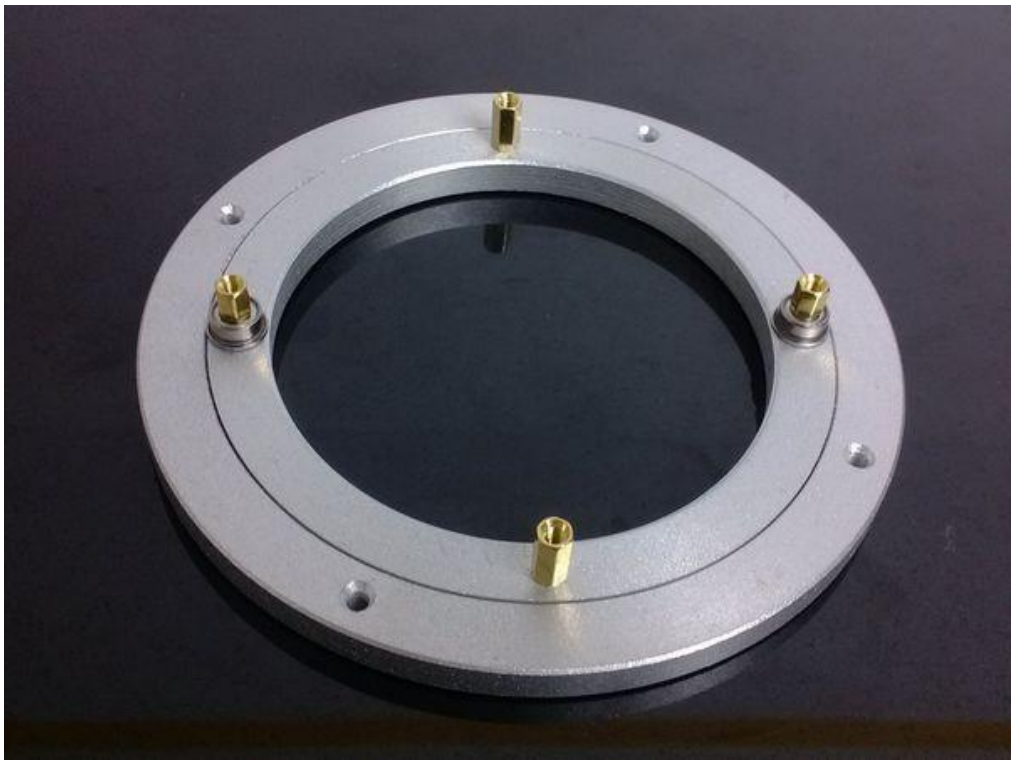
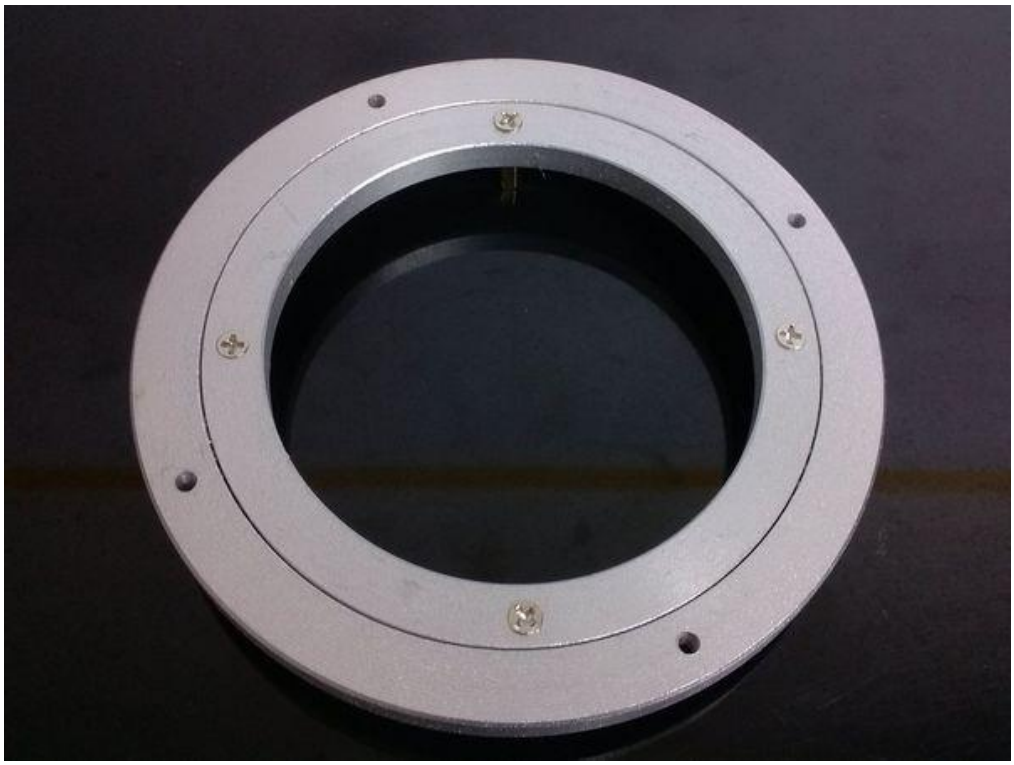
Installation for 6 dof robot arm (big bearing version)

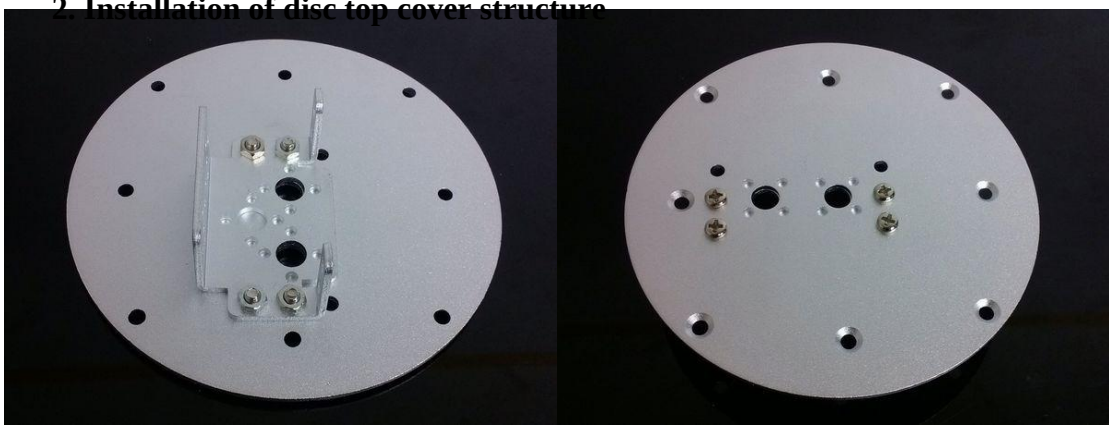
II. Installation of Structural Parts
Prepare all the above-mentioned structural parts, hardware screw fittings and installation tools. Next, enter the installation link. First, install the manipulator.
Each part of the bracket structure.
1. Installation of large disc bearing structure





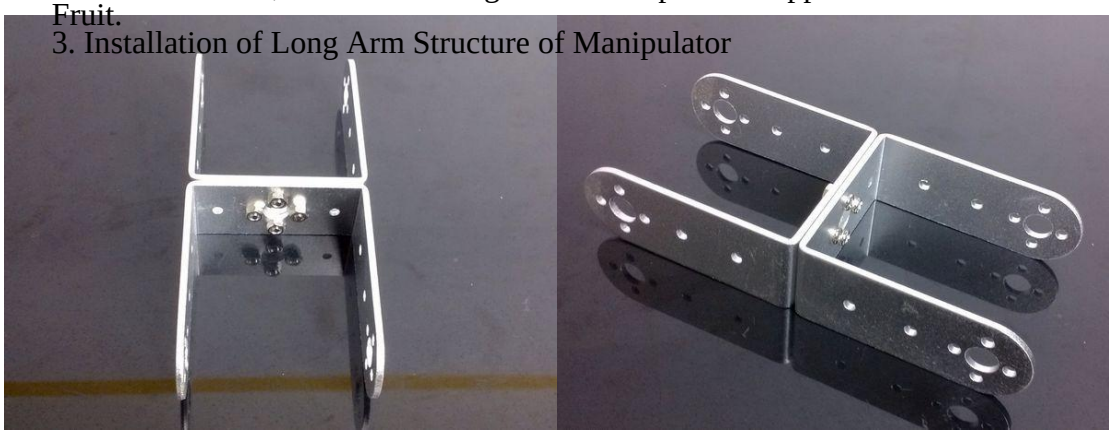
Take one large disc bearing, two flat-head M3*10 double-pass copper columns, two flat-head M3*6 double-pass copper columns and flat-head M3*14.
Two screw, two flat head M3*10 screw and two flange bearings are installed as shown in the figure.
Great attention should be paid to during installation
A nut is placed on the side of the sinking hole in the bearing, so that the nut can be buried in the sinking hole to make the surface smooth and tighten with a sharp nipper.
It achieves the effect of stabilizing the structure.

2. Installation of disc top cover structure



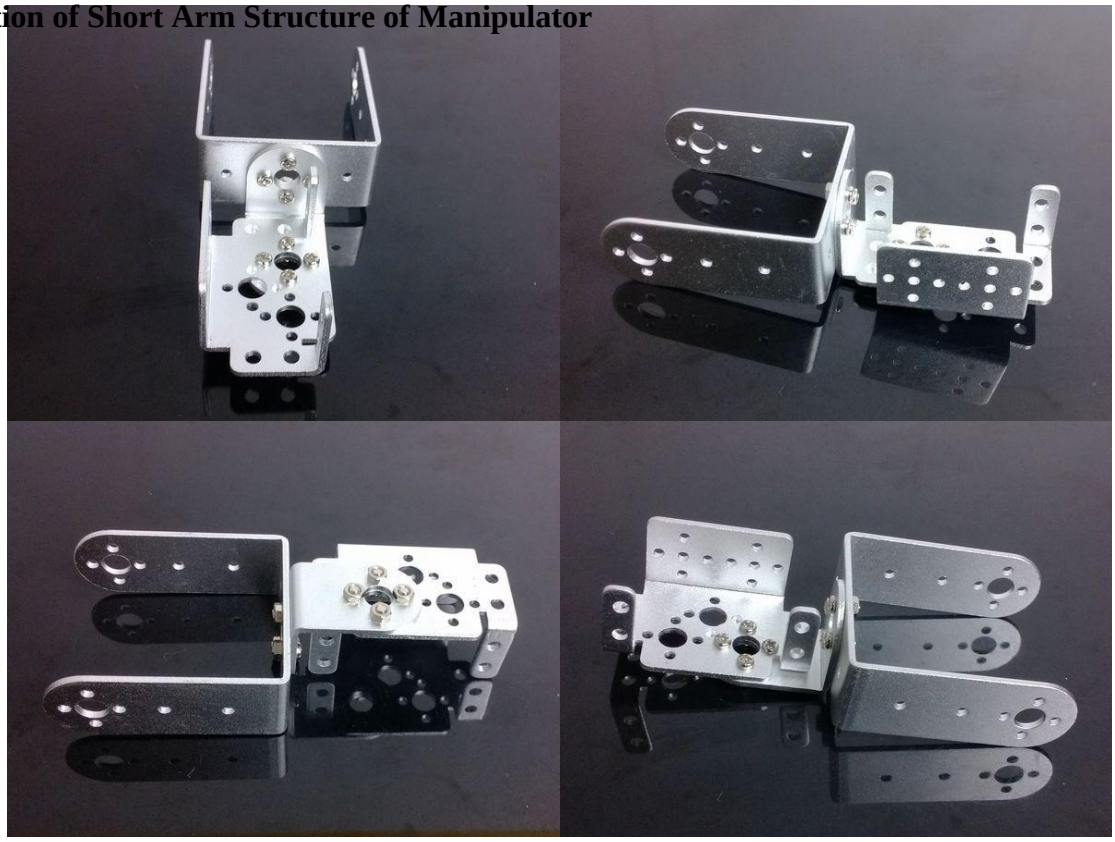
Take one multi-functional bracket, one disk cover plate, four round head M4*6 screws and four M4 nuts, as shown in the figure.
Installation. In the process of installation, the nut is facing down and the nut is facing up. When the screw is installed, it needs to be tightened with pointed nippers to achieve stable structural effect.
Fruit.

3. Installation of Long Arm Structure of Manipulator



Take two long U brackets, four round head M3*7 screws and four M3 nuts, and install them as shown in the figure.
Install screw properly. The wires need to be tightened with pointed nippers to achieve a stable structural effect.

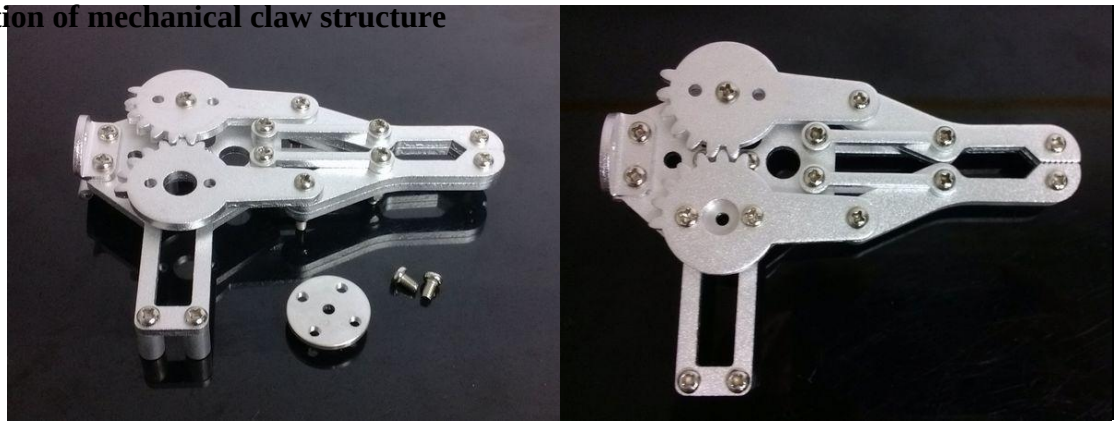
4. Installation of Short Arm Structure of Manipulator



One multi-functional bracket, two L-shaped brackets, one long U-shaped bracket, eight round head M3*7 screws and M3 nuts were taken.
8. Installation as shown. During installation, the screw is pierced through the inner part of the multi-functional bracket, and the nut is tightened outside.
The L-type connector is aligned, and the screw needs to be tightened with a pointed nipper clamp to achieve stable structural effect.
5. Installation of Rotary Structure of Manipulator

Take two multi-functional brackets, two flat head M3*8 screws and two M3 nuts, and install them as shown in the figure. Installation
The screw needs to be tightened with a pointed nipper clamp to achieve a stable structural effect.

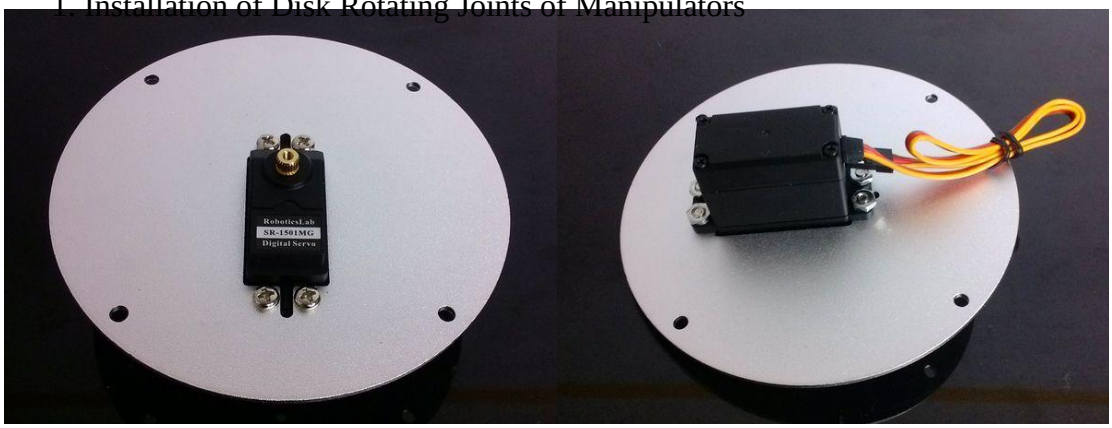
6. Installation of mechanical claw structure



Take one mechanical claw, one metal steering wheel and two round head M3*5 screws and install them as shown in the figure. After installation. Pay attention to the degree of tightness of the opening and closing of the paw by manual test. If the rotating joint is too tightly jammed somewhere, use a screwdriver manually.
Adjust tightness.

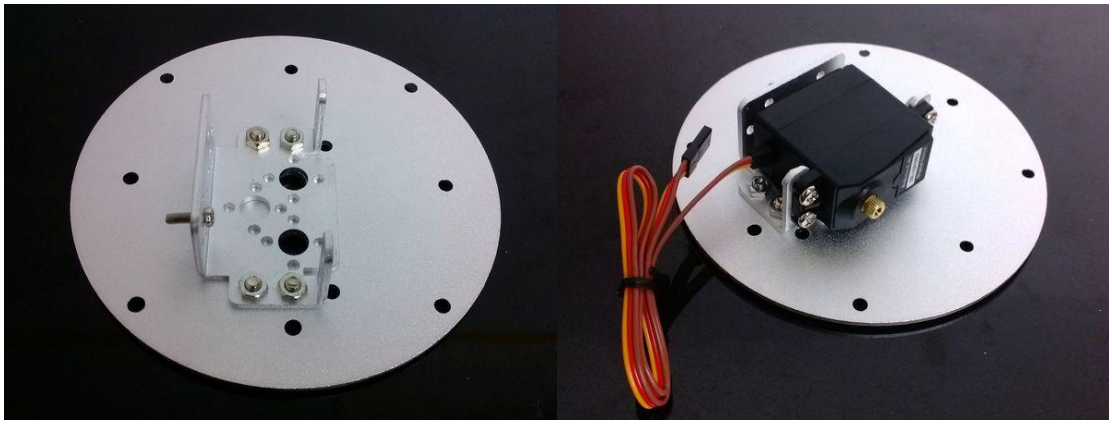
III. Installation of Manipulator Joints-Steering Engine

After step 2, we have completed the installation of the main structure bracket of the manipulator. Next, we begin to install the joint of the manipulator.
Steering gear.
By default, all steering engines are adjusted to the middle position (i.e. the maximum range of left and right motion of the steering gear) before they are installed.
Do not rotate the steering gear, if you accidentally rotate the steering gear, you need to use the upper computer software to adjust to the middle position, or use the steering gear to measure.
The tester is adjusted to the middle position, and the value of the middle position of the steering gear is 1500. The following illustrates the installation process with a digital steering gear as an example. (Adopted)
Each joint is installed in the middle position of the steering gear, and the range of motion is limited. If a joint needs to move at a large angle, attention should be paid to it.
It is necessary to adjust the appropriate steering angle to make the effective rotation angle of the joint meet the requirements.
1. Installation of Disk Rotating Joints of Manipulators



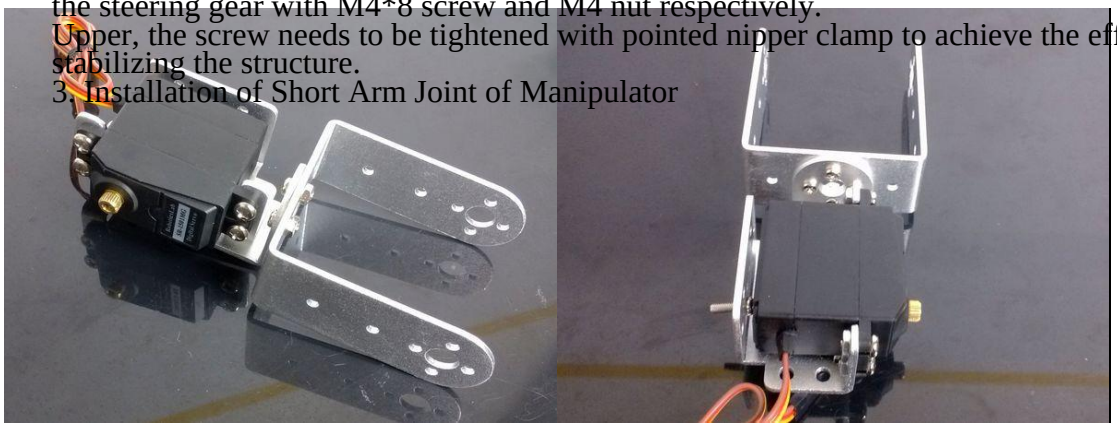
Take the disc lower cover plate 1, servo steering gear 1, round head M4*8 screw 4, M4 nut 4, and install as shown in the figure. Installation of the screw needs to be tightened with pointed nippers to achieve stable structural effect.

2. Installation of Long Arm Joint of Manipulator



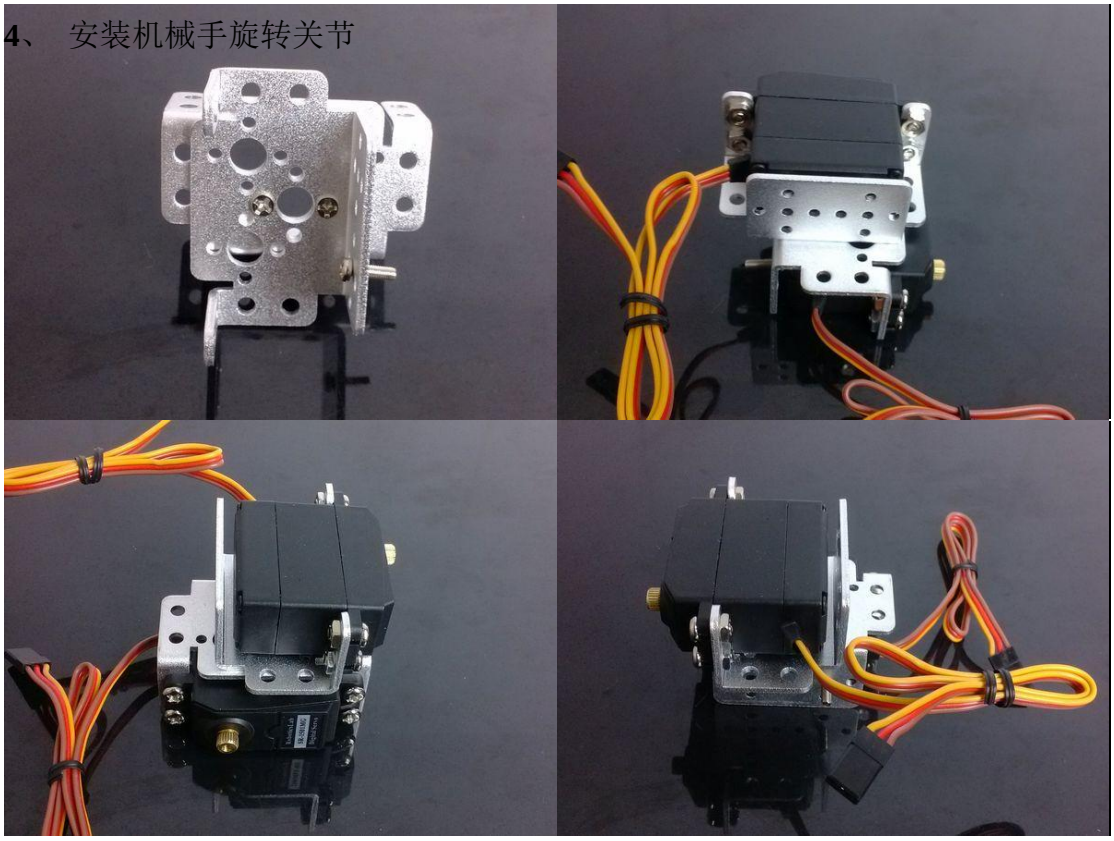
Take the mounted upper cover plate structure of the manipulator disk, one servo steering gear, one round head M3*10 screw and one round head.
There are 4 M4*8 screws and 4 M4 nuts. Firstly, as shown in the figure, the M3*10 screw is passed out from the inside of the multi-functional bracket.
Installation, the screw is used to install flange bearings at the back, so the position of the screw must be installed before installing the steering gear.
The mounting position of M3*10 screw must be in the middle and middle hole of the inner side of the multi-functional bracket to keep the extended bearing with the steering gear in place.
A horizontal line. Install the steering gear and fix the four corners and multi-function brackets of the steering gear with M4*8 screw and M4 nut respectively.
Upper, the screw needs to be tightened with pointed nipper clamp to achieve the effect of stabilizing the structure.

3. Installation of Short Arm Joint of Manipulator



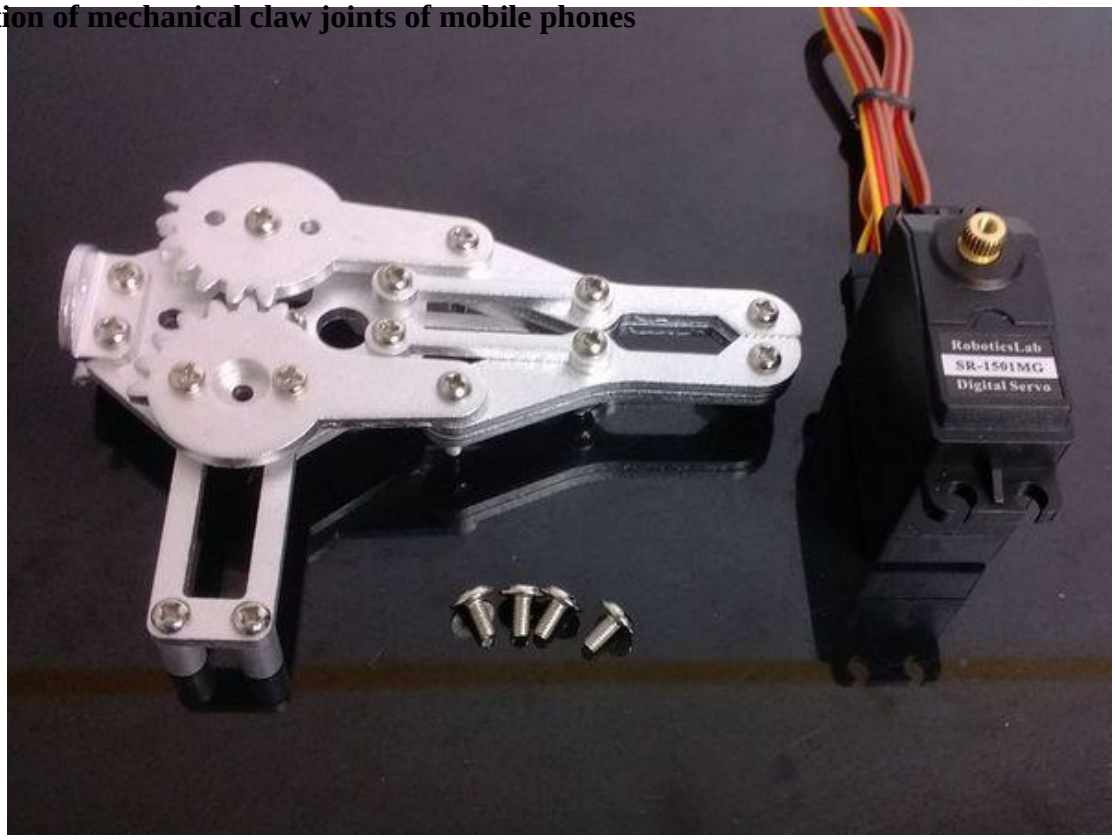
Take one short arm structure, one servo steering gear, one round head M3*10 screw and round head M4*8 of the installed manipulator.
Four screws and four M4 nuts. Firstly, as shown in the figure, the M3*10 screw is inserted outward from the inside of the multi-functional bracket.
The screw is used to install flange bearings at the back, so the position of the screw must be installed before installing the steering gear. Note: M3*10
The installation position of the screw must be in the middle and inside hole of the multi-functional bracket to keep the extended bearing of the steering gear at the same level as that of the steering gear.
On-line. Install the steering gear. Fix the four corners of the steering gear and the multi-functional bracket with M4*8 screw and M4 nut respectively. Install the steering gear.
A good screw needs to be tightened with a pointed nipper clamp to achieve a stable structural effect.

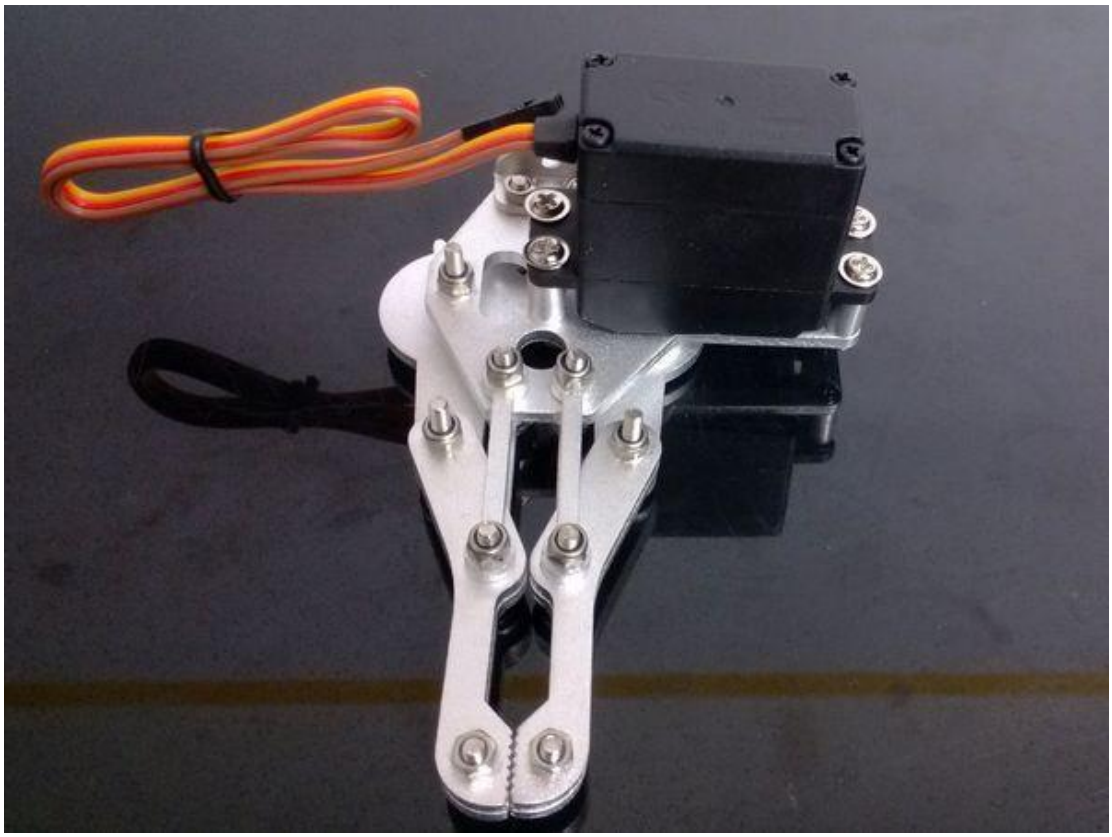
4、 安装机械手旋转关节



Take the installed rotatory structure of the manipulator, two servo actuators, one round head M3*10 screw and round head M4*8.
There are 8 screws and 8 M4 nuts. Firstly, as shown in the figure, the M3*10 screw is inserted outward from the inside of the multi-functional bracket.
The screw is used to install flange bearings at the back. Note: The mounting position of M3*10 screw must be on the inner side of the multi-functional bracket.
The middle hole position is maintained on a horizontal line with the extended bearing of the steering gear. Install steering gear with M4*8 screw and M4 nut
Fixed the four corners of the steering gear and the multi-functional bracket separately. When the screw is installed, it needs to be tightened by the pointed clamp to achieve the stable structure effect.

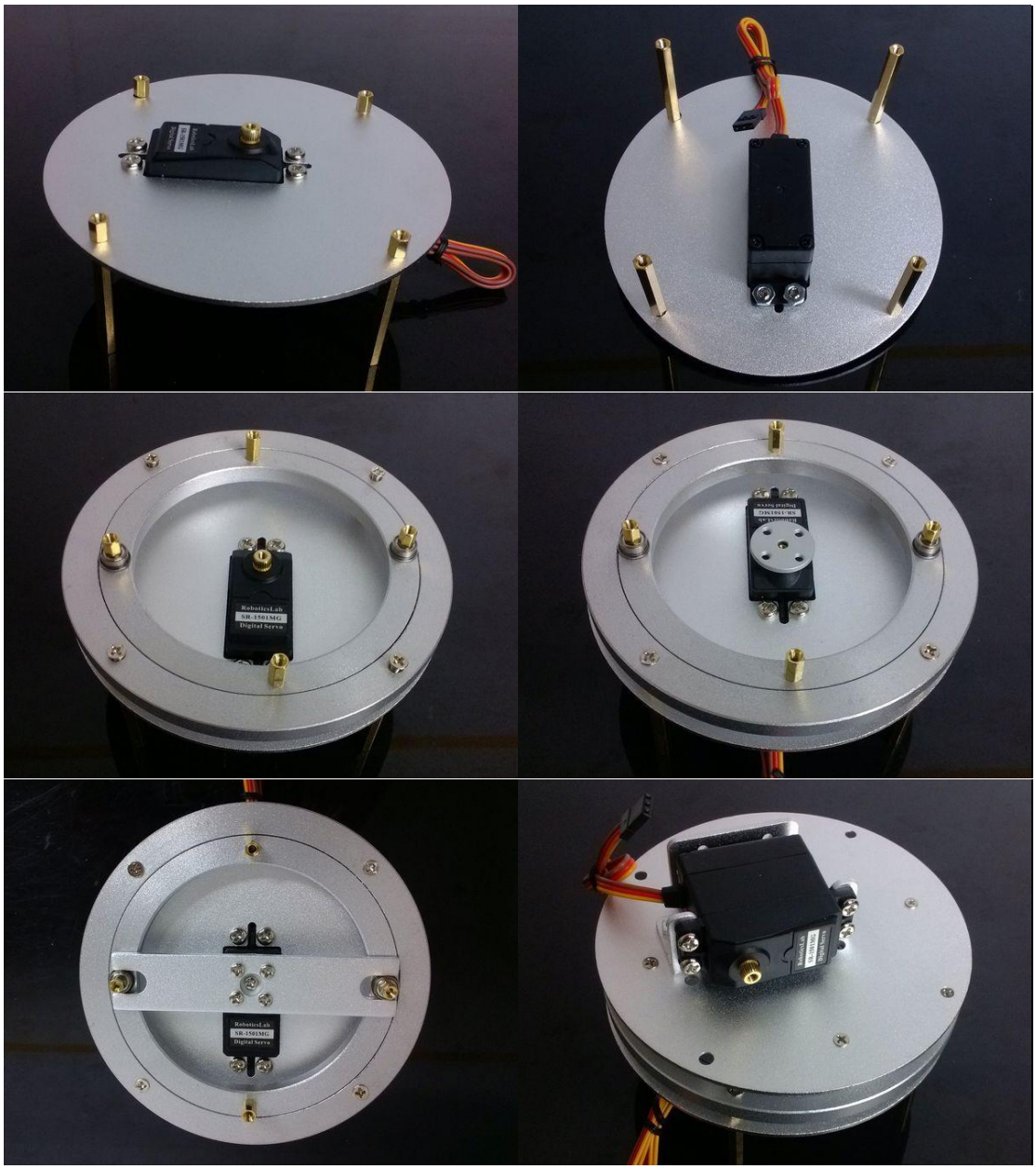
5. Installation of mechanical claw joints of mobile phones

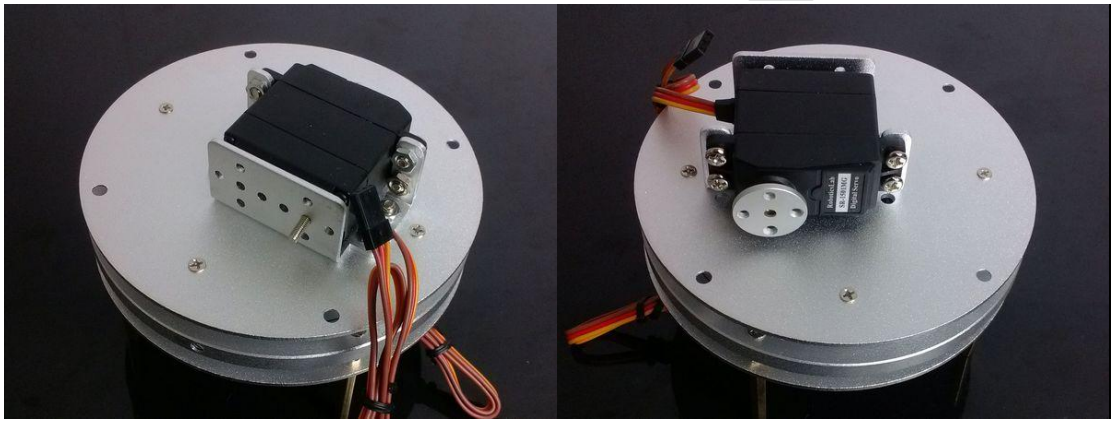




One mechanical claw structure, one servo steering gear, four M3*6 screws with meson round head and one M3*6 screw with round head were installed. Firstly, as shown in the figure, the steering gear is fixed on the metal steering wheel of the claw, and then four ears of the steering gear are fixed with the meson screw. Finally, M3*6 screw is installed in the middle aperture of the metal steering wheel to firmly fix the steering gear and the metal steering wheel.

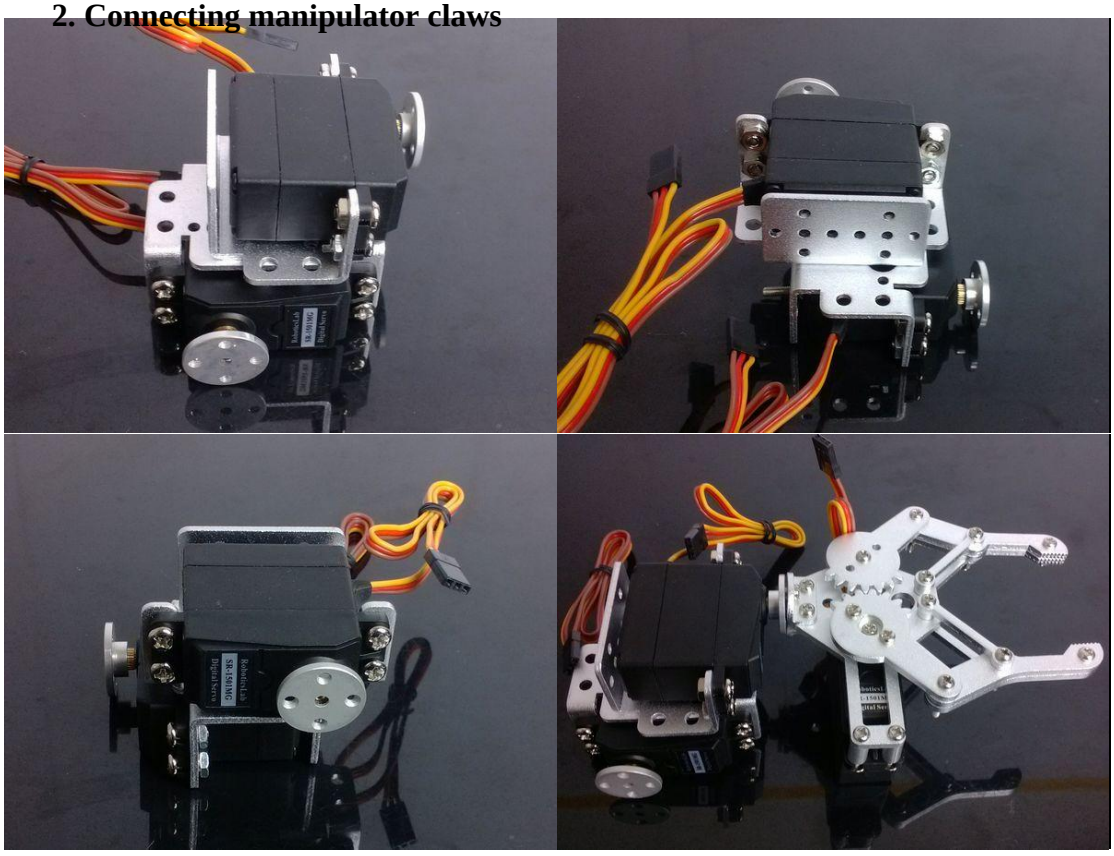
IV. Connecting the parts of the manipulator
After the first few steps, all parts of the manipulator have been installed, the rest of the work is how to connect the various parts of the structure, assembly and forming.
1. Connecting manipulator discs





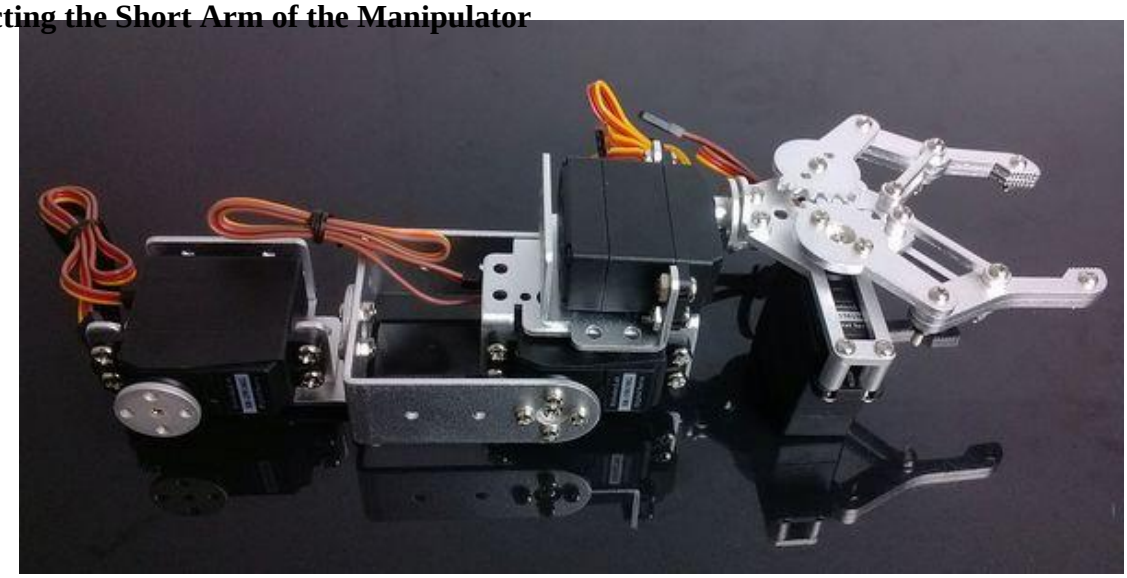
Take one lower cover plate, one upper cover plate and one large disk bearing, one disc plug-in and one metal rudder plate 2.
M3*40 double-pass copper column, M3*6+6 copper column, flat head M3*10 screw, flat head M3*4 screw
Four round head M3*5 screw and one round head M3*6 screw. Firstly, as shown in the figure, the lower cover plate of the disc is first installed with a copper column.
Okay, then cover the large disc bearing, fix the four holes around with the flat head M3*10 screw, and install the metal steering wheel on the rotary steering gear.
Make sure that the insert is placed horizontally so that the disc can rotate symmetrically to the left and right. Finally, cover the disc with a flat head.
M3*4 screw fixed four corners.

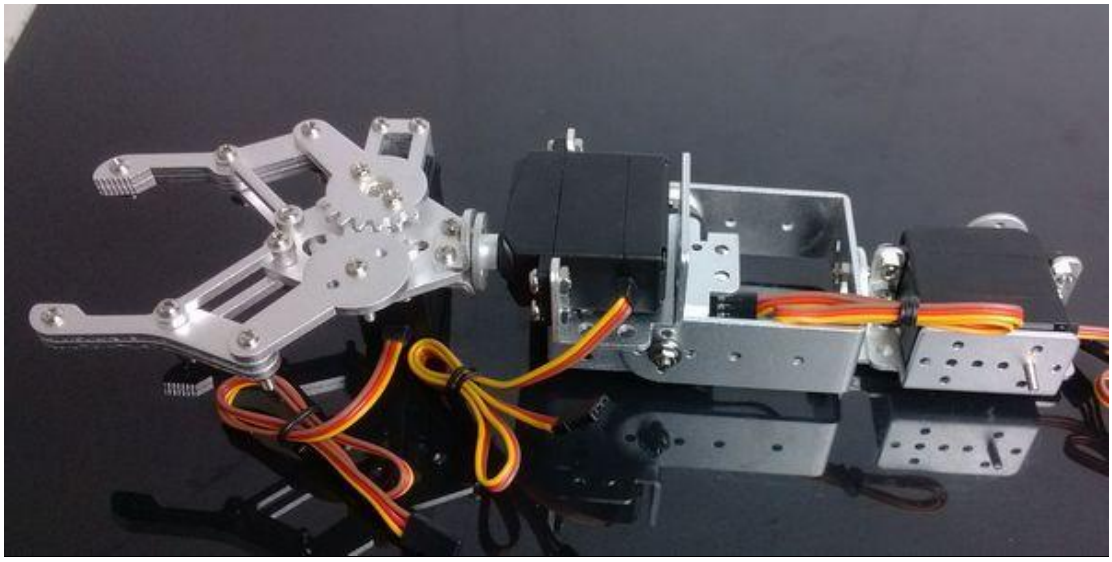
2. Connecting manipulator claws



Installed rotating joints, 1 Mechanical claw, 2 metal steering wheel and 3 round head M3*6 screw were taken. As shown in the figure, the middle hole of the metal rudder disc to be connected is fixed with the round head M3*6 screw first, and then the mechanical claw is connected with the rudder disc.

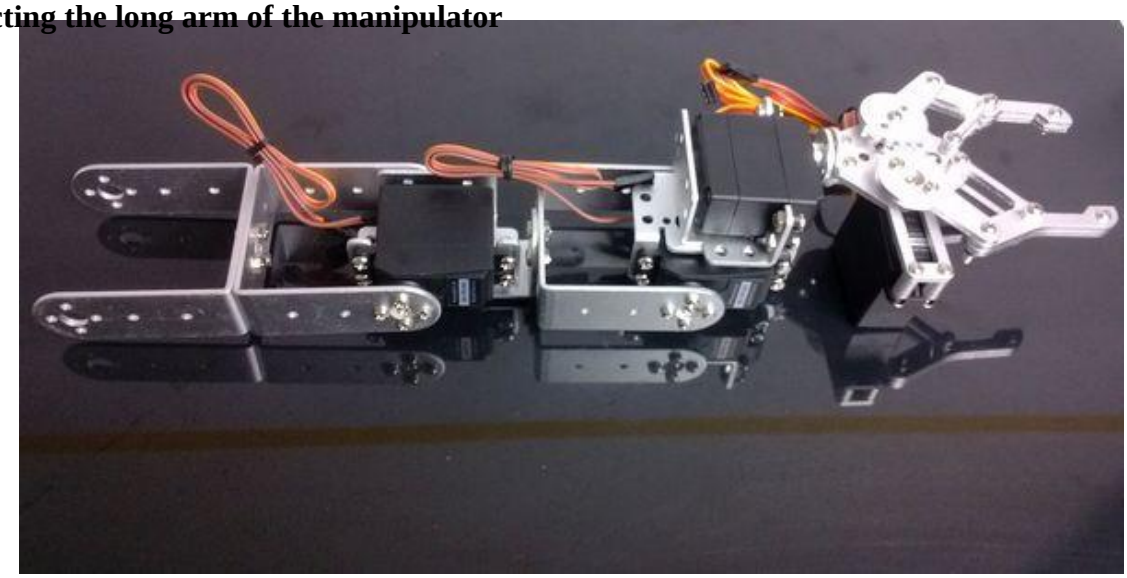
3. Connecting the Short Arm of the Manipulator





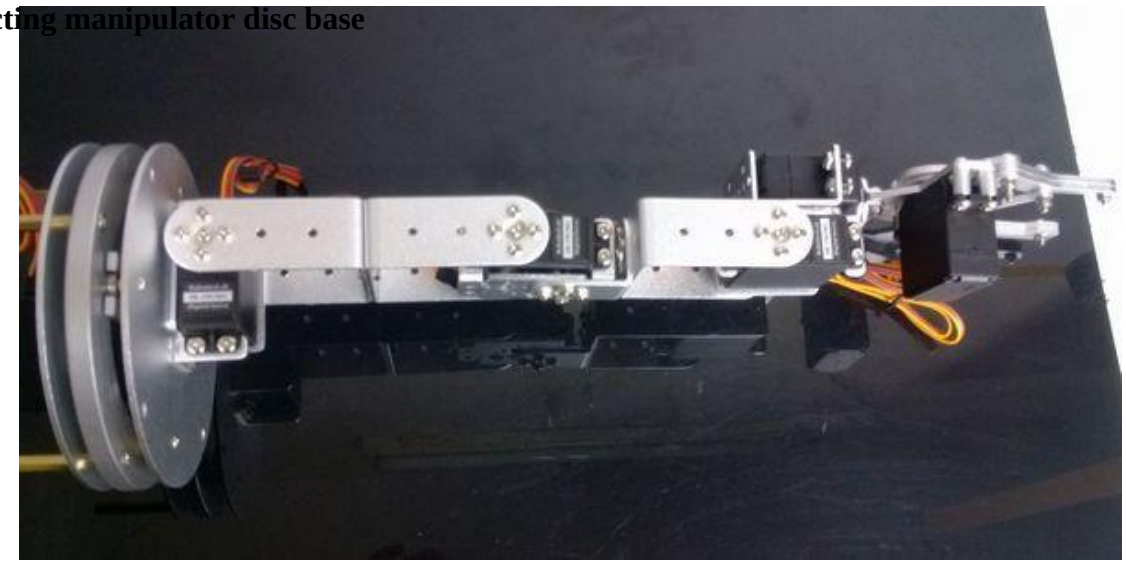
One mechanical claw, one short arm joint, one metal steering wheel, four round head M3*5 screws, one round head M3*6 screw, one flange bearing and one M3 nut were installed in the previous step. As shown in the figure, the short arm joint is sleeved on the rotating joint, the bracket and the metal steering wheel are fixed by screw, the flange bearings are used to fix the side firmly, and the nipple clamps are used to fix the bracket.

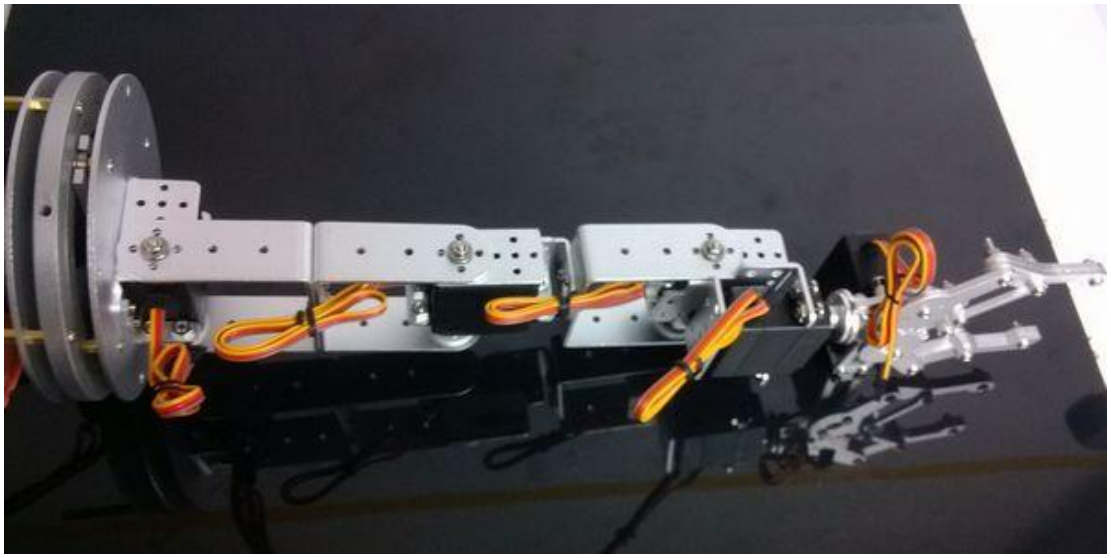
4. Connecting the long arm of the manipulator



Take one mechanical arm, one long arm joint, one metal steering wheel, four round head M3*5 screw, one round head M3*6 screw, one flange bearing and one M3 nut installed in the previous step. As shown in the figure, the long arm joint is sleeved on the short arm joint, the bracket and the metal steering wheel are fixed by screw, the flange bearings are used to fix the side firmly, and the nipple clamps are used to fix the bracket.

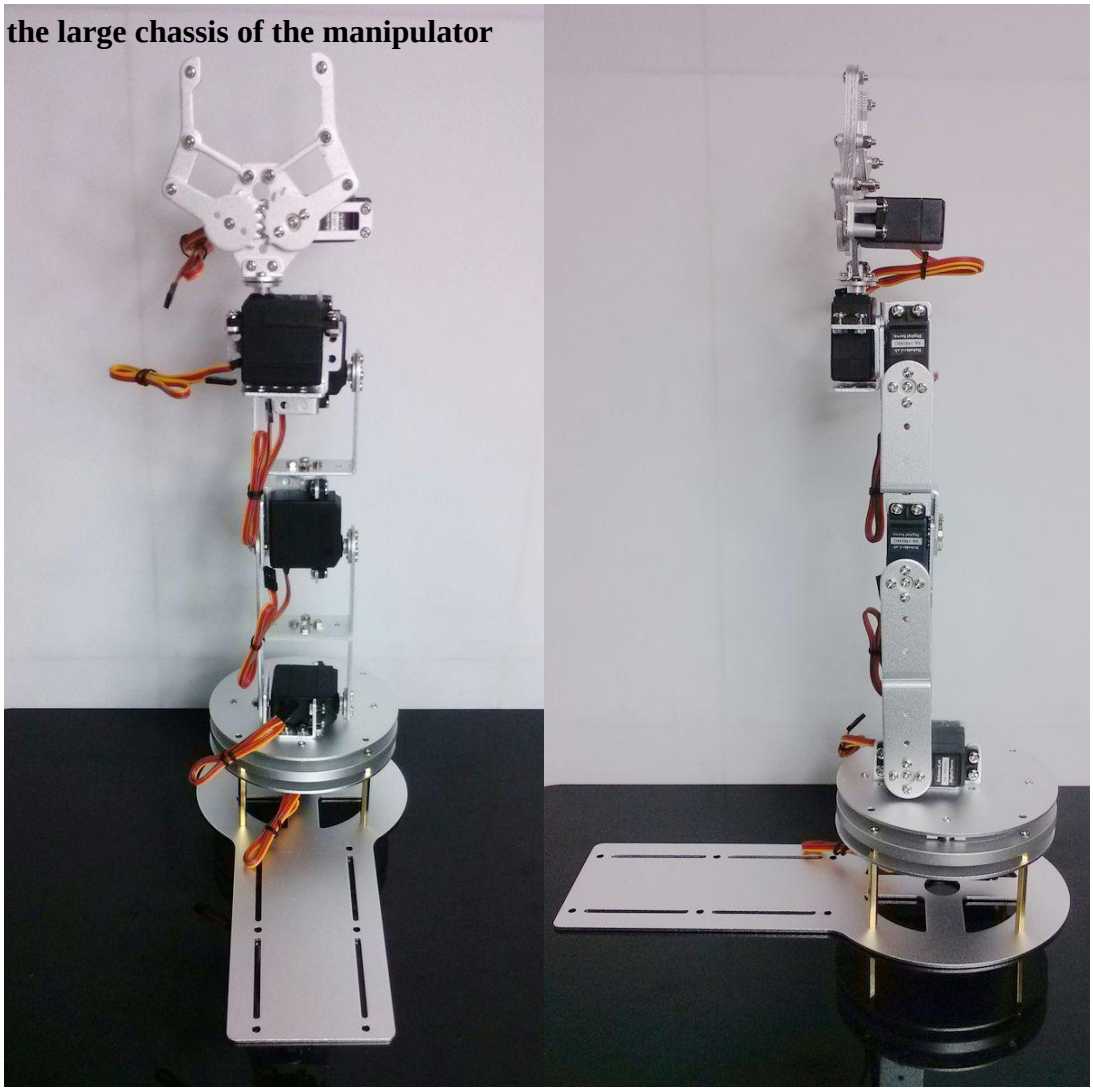
5. Connecting manipulator disc base





Take the first step to install a mechanical arm, a disc base, four round head M3*5 screws, one round head M3*6 screw, one flange bearing, and one M3 nut. As shown in the figure, the joint sleeve of the long arm of the manipulator is placed on the joint of the disc base, the bracket and the metal rudder plate are fixed by screw, the flange bearings are used to fix the side firmly, and the nipple clamps are used to fix the bracket.

6. Connect the large chassis of the manipulator



Take the first step of the installation of a mechanical arm, a large bottom plate of the manipulator, flat head M3*6 screw 4. As shown in the figure, connect the large base plate with the disc base, pay attention to the sinking hole facing down and install firmly.