Assembly of Dancing Robot

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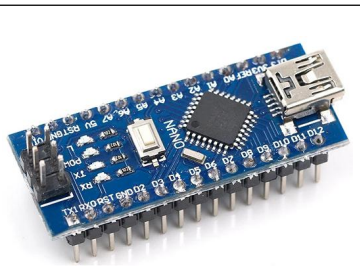
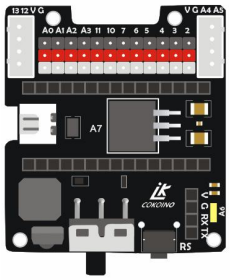
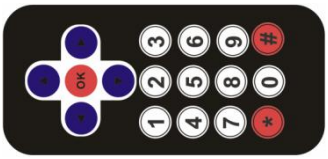
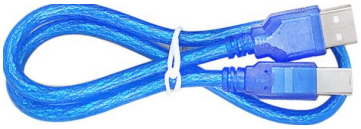
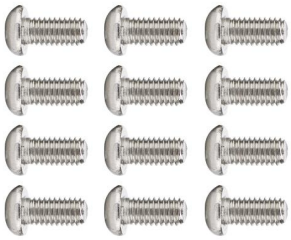
After-sales: If you have any question or suggestion about our company, products or manual, please contact us at cokoino@outlook.com

Parts List

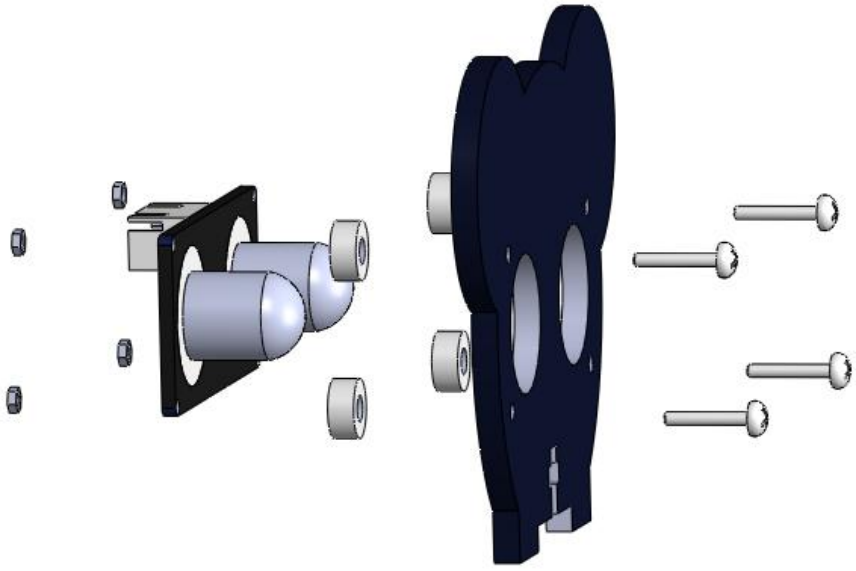
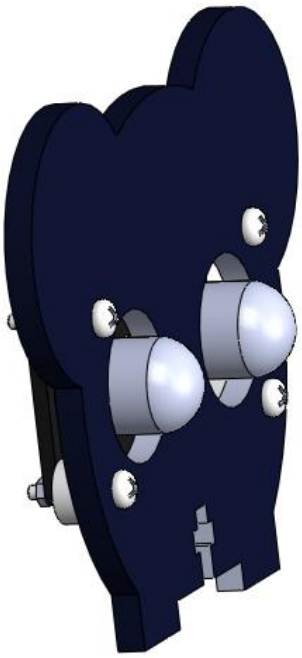
	NANO board*1		NANO shield*1
	**Bluetooth module*1**		**infrared remote control*1**
	**RGB LED module*1**		**USB Cable*1**
	**18650 battery case*1**		**A pair of Acrylic sheet**
	**P1.2*4mm self-tapping screw*36**		**M1.6*10mm round head screw*4**
	**SG90 Servo*4**		**M3*30mm copper column*4**
	**M3*12mm countersunk head screw*2**		**4PIN -70mm cable*1**
	M1.6 mm nut*4		**Φ3*3mm nylon column*4**
	**M3*10mm countersunk head screw*7**		**M2*8mm round head screw *8**
	M2*8mm nut		**M3*10mm copper column*4**

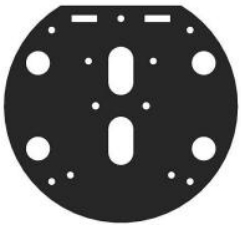
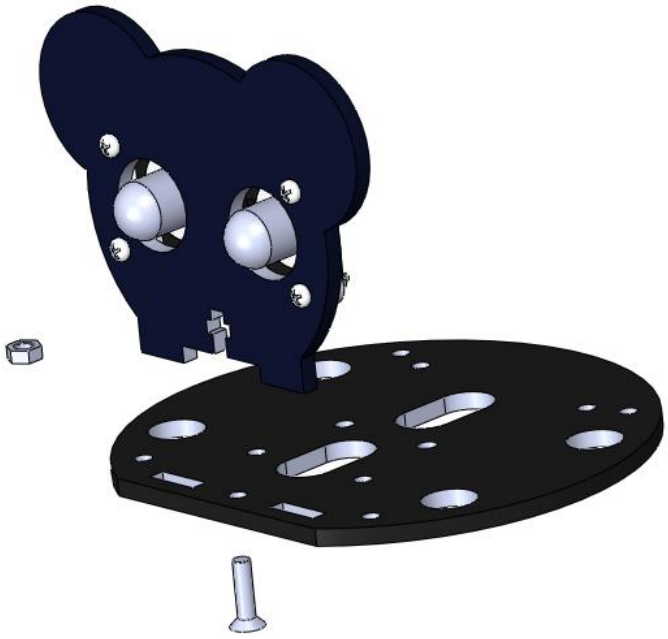
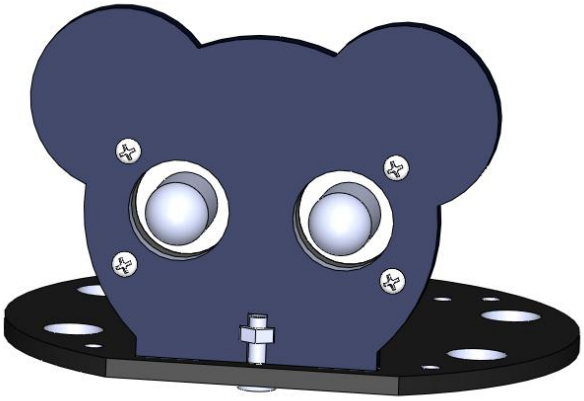
	M3*6mm round head screw*12		M3*10mm round head screw*4
	M3*6mm countersunk head screw*4		M3 mm nut*11
	M3 mm self-locking screw*2		ϕ3*8*4 flange bearing F693ZZ*2
	4mm black winding tube(20cm)		cross sleeve*1
	M2 Phillips screwdriver		M3 Phillips screwdriver

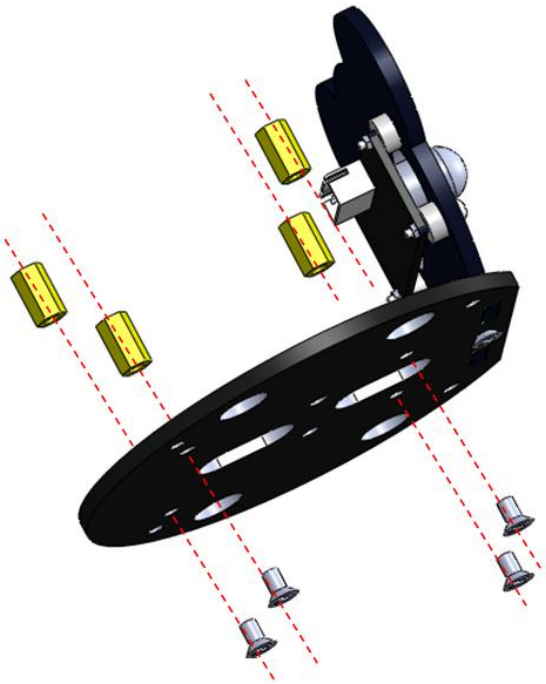
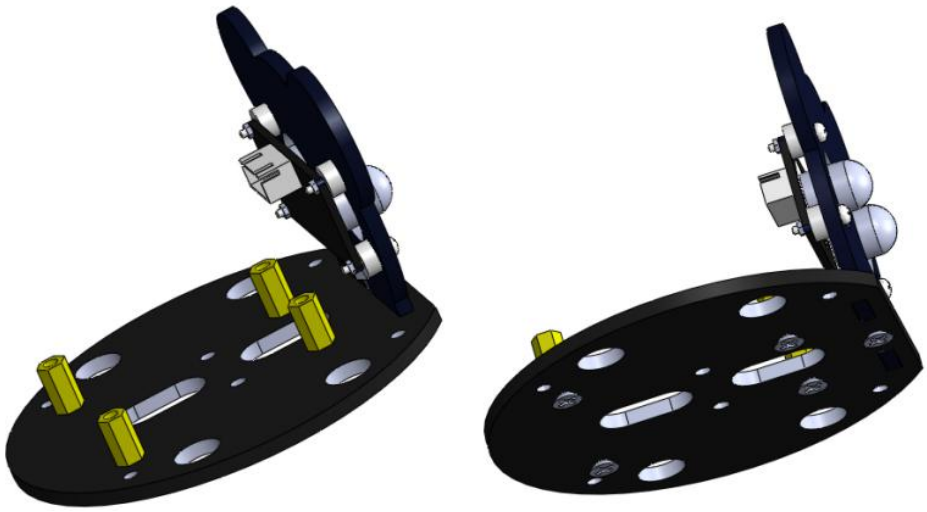
Note:Please initialize the servo motor before installation.

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		 

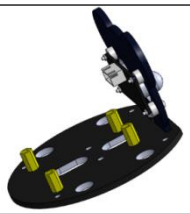
Step 2： Assembling the acrylic plate B		Tool： 
Need to prepare：		
acrylic plate B	1	
M3*10mm countersunk head screw	1	
M3 mm nut	1	
Step 1 structure	1	
Demo：		
According to the instructions of the picture, assemble acrylic plate B and Step 1 structure with M3*10mm countersunk head screw and M3 mm nut		 

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： 

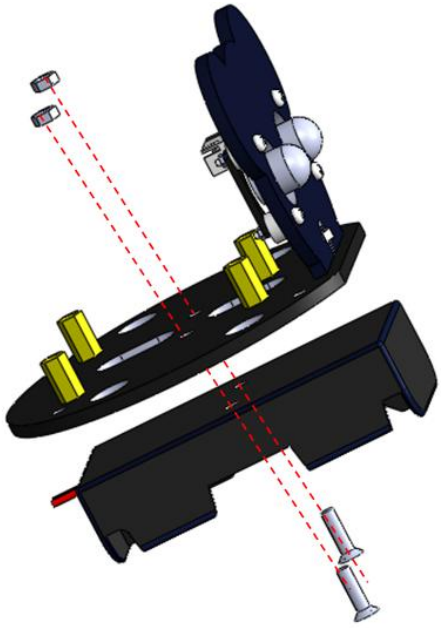
Need to prepare：

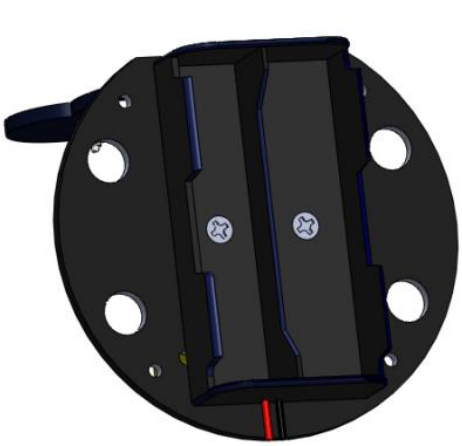
18650 battery case	1	
M3*10mm countersunk head screw	2	
M3 mm nut	2	
Step 3 structure	1	

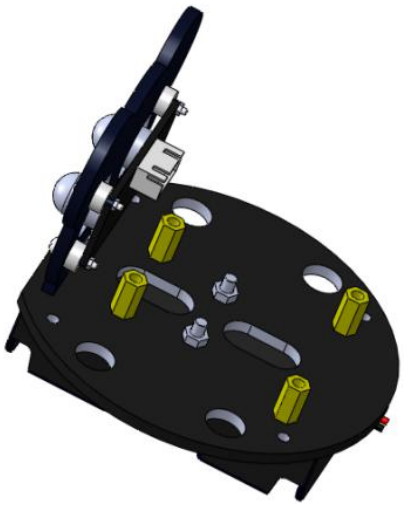
Demo：

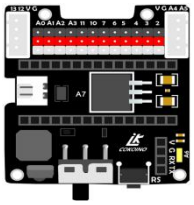
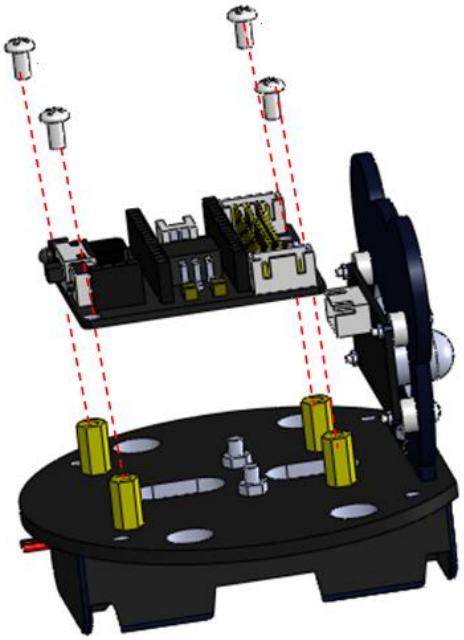
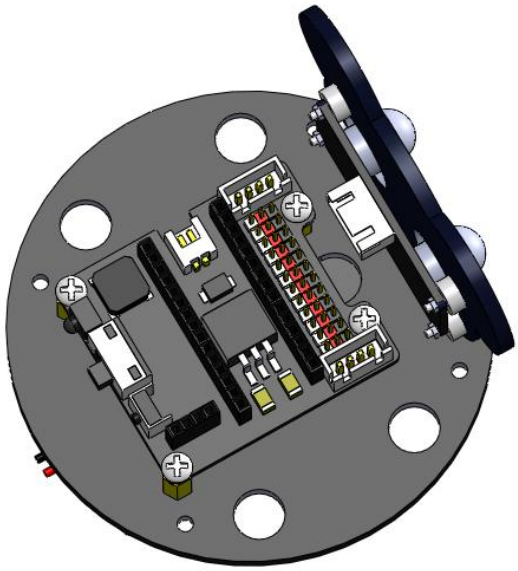
Install the 18650 battery case on the Step 3 structure using the M3*10 countersunk screws and the M3 nuts;

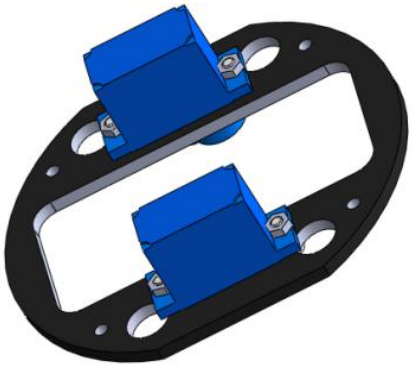
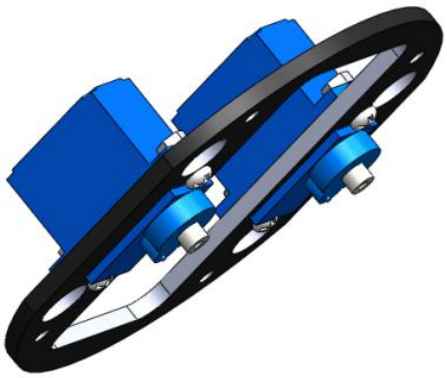
Please pay attention to the installation direction of 18650 battery box





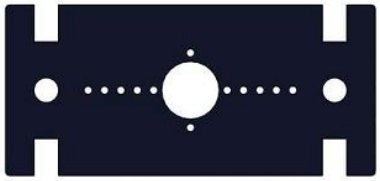


Step 5：Assembling the NANO shield		Tool： 
Need to prepare：		
M3*6 round head screw	**4**	
NANO shield	**1**	
Step 4 structure	**1**	
Demo：		
Install the NANO shield on the step 4 structure using M3*6 round head screws;		 

Step 6: Assembling the servos of the robot's legs	Tool： 	
Need to prepare：		
Acrylic Structure c	1	
M2*8mm round head screw	2	
M2 nut	2	
Servo	1	
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.	  	

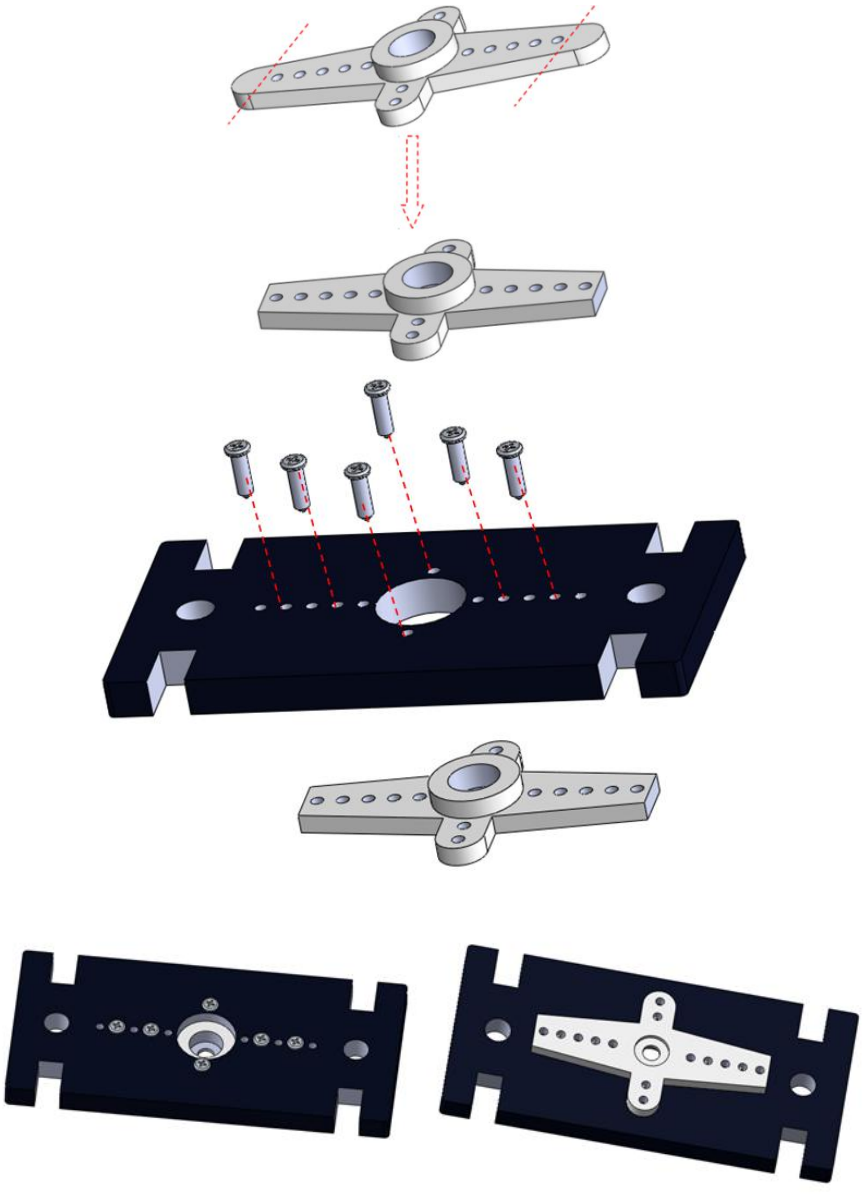
Step 7： Assembling steering gear cross bracket	Tool： 

Need to prepare：

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

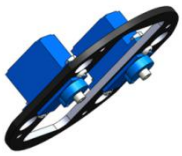
Demo：

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



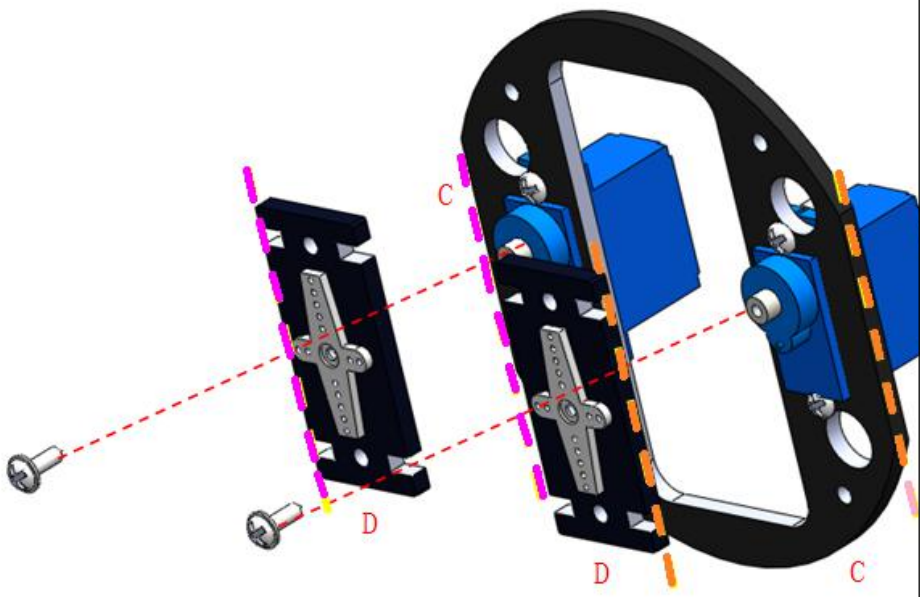
Step 8： Assembling the servo bracket of the robot's leg	Tool： 

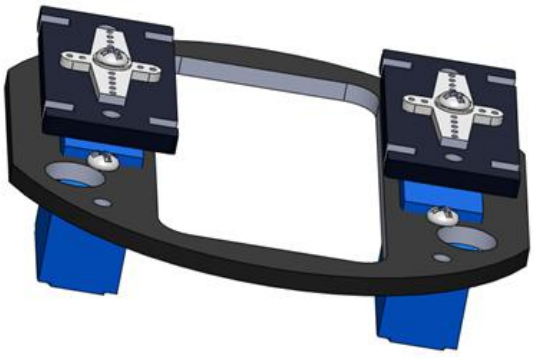
Need to prepare：

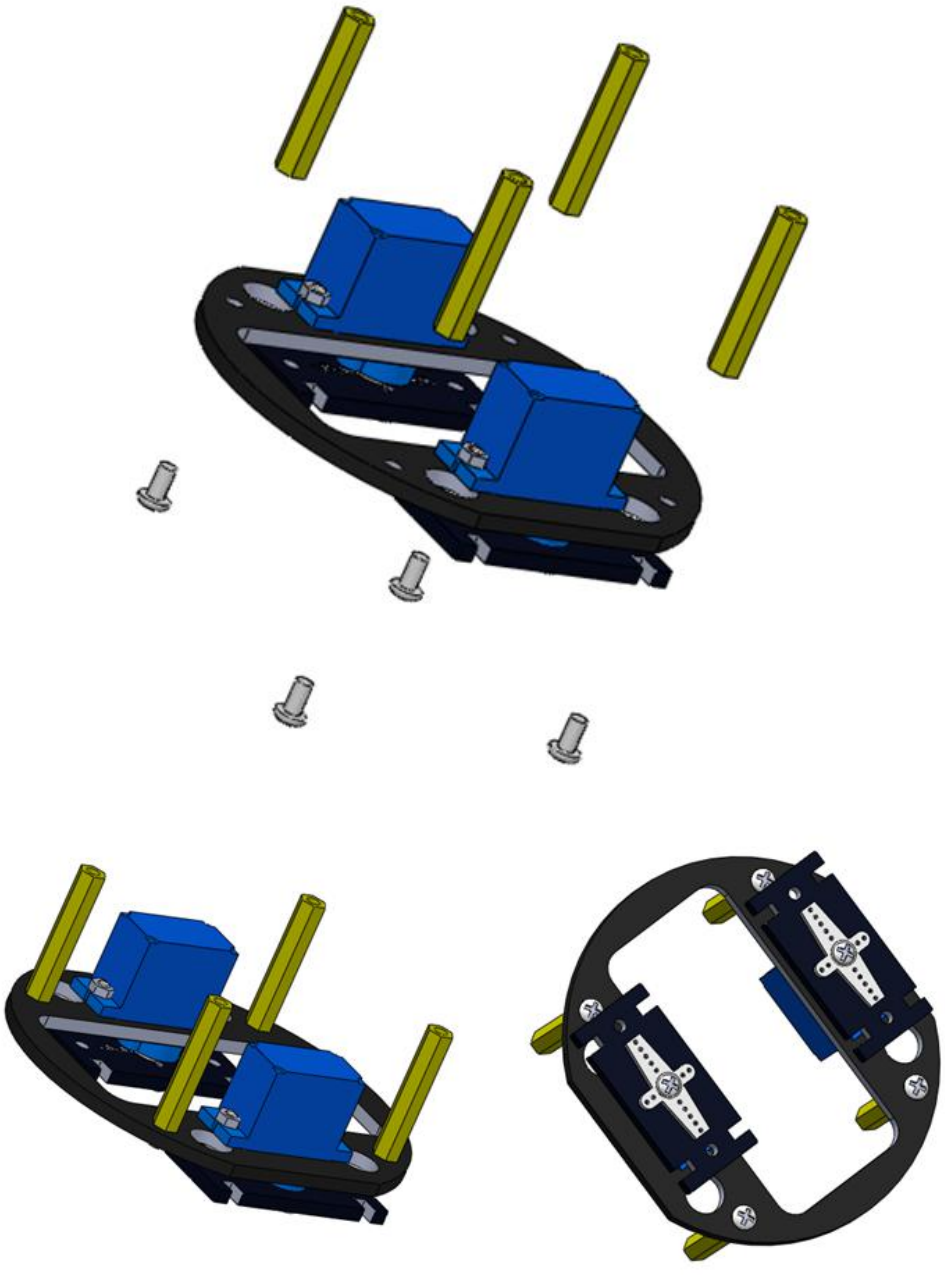
Semi-finished product of step 6	1	
Semi-finished product of step 7	1	
Self-contained screw of the servo	2	

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		

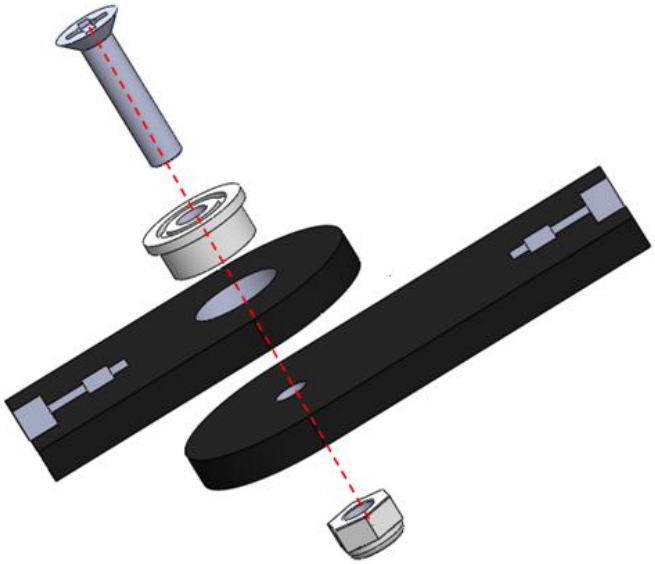
Step 10： Assembling Acrylic structure E and acrylic structure F	Tool： 

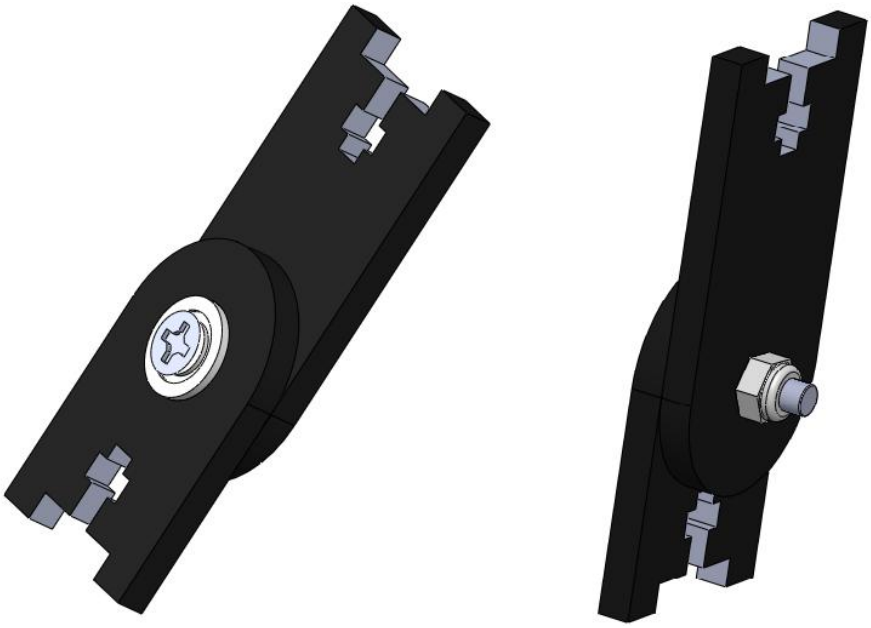
Need to prepare：

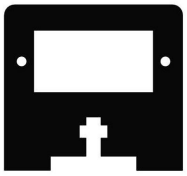
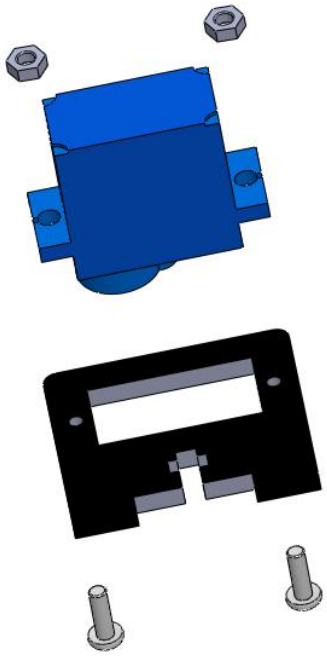
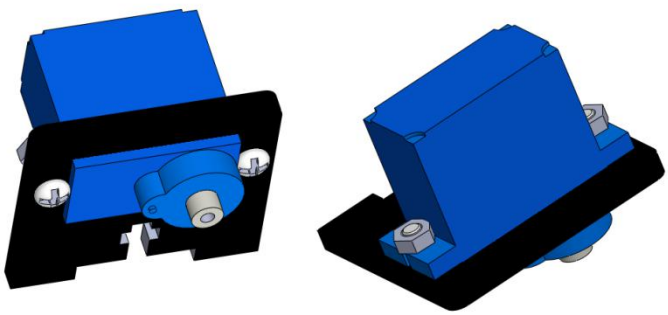
acrylic structure F	2	
acrylic structure E	2	
M3*12mm countersunk head screw	2	
Φ 3*8*4 flange bearing F693ZZ	2	
M3 mm self-locking screw	2	

Demo：

Note the installation order of structure E and structure F

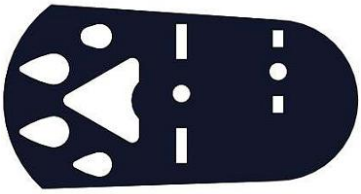
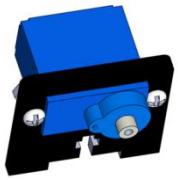




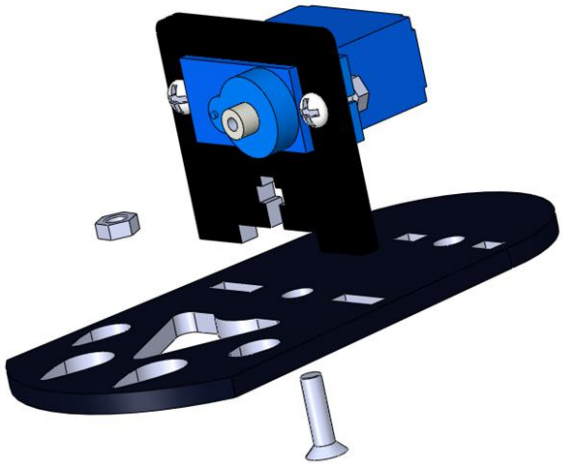
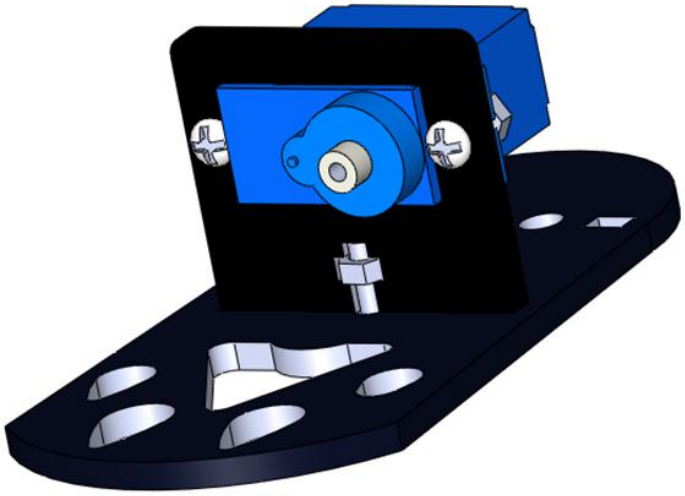
Step 11： Assembling the servo of the left foot of the robot	Tool： 	
Need to prepare：		
acrylic structure G	1	
SG90 servo motor	1	
M2*8mm round head screw	2	
M2 nut	2	
Demo：		
Pay attention to the installation direction of the steering gear	 	

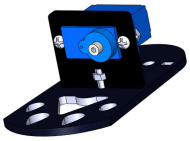
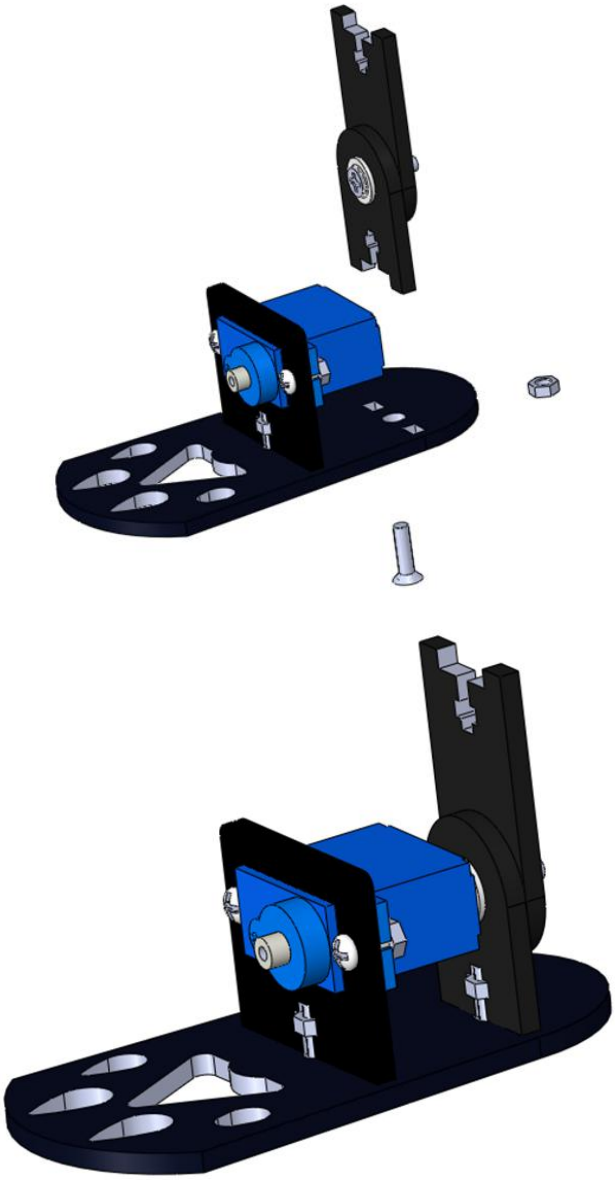
Step 12： Assembling the left foot of the robot	Tool： 

Need to prepare：

acrylic structure H	1	
M3*10mm countersunk head screw	2	
M3 nut	2	
Semi-finished product of step 11	1	

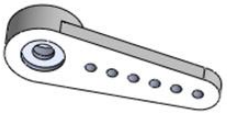
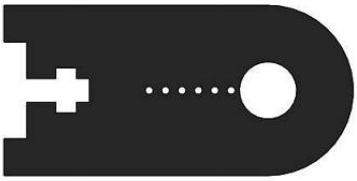
Demo：

Pay attention to the installation direction of the structural member H	 

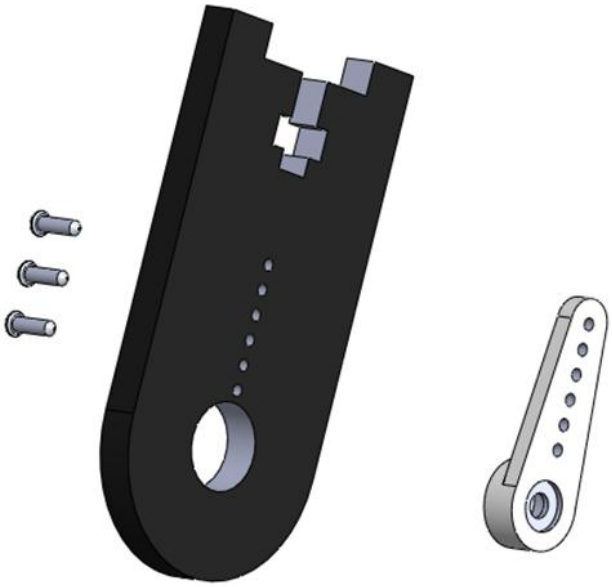
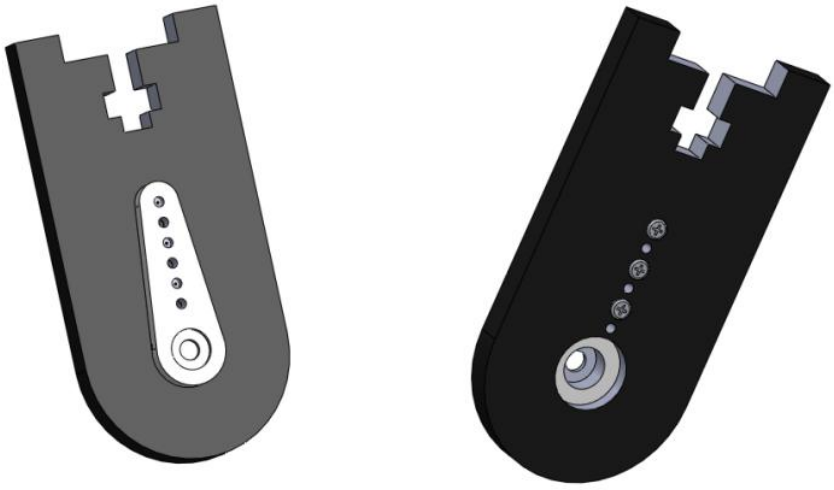
Step 13： Assembling step 12 semi-finished product and step 14 semi-finished product	Tool： 	
Need to prepare：		
Semi-finished product of step 10	1	
Semi-finished product of step 12	1	
M3*10mm countersunk head screw	1	
M3 nut	1	
Demo：		
Use the M3*10 countersunk screw and M3 nut to install the Semi-finished 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：

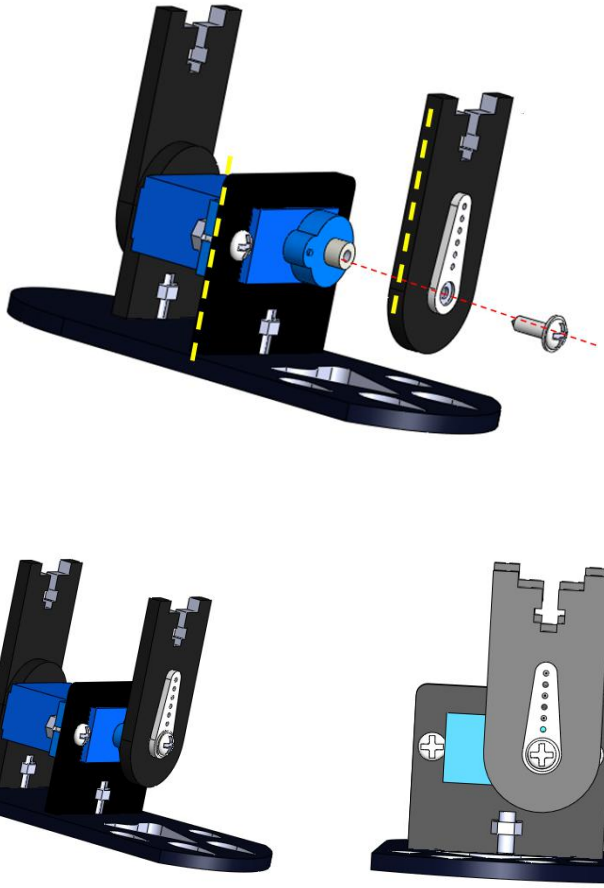
Pay attention to the direction of the arm bracket of the steering gear	 

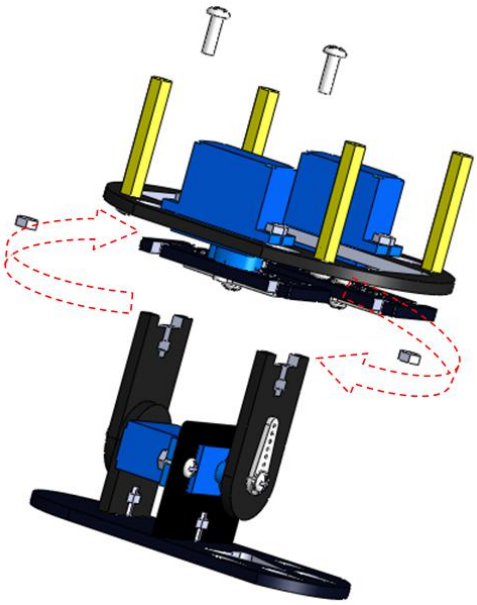
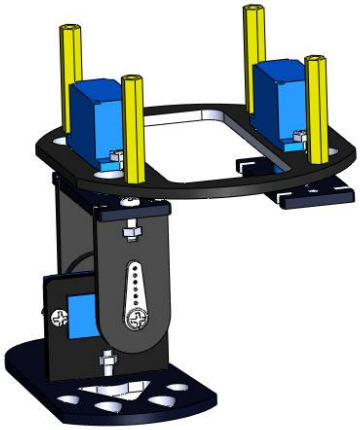
Step 15： Assembling step 13 semi-finished product and step 14 semi-finished producte	Tool： 

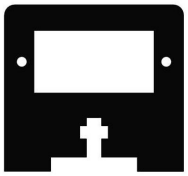
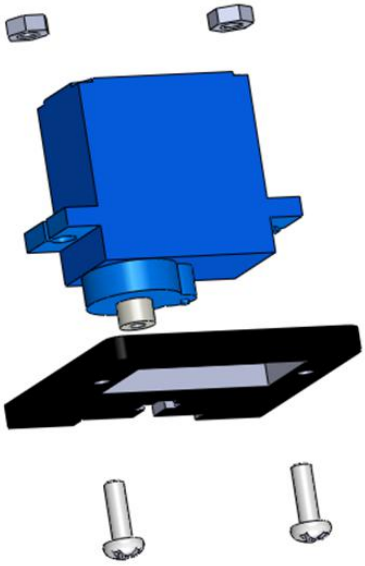
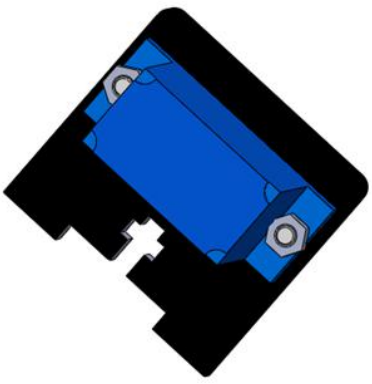
Need to prepare：

Step 11 structure	1	
Step 13 structure	1	
Self-contained screw for the steering gear	1	

Demo：

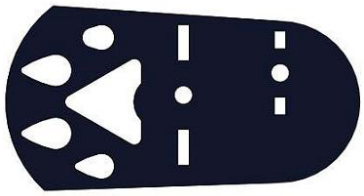
pecial attention: 1. When installing the one-arm bracket to the steering gear shaft, make sure that the structure K is parallel to the side of the structure G. View the yellow dotted line on the right; 2. If the servo is not initialized, please initialize the servo according to the pre-assembly tutorial.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

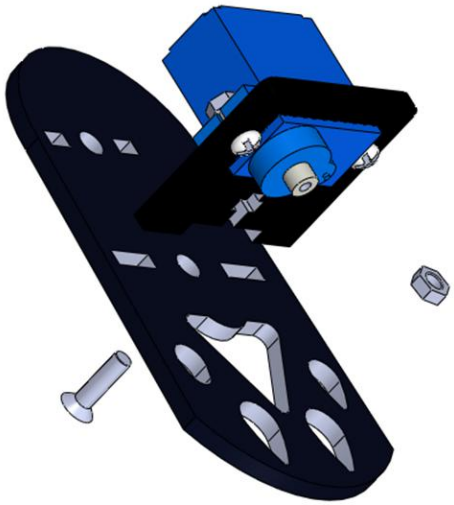
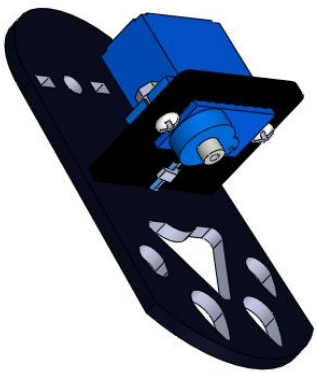
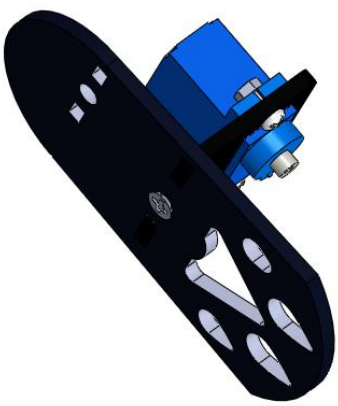
Step 17：Assembling the servo of the left foot of the robot		Tool： 
Need to prepare：		
acrylic structure G	1	
SG90 servo motor	1	
M2*8mm round head screw	2	
M2 nut	2	
Demo：		
Pay attention to the installation direction of the servo		  

Step 18：Assembling the right foot	Tool： 

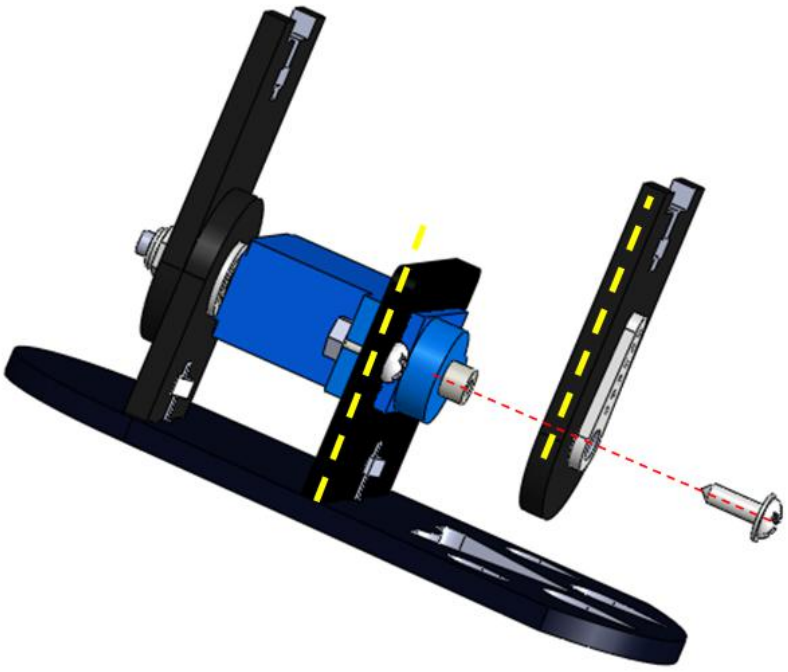
Need to prepare：

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

Demo：

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

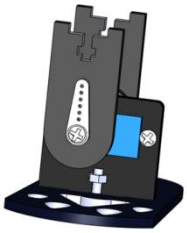
Step 19：Assembling the right leg V1		Tool： 
Need to prepare：		
Semi-finished product of step 14	1	
Semi-finished product of step 18	1	
M3*6mm countersunk head screw	1	
M3 mm nut	1	
Demo：		
Note the installation direction of the semi-finished product in step 10		

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		 

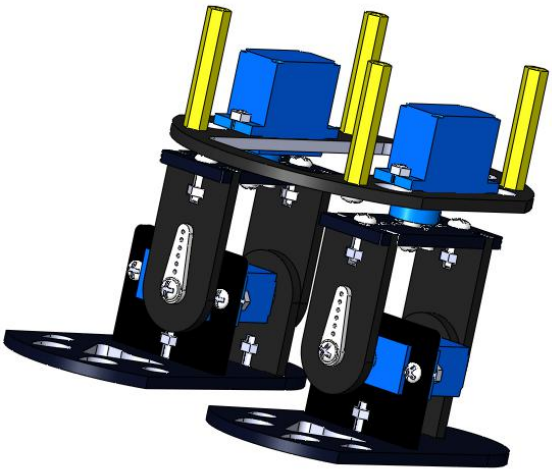
Step 21： Assembling the right foot

Tool： 

Need to prepare：

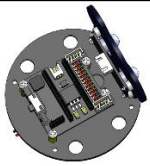
Semi-finished product of step 20	1	
Semi-finished product of step 16	1	
M3*10mm round head screw	2	
M3 mm nut	2	

Demo：

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

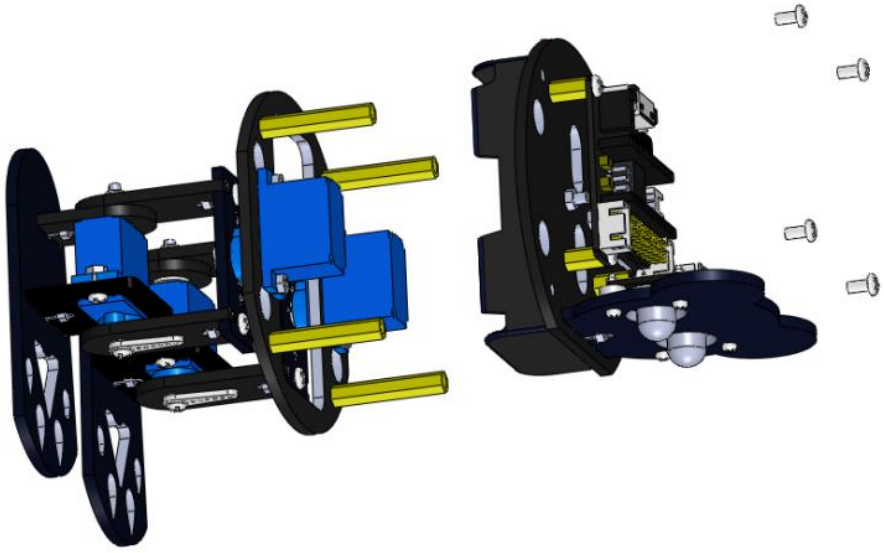
Step 22： Assembling the upper and lower parts of the robot	Tool： 

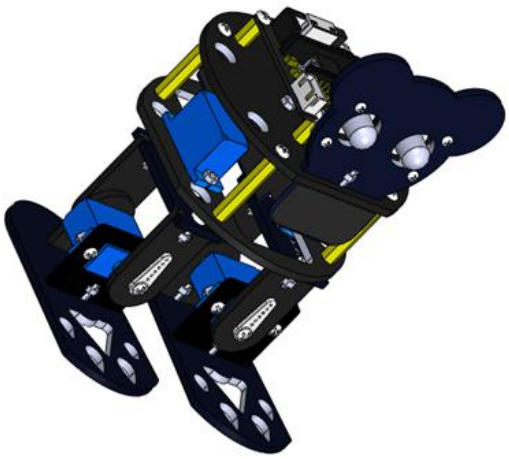
Need to prepare：

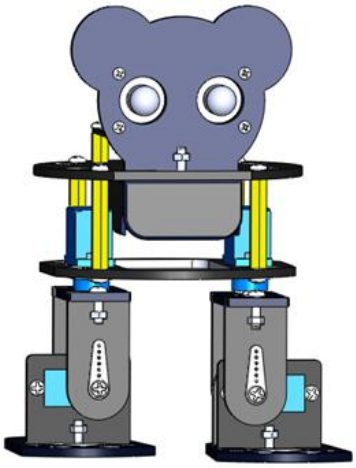
upper and lower parts of the robot 21	1	
upper and lower parts of the robot 5	1	
M3*6mm round head screw	1	

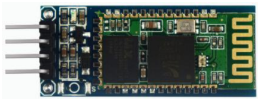
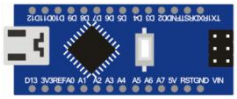
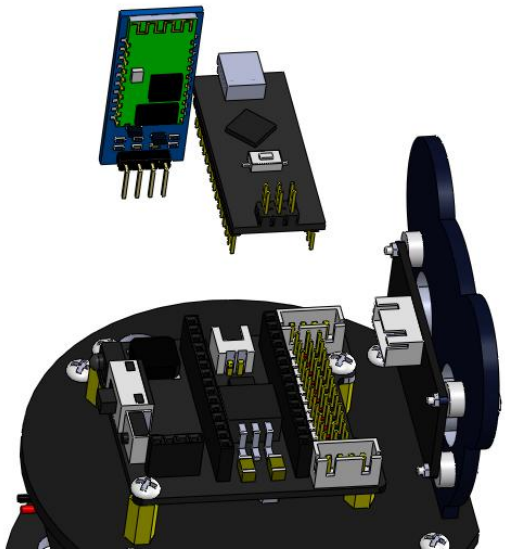
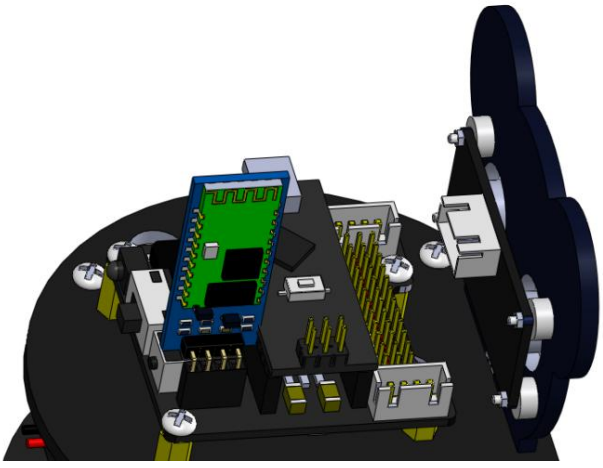
Demo：

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

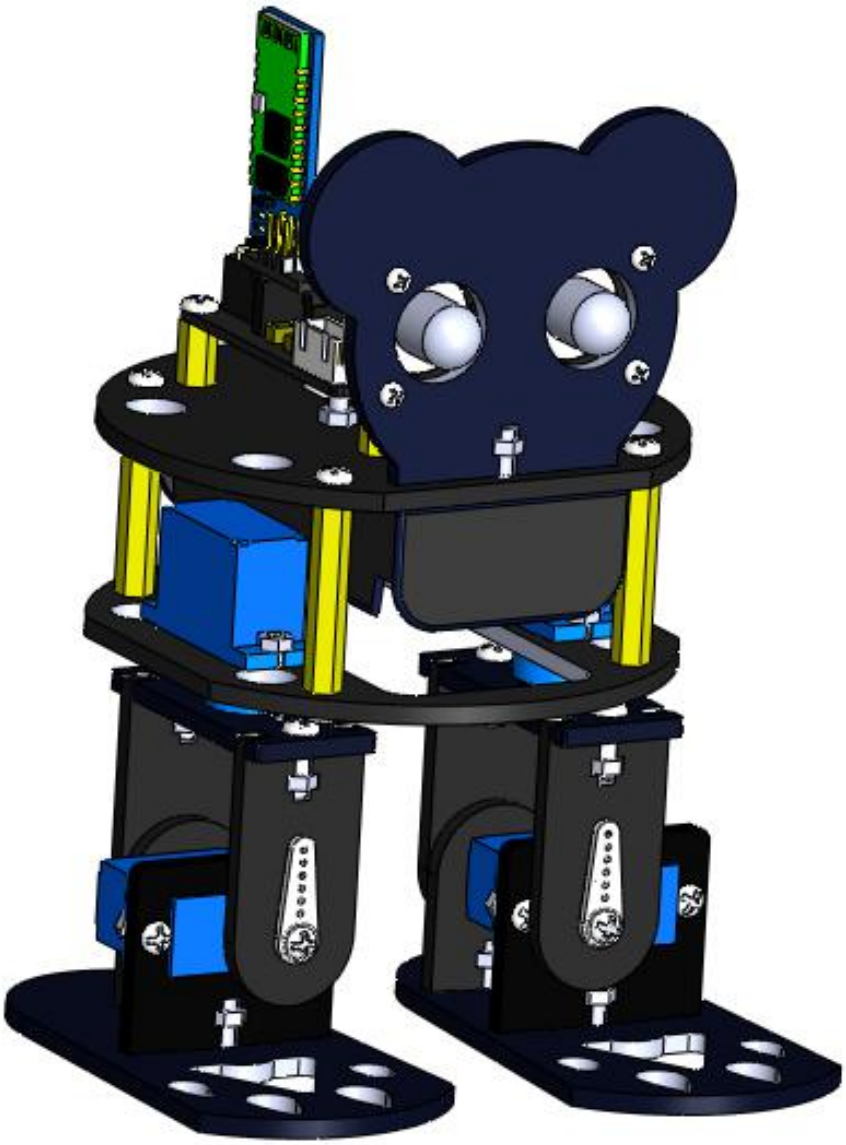




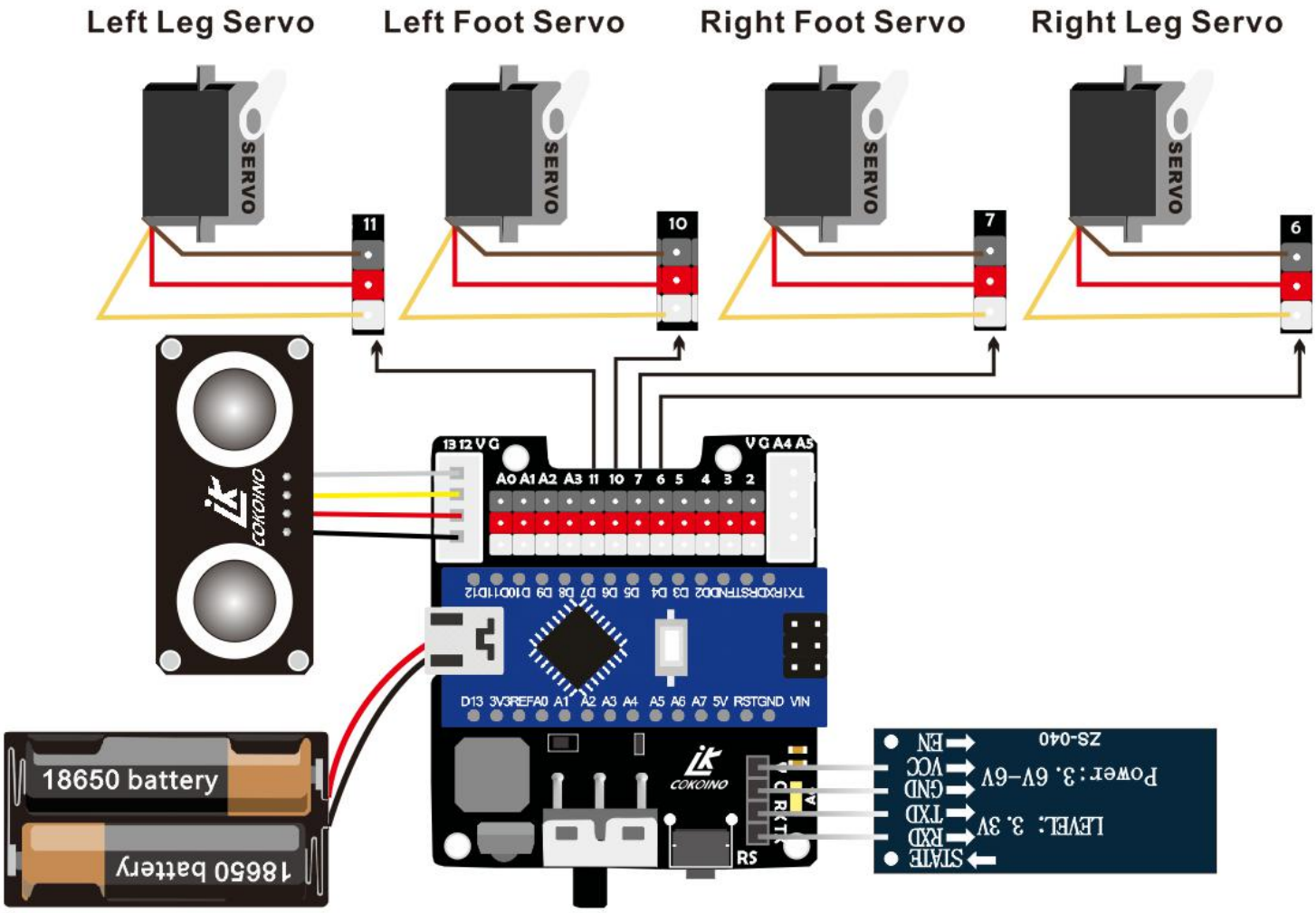


Step 23： Install Bluetooth module and NANO board		Tool： 
Need to prepare：		
semi-finished product of step 22	1	
Bluetooth module	1	
NANO board	1	
Demo：		
Please pay attention to the installation direction of Bluetooth		 

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.