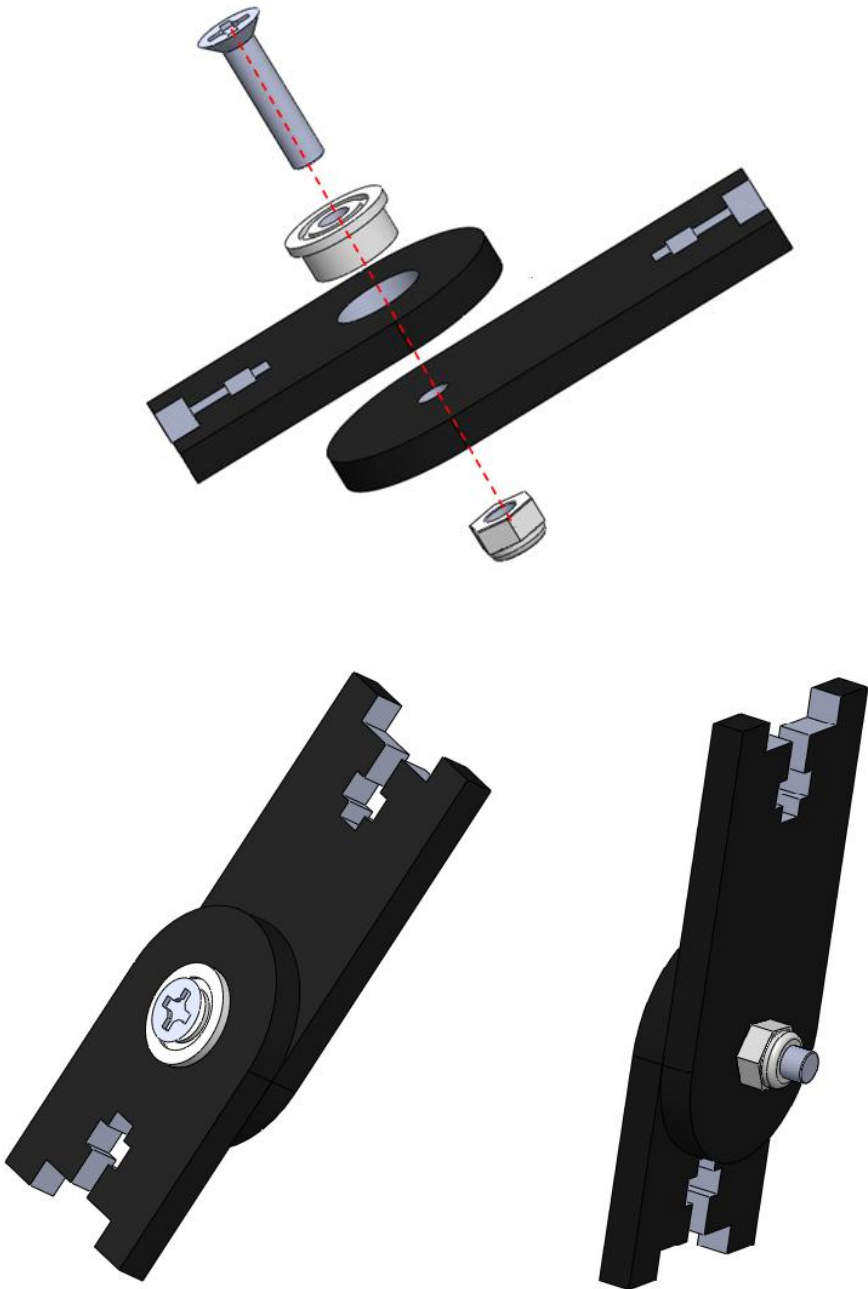


Need to prepare :

acrylic structure F	2	
acrylic structure E	2	
M3*12mm countersunk head screw	2	
φ 3*8*4 flange bearing F693ZZ	2	
M3 self-locking screw	2	

Demo :

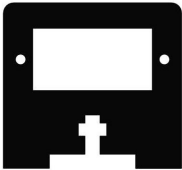



Note the installation order of structure E and structure F



Step 11: Assembling the servo of the left foot of the robot

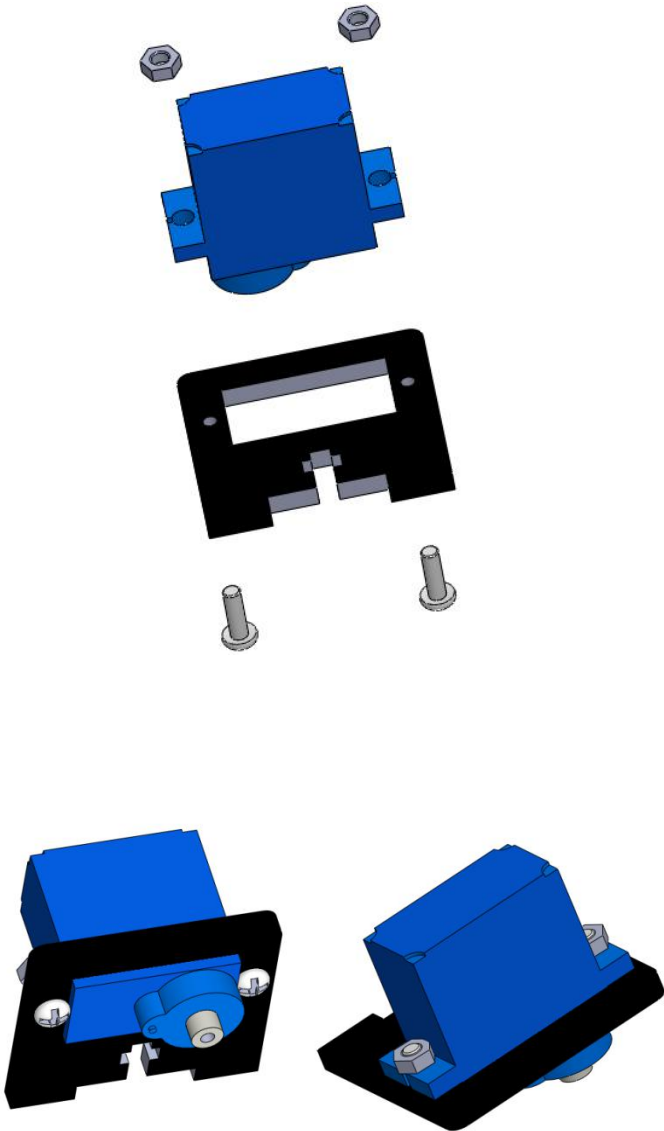
Tool: 

Need to prepare:

acrylic structure G	1	
SG90 servo motor	1	
M2*8mm round head screw	2	
M2 nut	2	

Demo:

Pay attention to the installation direction of the steering gear



Step 12: Assembling the left foot
of the robot

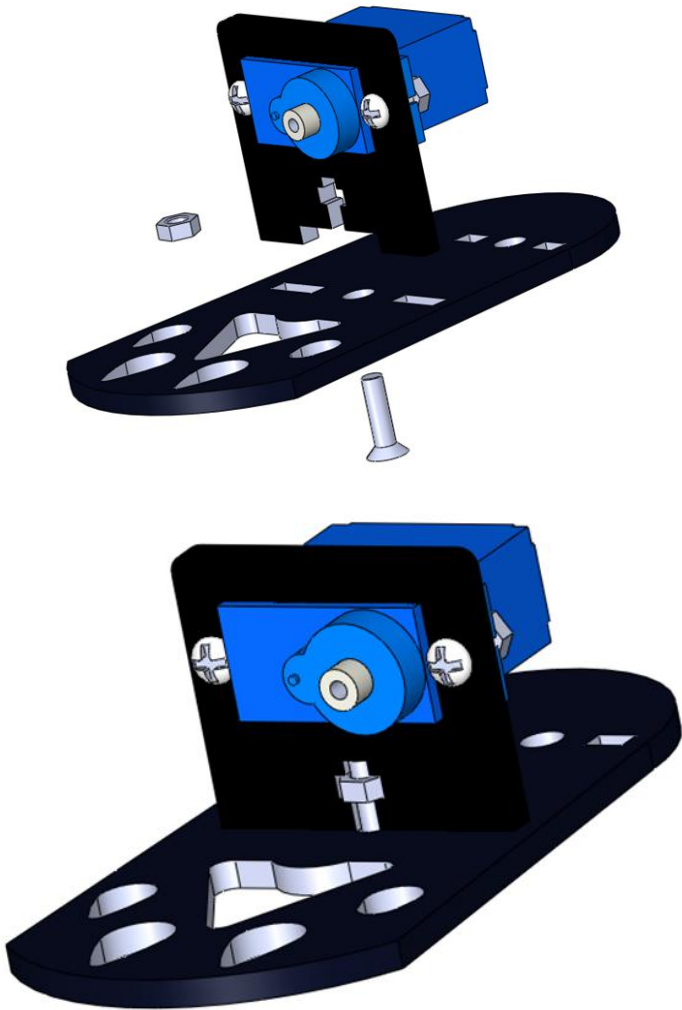
Tool: 

Need to prepare:

acrylic structure H	1	
M3*10mm countersunk head screw	1	
M3 nut	1	
Semi-finished product of step 11	1	

Demo:


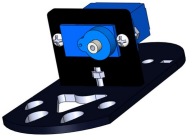


Pay attention to the installation
direction of the structural member H



Step 13: Assembling step 12 semi-finished product and step 14 semi-finished product

Tool: 

Need to prepare:

Semi-finished product of step 10	1	
Semi-finished product of step 12	1	
M3*10mm countersunk head screw	1	
M3 nut	1	

Demo:

Use the M3*10 countersunk screw and M3 nut to install the Semi-finished product of step 10 and semi-finished product of step 12



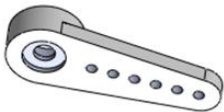
Step 14: Assembling the single arm of the servo

Tool: 

Need to prepare:

acrylic sheet E

2



Step 12 structure

6



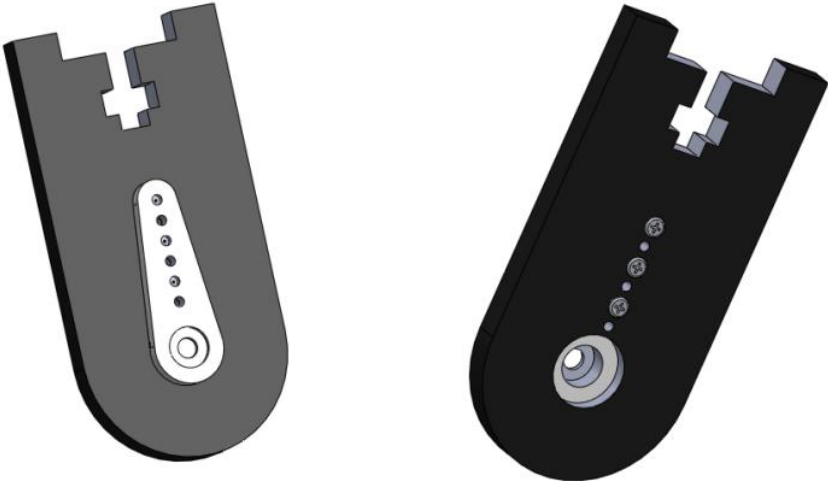
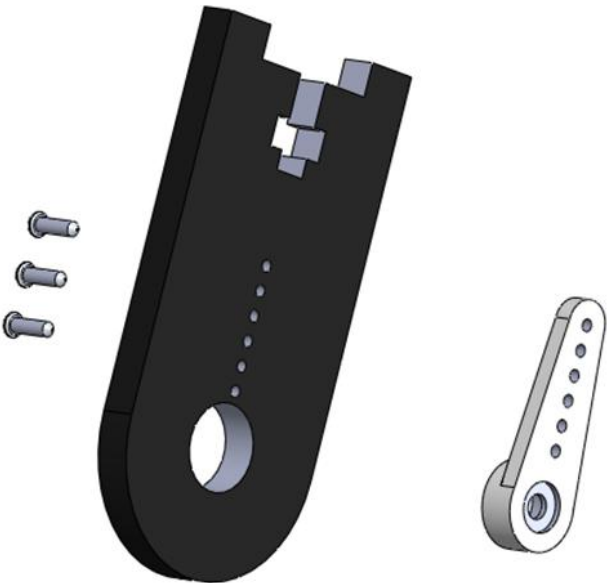
M3*10mm round head screw


2






Demo:

Pay attention to the direction of the arm bracket of the steering gear



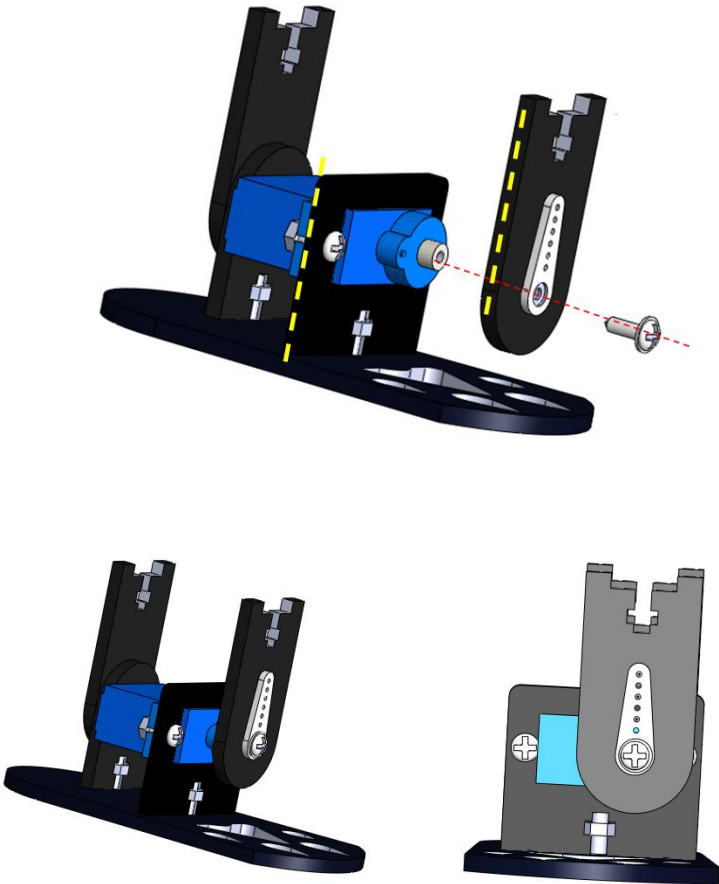
<p>Step 15: Assembling step 13 semi-finished product and step 14 semi-finished producte</p>	<p>Tool: </p>
--	---

Need to prepare :

<p>Step 11 structure</p>	<p>1</p>	
<p>Step 13 structure</p>	<p>1</p>	
<p>Self-contained screw for the steering gear</p>	<p>1</p>	

Demo :





pecial attention: 1. When installing the one-arm bracket to the steering gear shaft, make sure that the structure K is parallel to the side of the structure G. View the yellow dotted line on the right; 2. If the servo is not initialized, please initialize the servo according to the pre-assembly tutorial. After initialization, do not turn the servo motor before installing this mechanism.



**Step 16: Assembling the
18.robot's left leg and body**

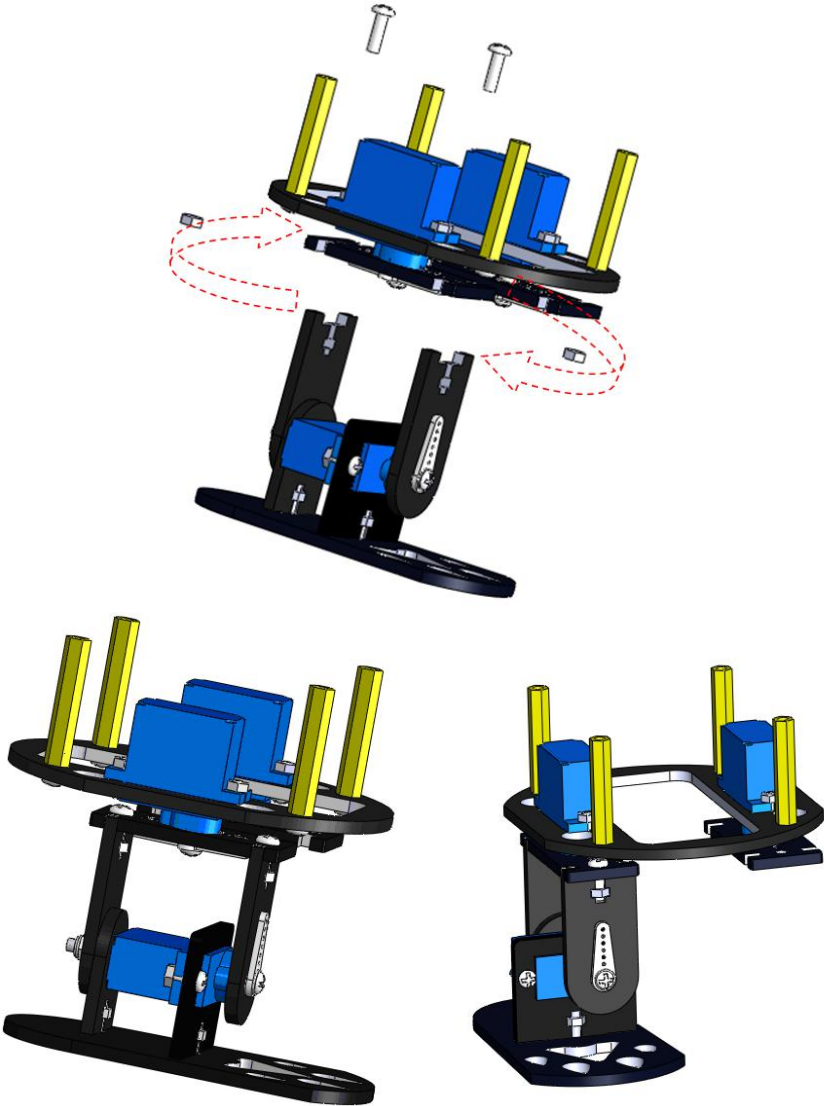
Tool: 

Need to prepare :

Semi-finished product of step 9	1	
Semi-finished product of step 15	1	
M3*10mm round head screw	2	
M3 mm nut	2	

Demo :

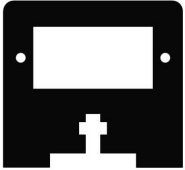



Rotating Acrylic D makes it easier
to install screws and nuts;



Step 17: Assembling the servo of the left foot of the robot

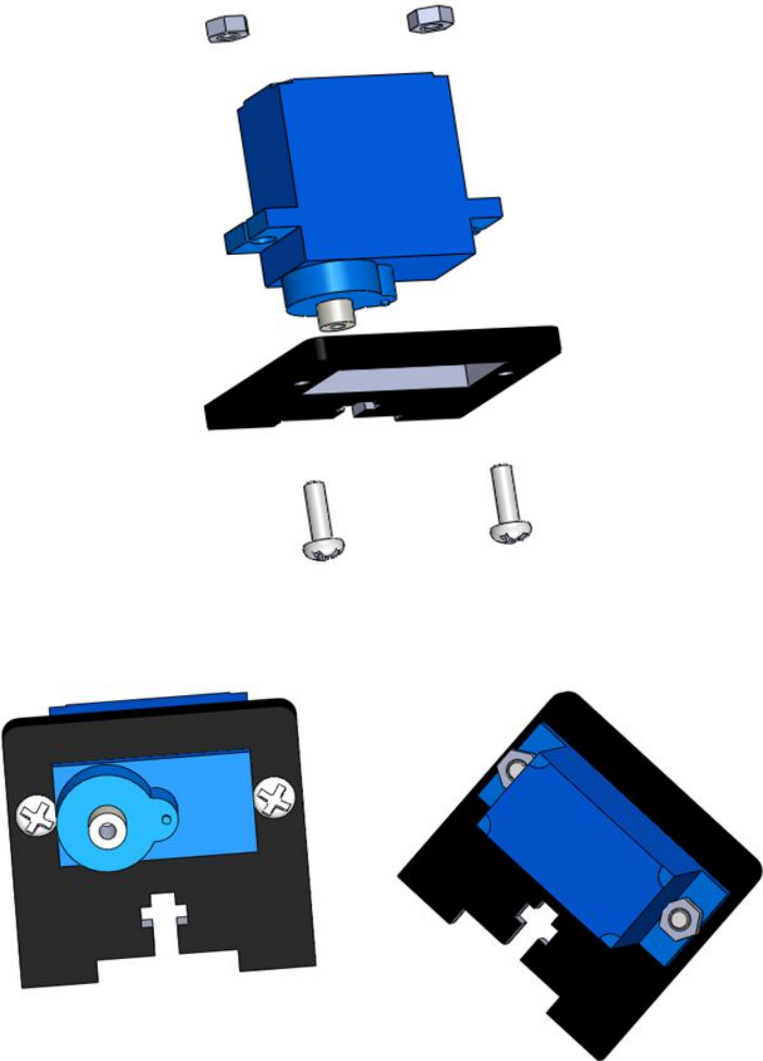
Tool: 

Need to prepare:

acrylic structure G	1	
SG90 servo motor	1	
M2*8mm round head screw	2	
M2 nut	2	

Demo:

Pay attention to the installation direction of the servo



Step 18: Assembling the right foot

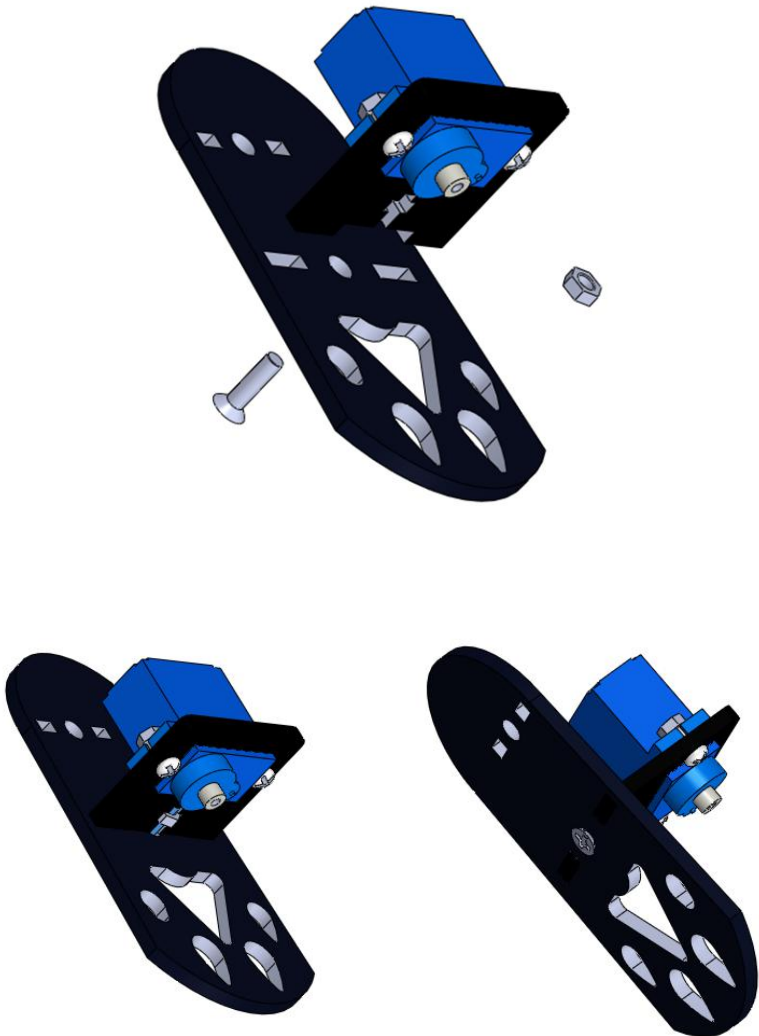
Tool: 

Need to prepare:

acrylic structure G	1	
M3*6mm countersunk head screw	1	
M3 nut	1	
Semi-finished product of step17	1	

Demo:

Pay attention to the installation direction of the acrylic structural member H



Step 19: Assembling the right leg V1

Tool: 

Need to prepare:

Semi-finished product of step 14	1	
Semi-finished product of step 18	1	
M3*6mm countersunk head screw	1	
M3 nut	1	

Demo:




Note the installation direction of the semi-finished product in step 10



Step 20: Assembling the right leg V2

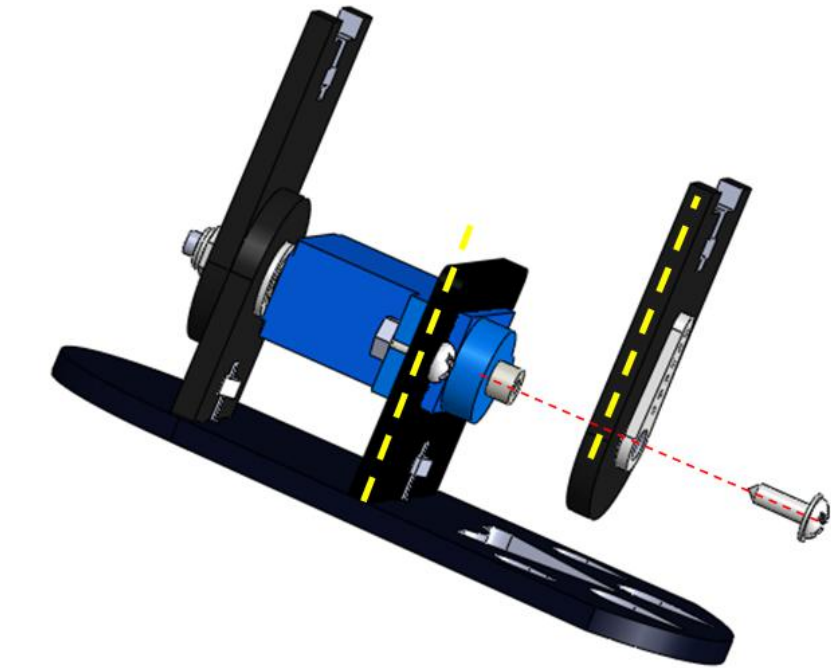
Tool: 

Need to prepare:

Semi-finished product of step 19	1	
Semi-finished product of step 14	1	
Self-contained screw for servo	1	

Demo:

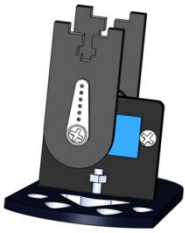



Pay attention to the installation direction of the acrylic structural member H



Step 21: Assembling the right foot

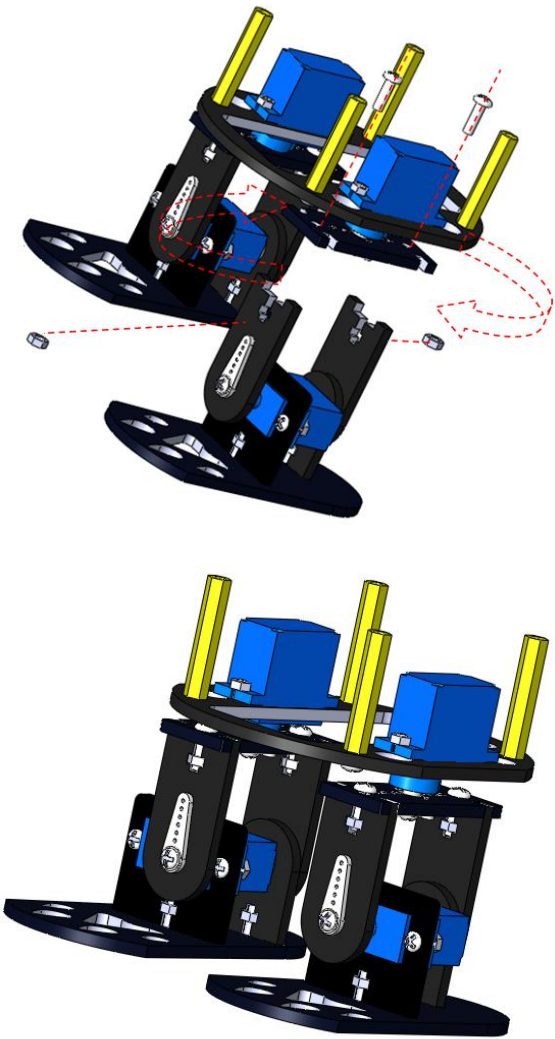
Tool: 

Need to prepare:

Semi-finished product of step 20	1	
Semi-finished product of step 16	1	
M3*10mm round head screw	2	
M3 mm nut	2	

Demo:




You can make the installation of screws and nuts easy by rotating the structural member D;



Step 22 : Assembling the upper and lower parts of the robot

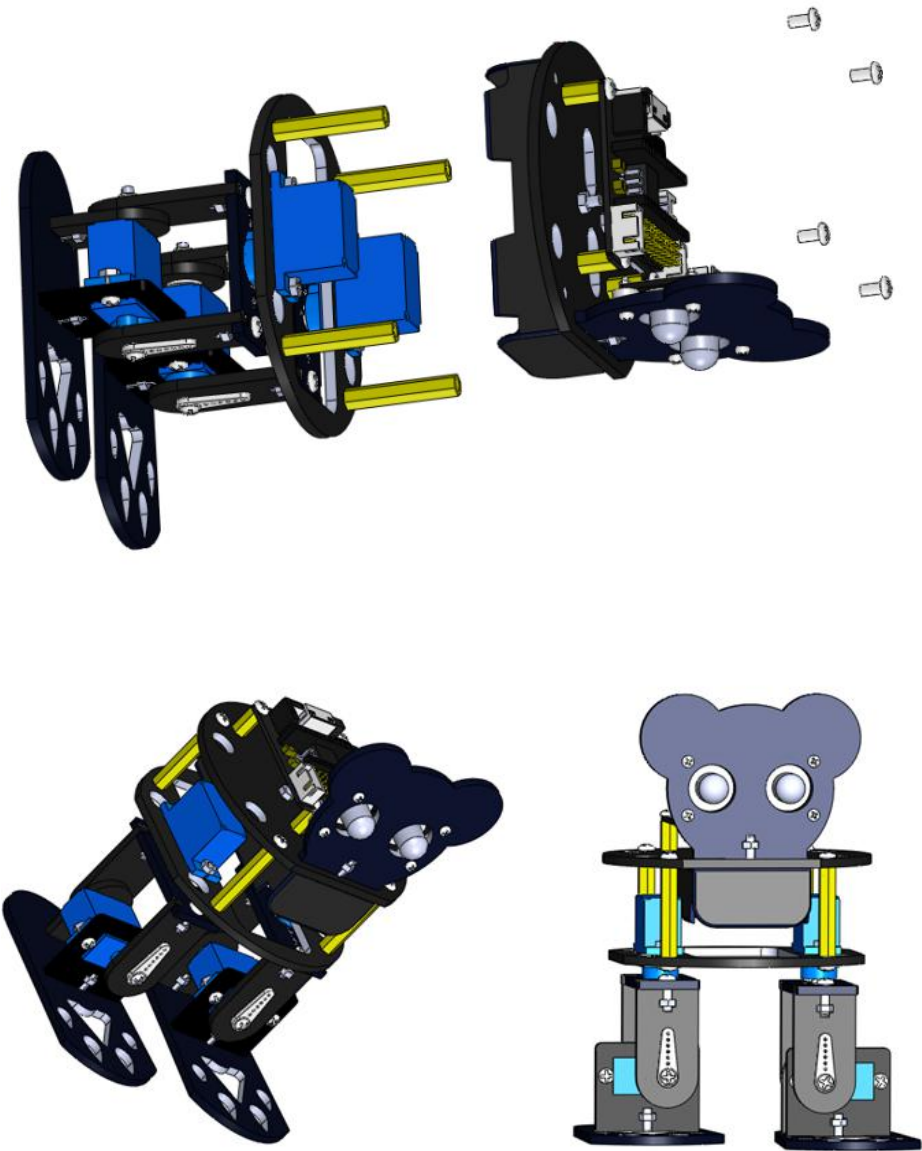
Tool: 

Need to prepare :

upper and lower parts of the robot 21	1	
upper and lower parts of the robot 5	1	
M3*6mm round head screw	4	

Demo :

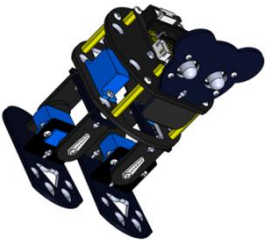

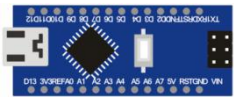
Pay attention to the installation direction of the acrylic structural member H



Step 23 : Install Bluetooth module and NANO board

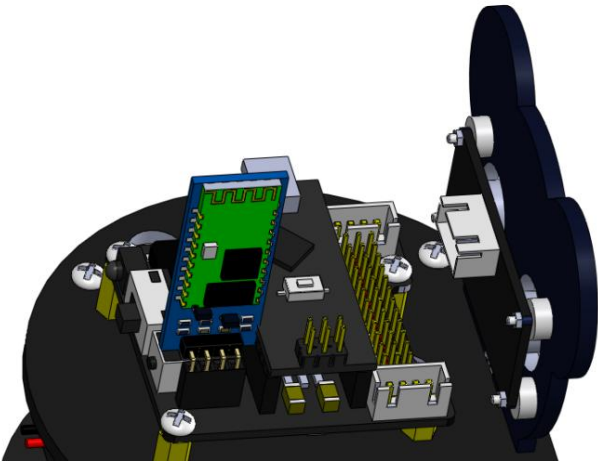
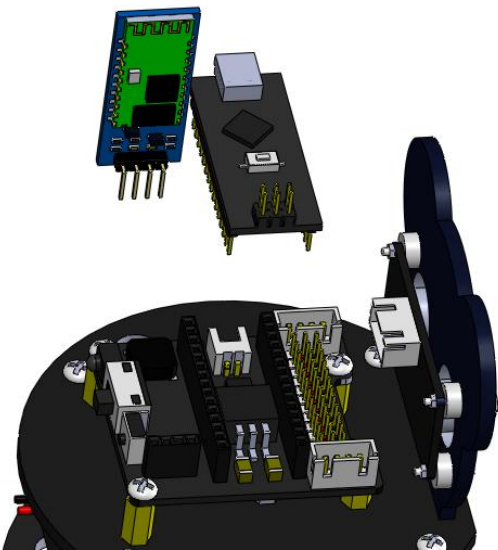
Tool: 

Need to prepare :

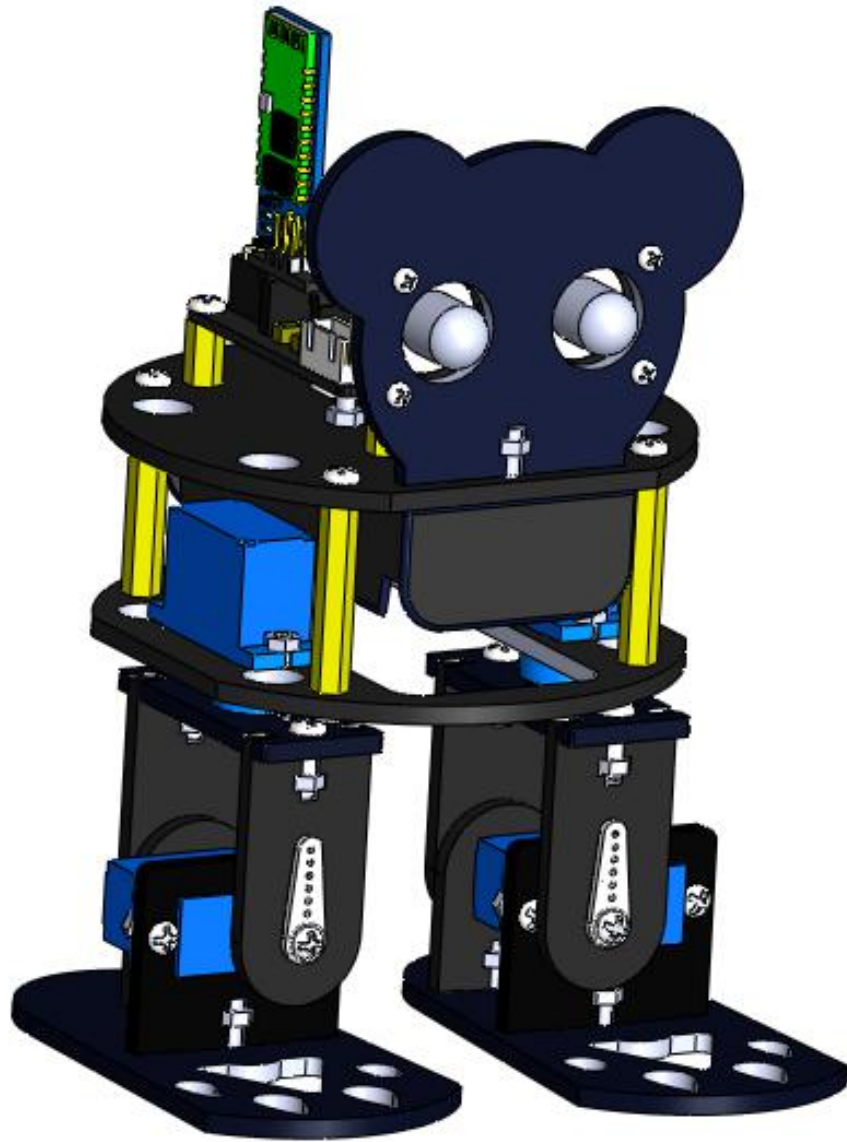
semi-finished product of step 22	1	
Bluetooth module	1	
NANO board	1	

Demo :

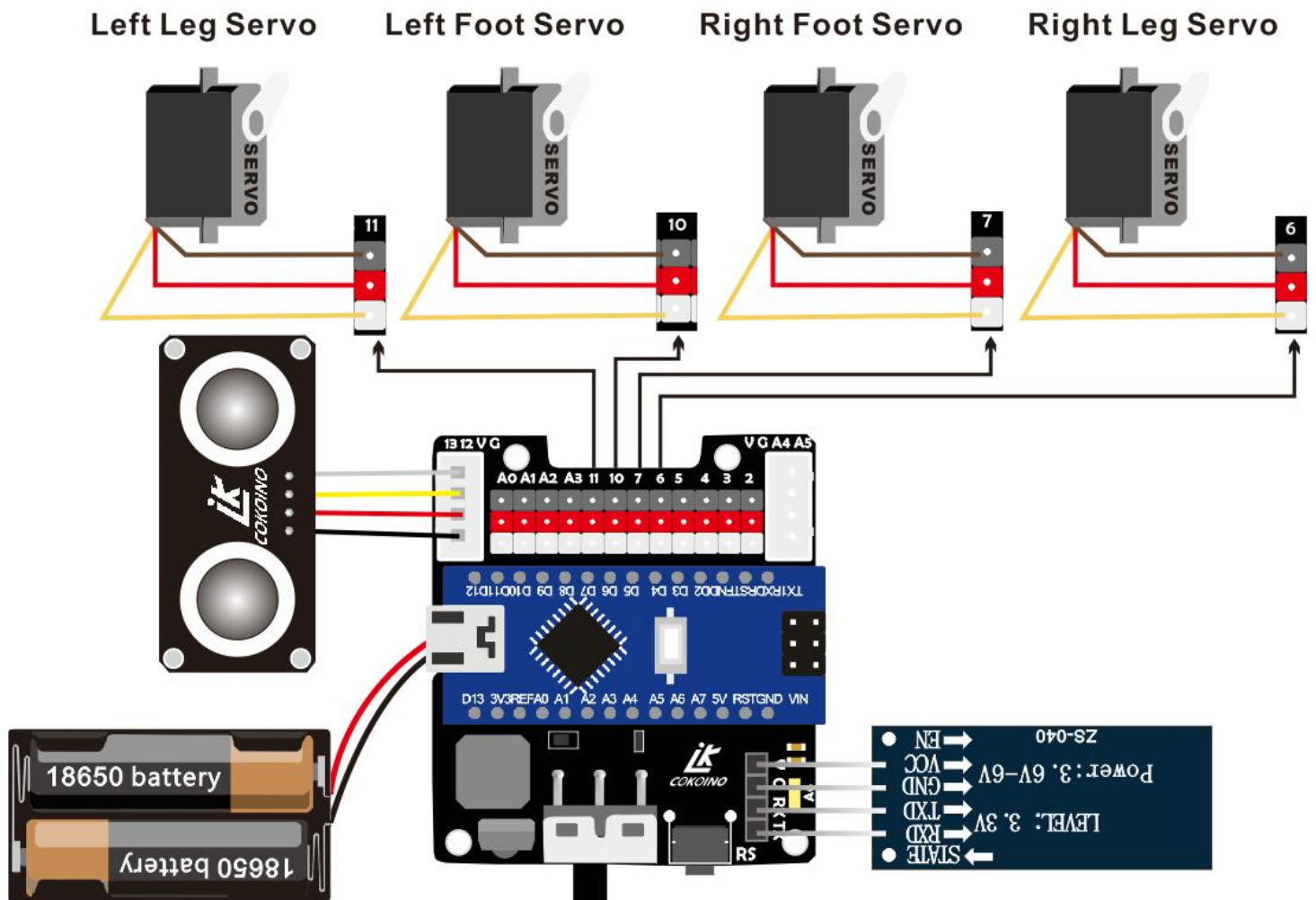
Please pay attention to the installation direction of Bluetooth



Congratulations, a cool Dancing robot is done.



Wiring diagram



After completing the wiring, please wrap the steering gear with a winding tube, which will make the robot look more beautiful.

