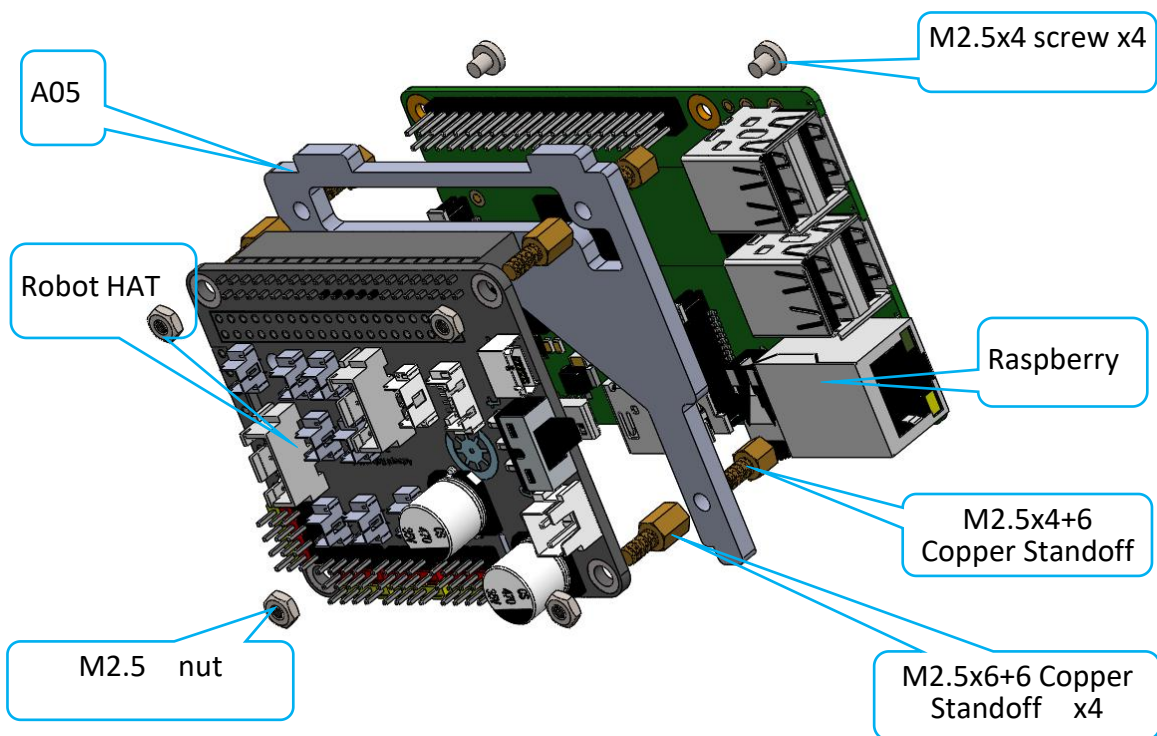


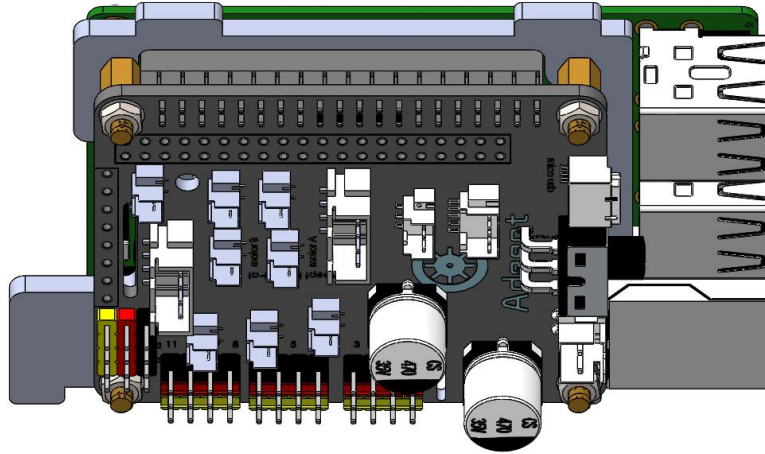
Assembly Tutorial

Plugging the Robot HAT into the Raspberry Pi

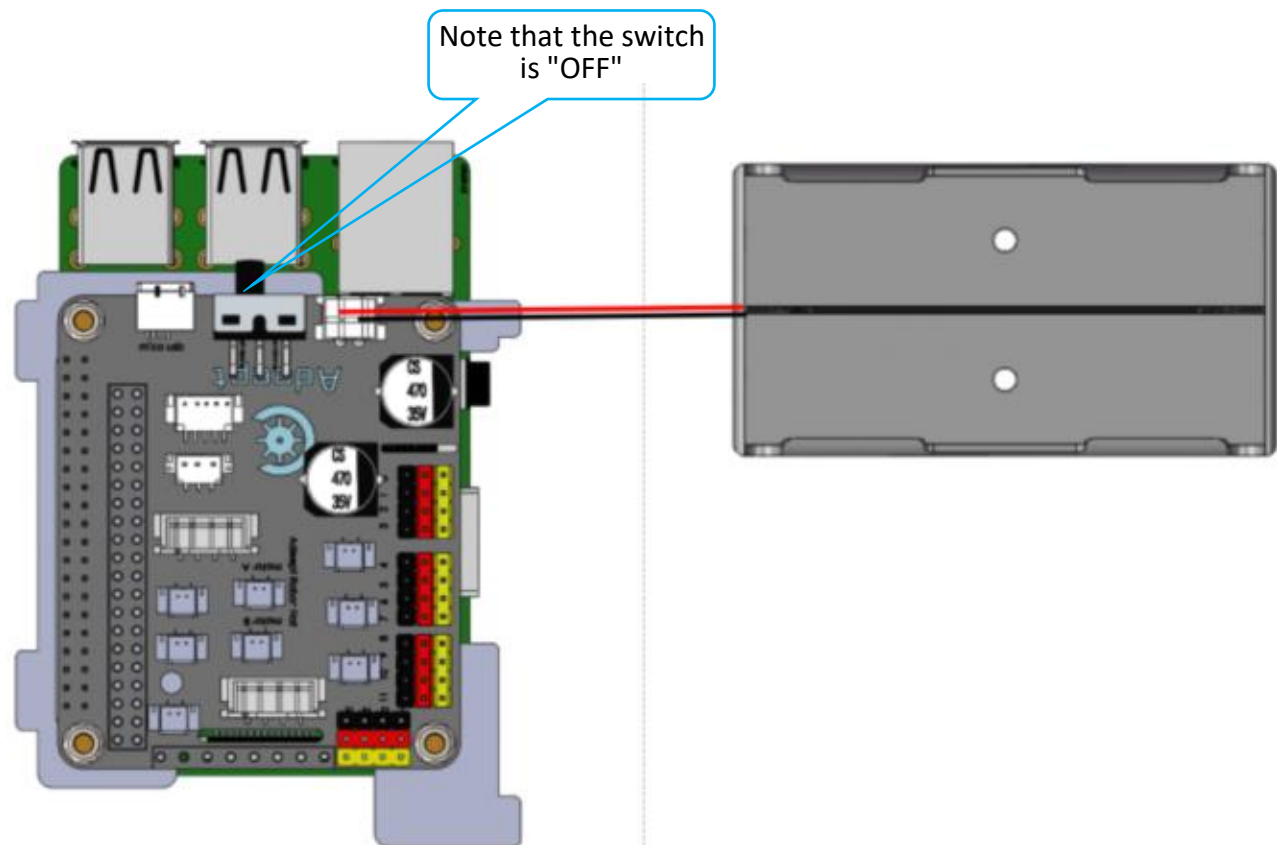
Assemble Raspberry Pi, Robot HAT, and A05.



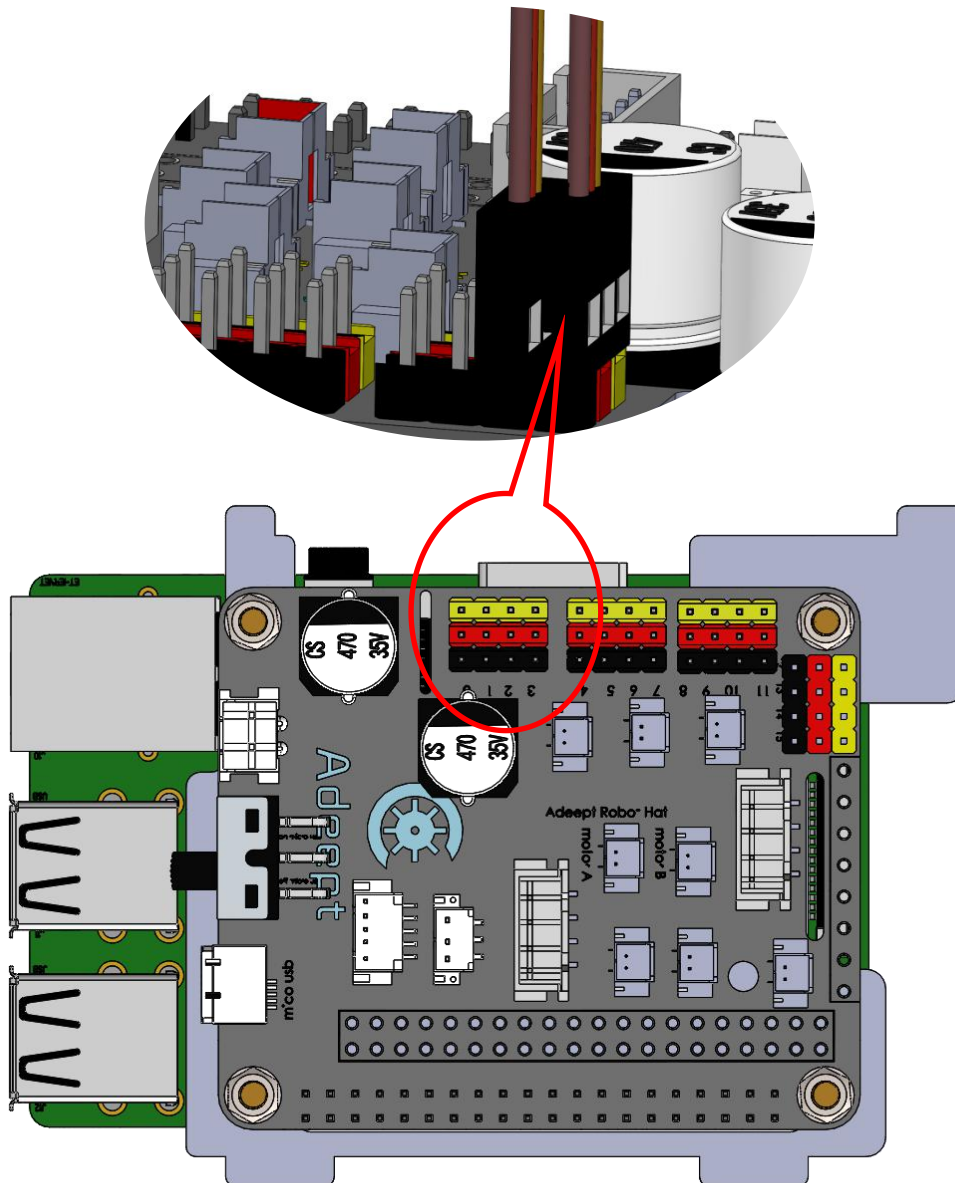
Effect diagram after assembling.



Connect the 18650 Battery Holder Set to the Adeept Robot HAT.

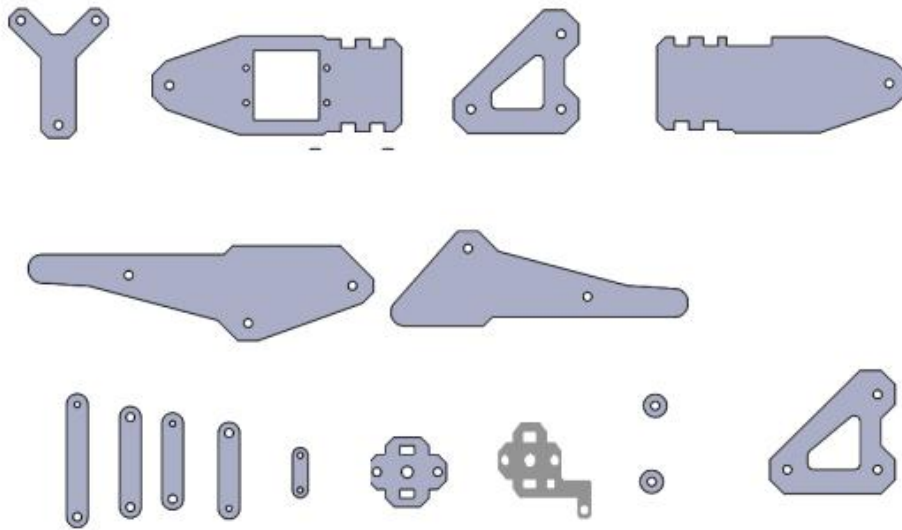


Connect the servos to Adeept Robot HAT. And the Raspberry Pi will automatically adjust the servo to the designated angle. The yellow wire is connected to the yellow pin, the red wire to the red pin, and the brown wire to the black pin.

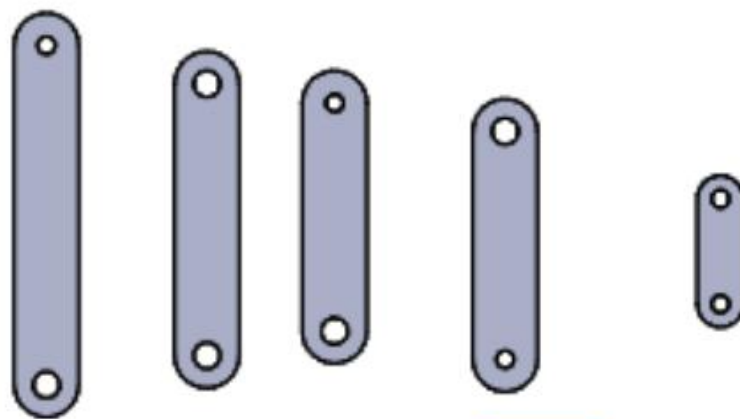


Assembling Legs

Acrylic plates needed:



For convenience, we numbered the following similar



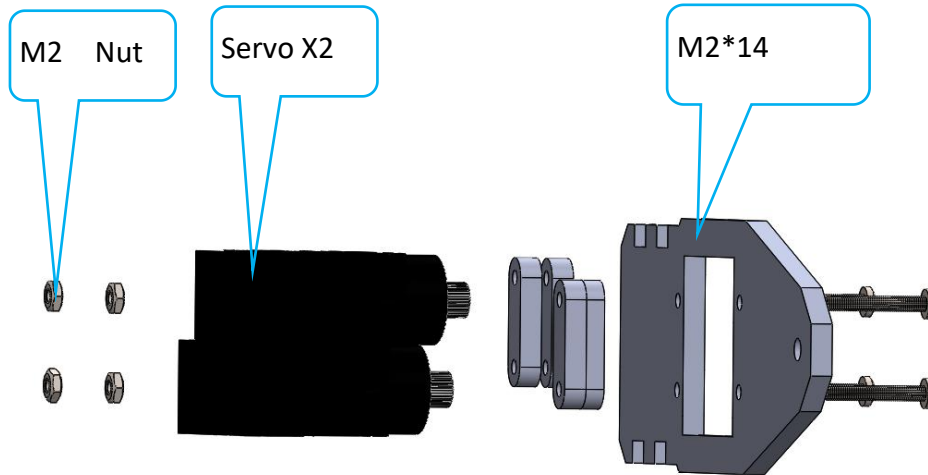
No: 3

No: 4

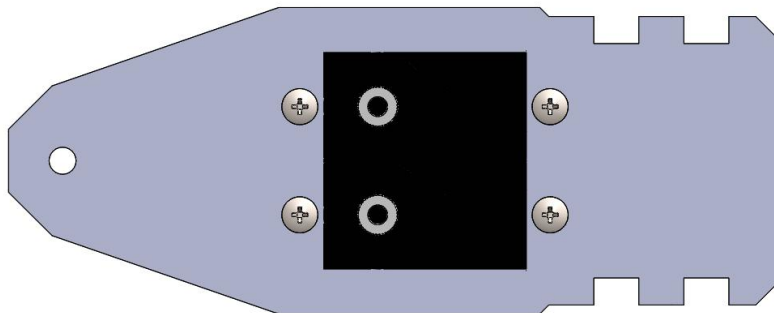
No.1 is the
shortest

No: 2

Fix the servo on the acrylic plate.

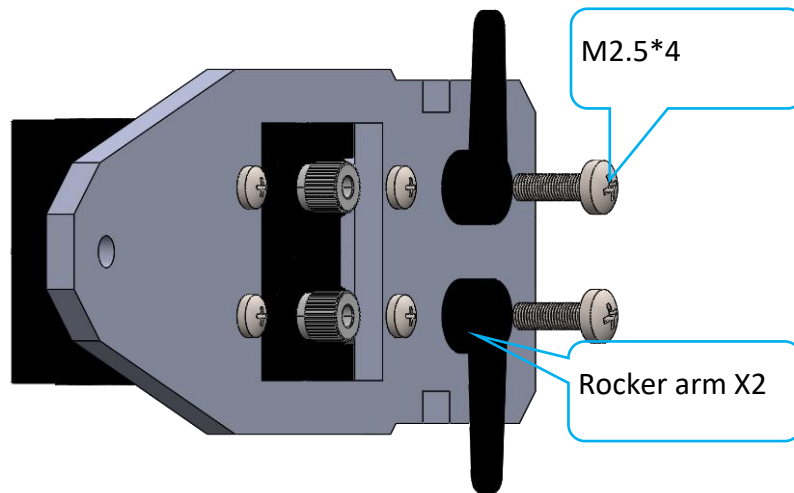


Effect diagram after assembling:

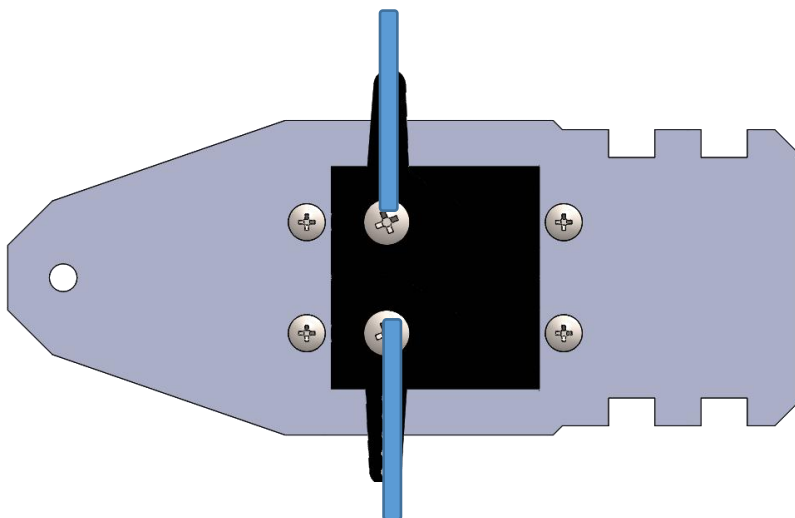


Install the rocker arm on the servo.

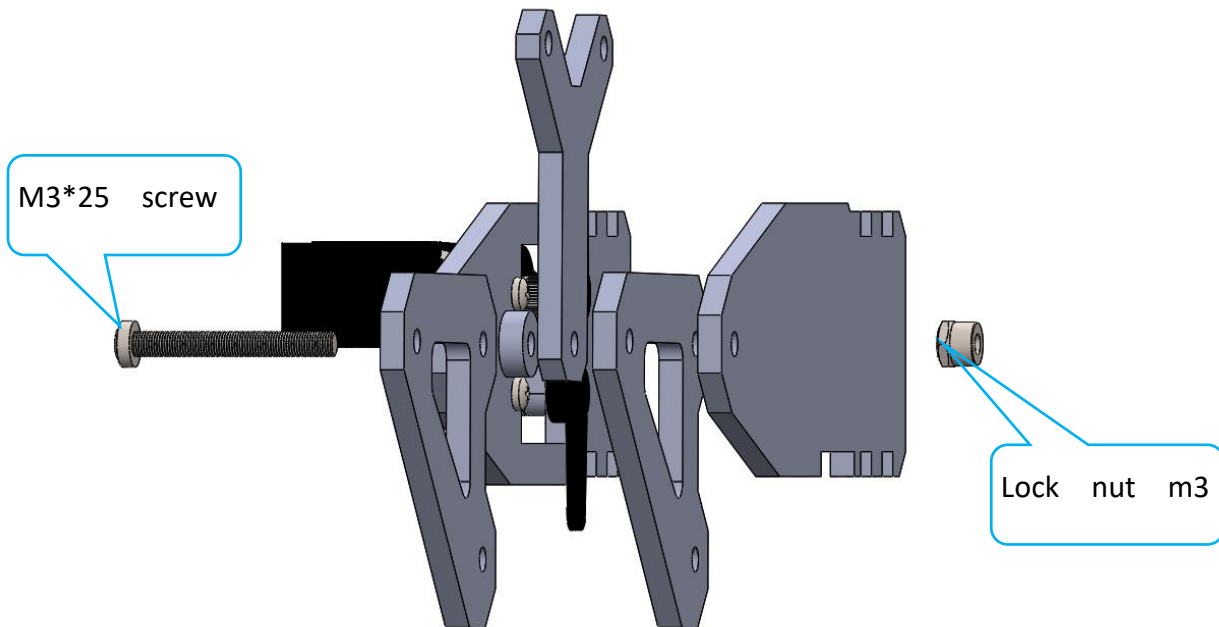
Please note that the servo is connected to the Raspberry Pi robot HAT, install the rocker arm at the angle as shown in the picture.



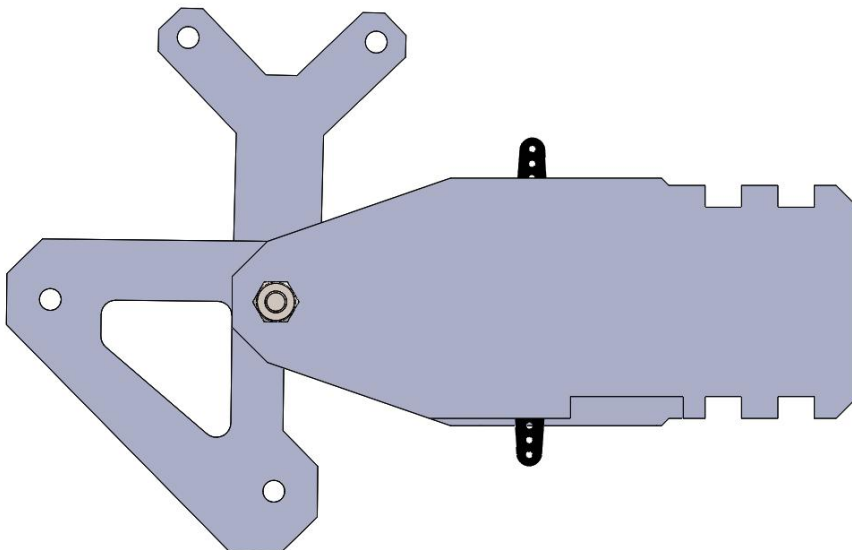
Effect diagram after assembling



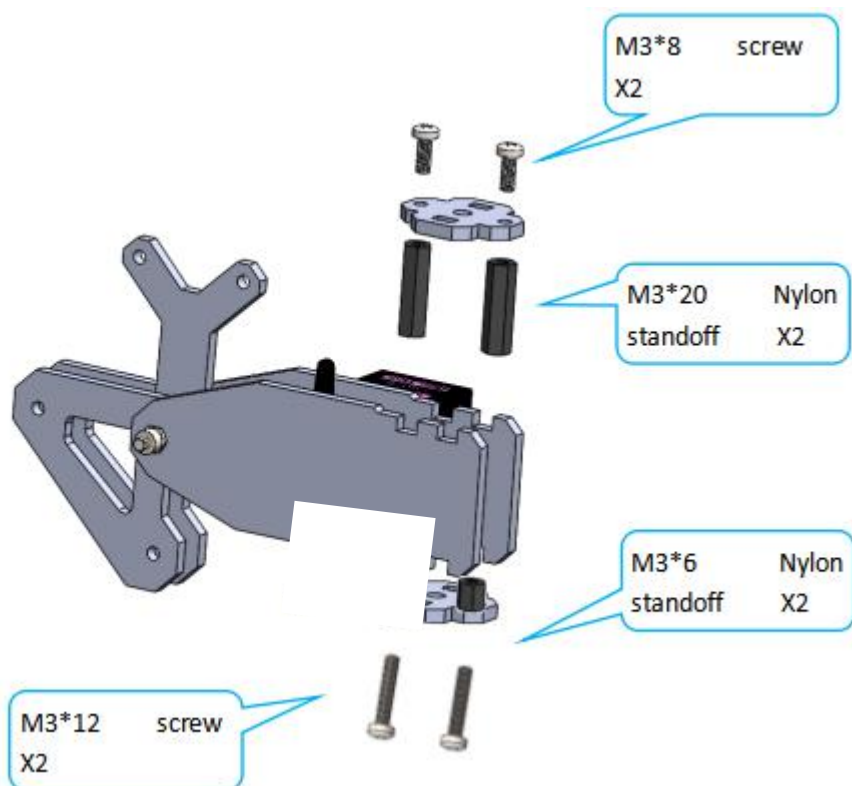
Assemble the following components



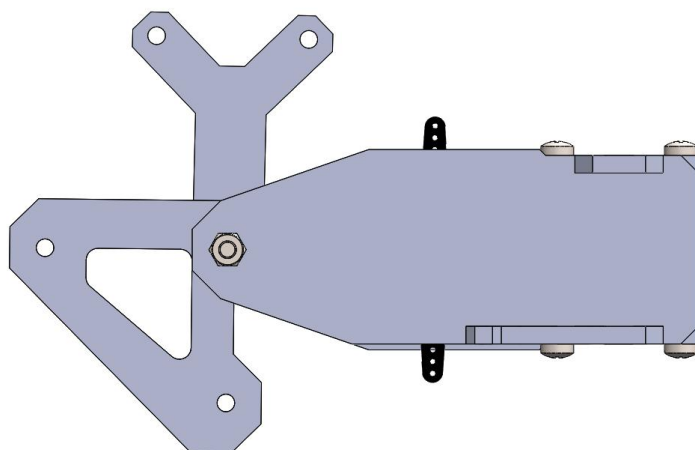
Effect diagram after assembling



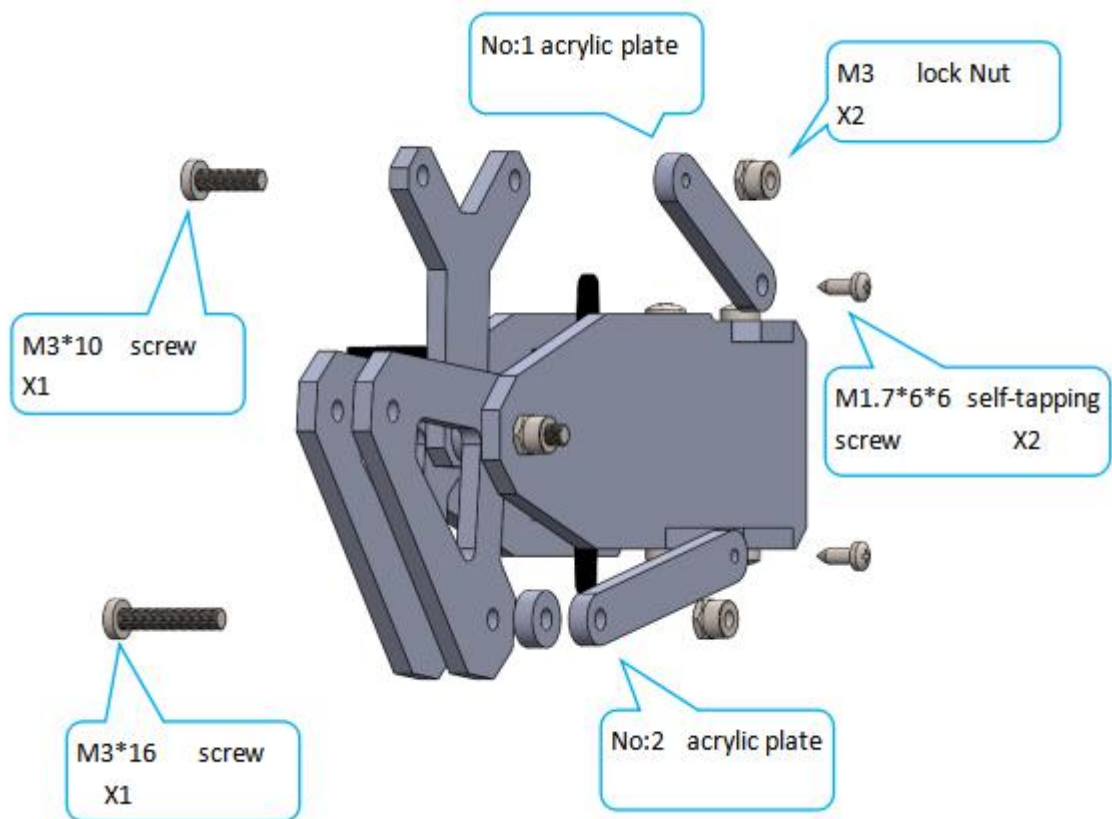
Assemble the following components



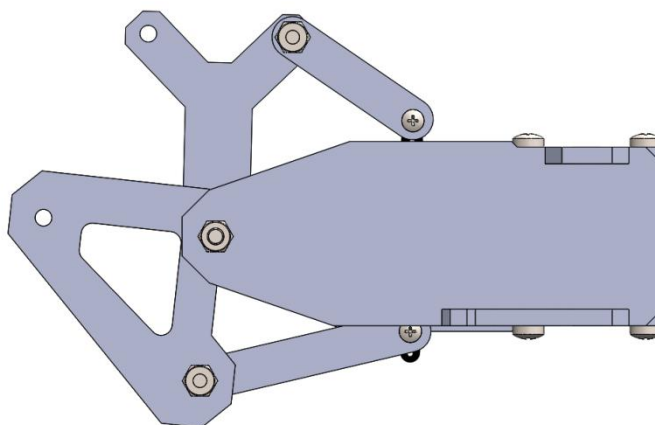
Effect diagram after assembling



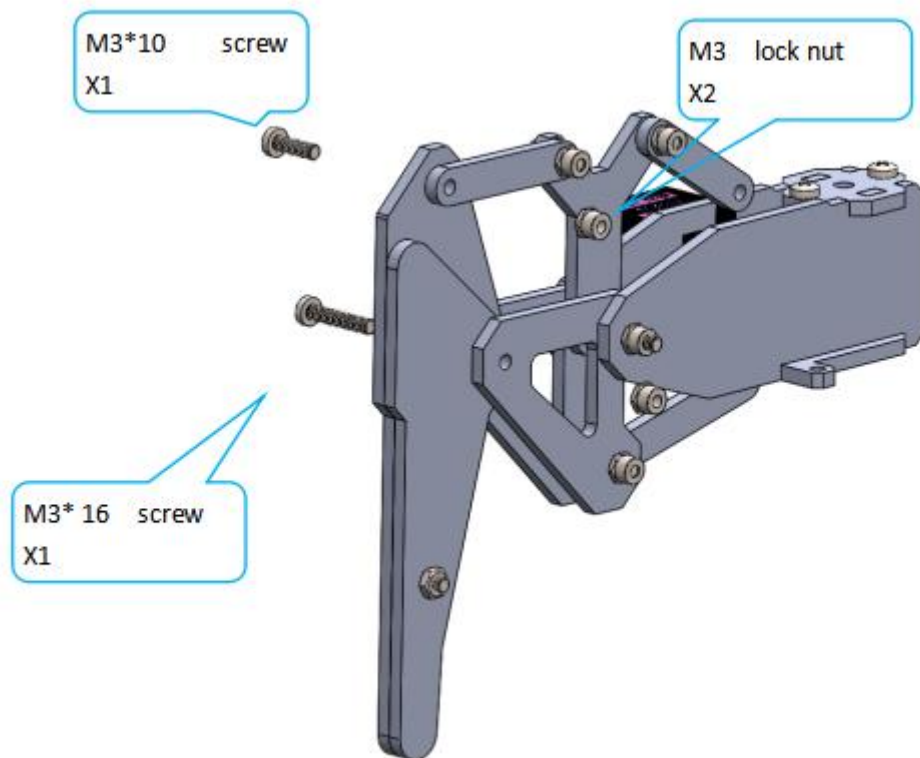
Assemble the following components



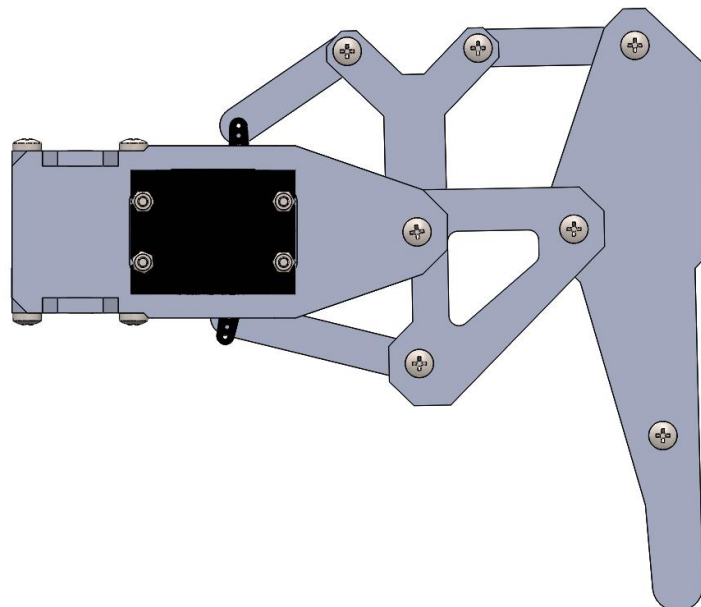
Effect diagram after assembling



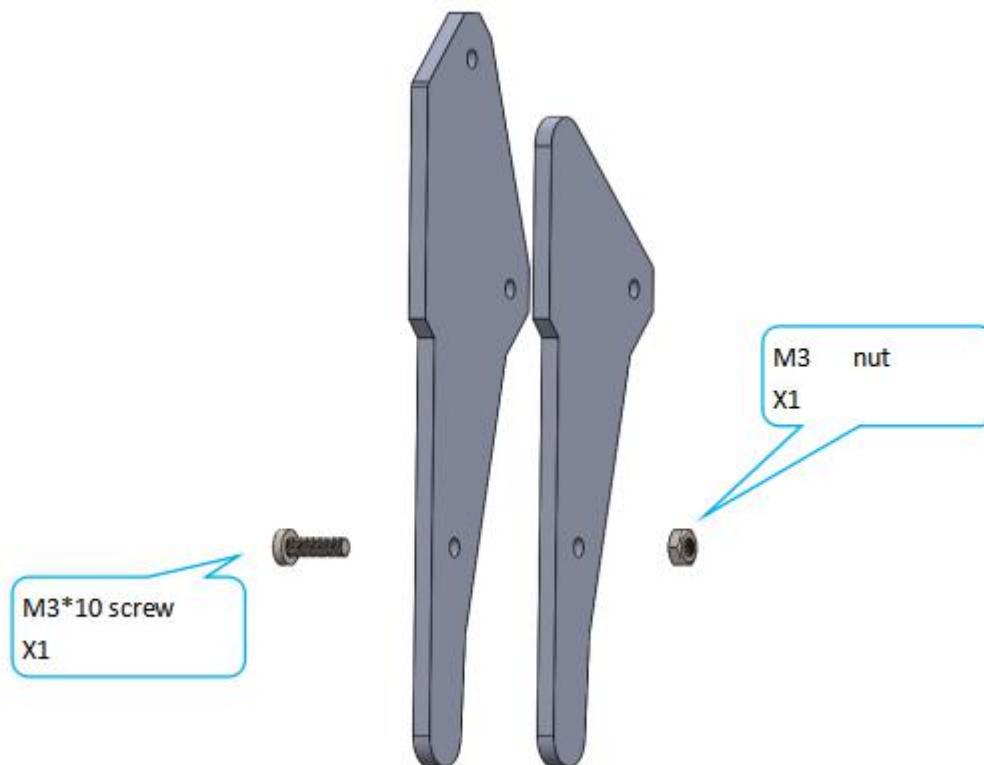
Assemble the following components



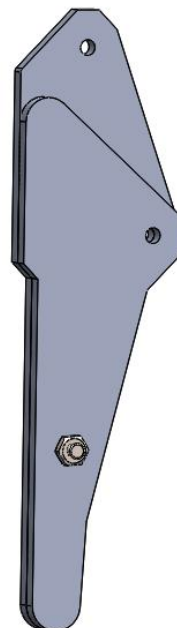
Effect diagram after assembling



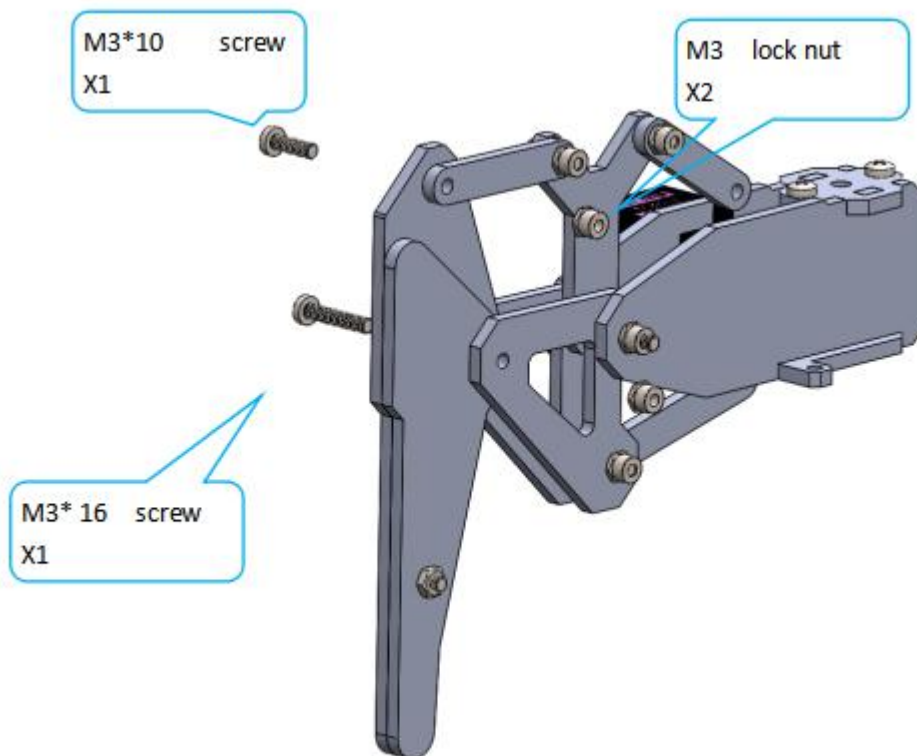
Assemble the following components



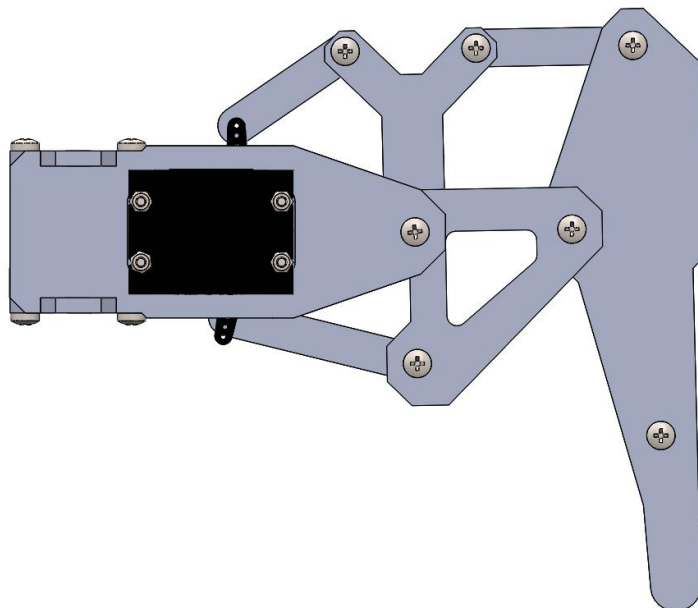
Effect diagram after assembling



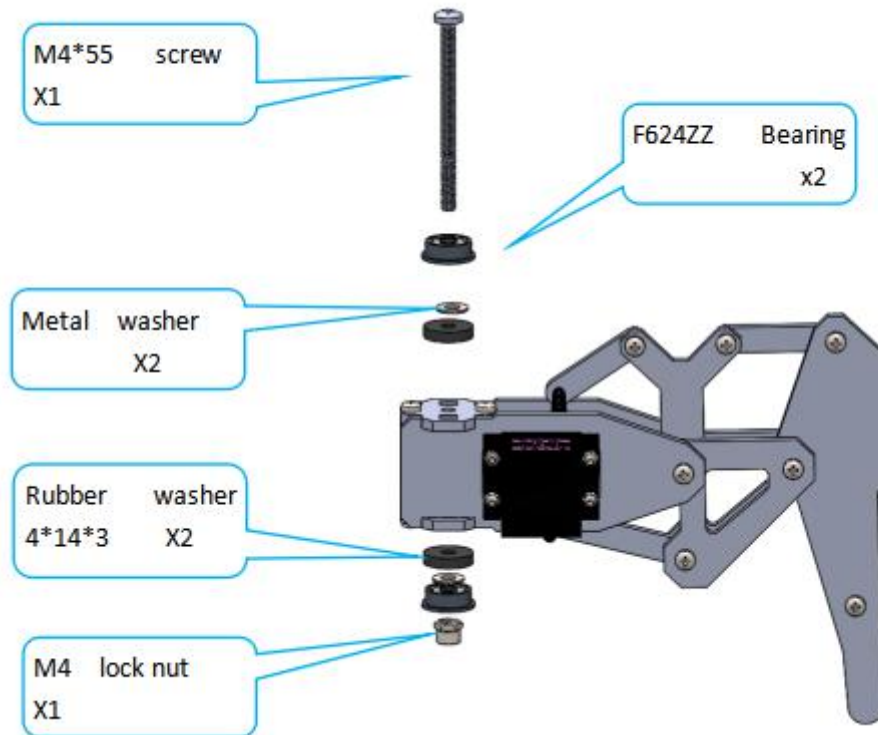
Assemble the following components



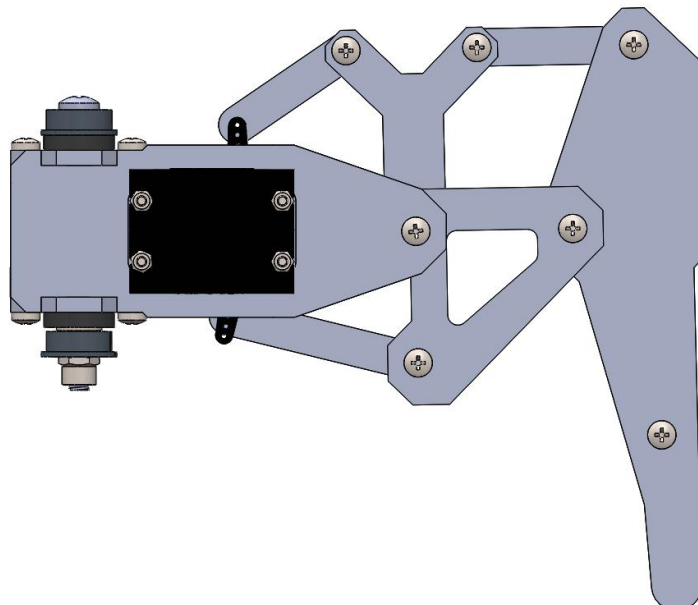
Effect diagram after assembling

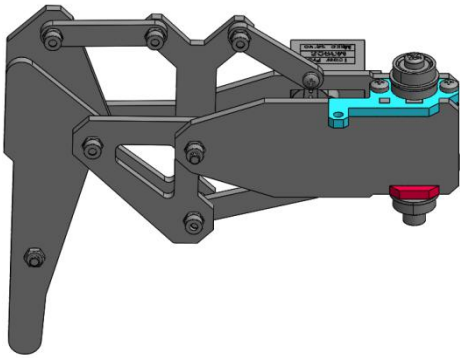
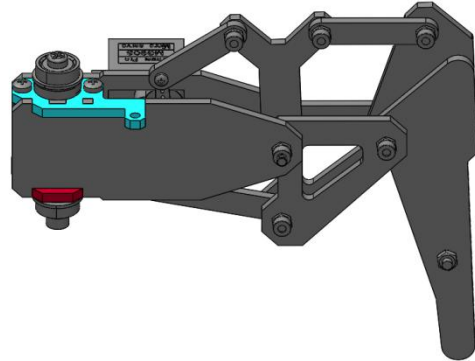
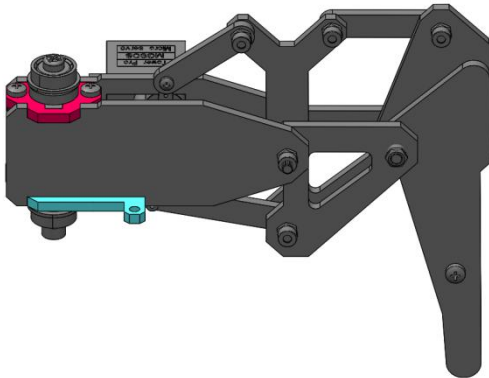
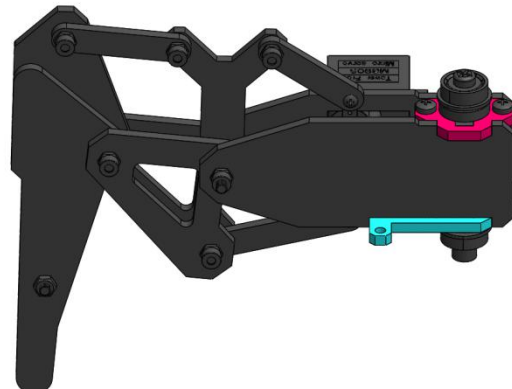


Assemble the following components



Effect diagram after assembling

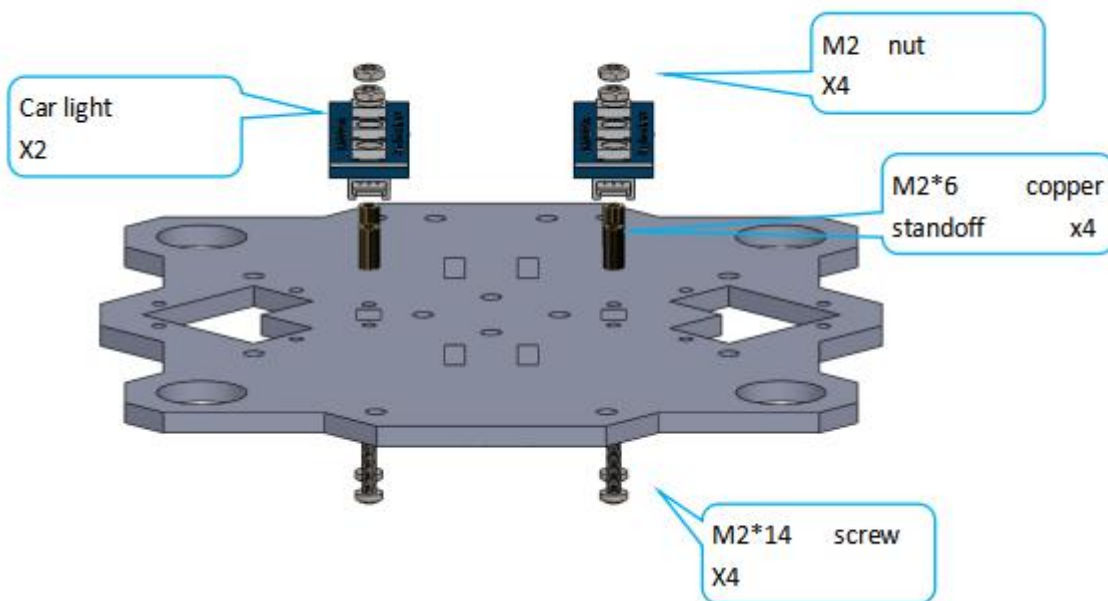


No:1**No:2****No:3****No:4**

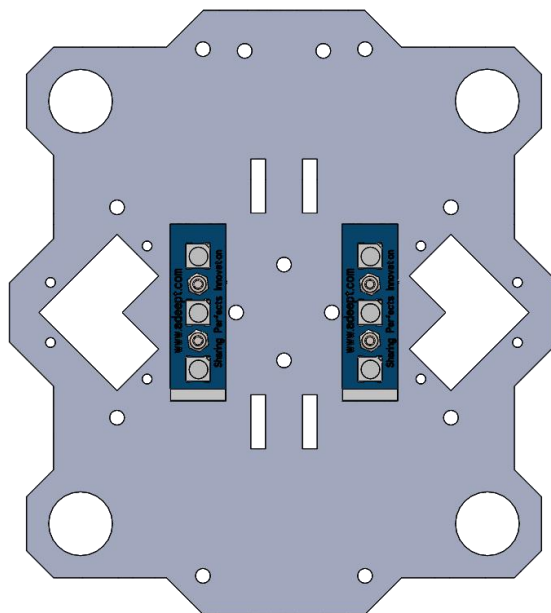
Each leg is installed in a different way. Please install each robot leg according to the above installation angle.

Assembling the Base of the Body

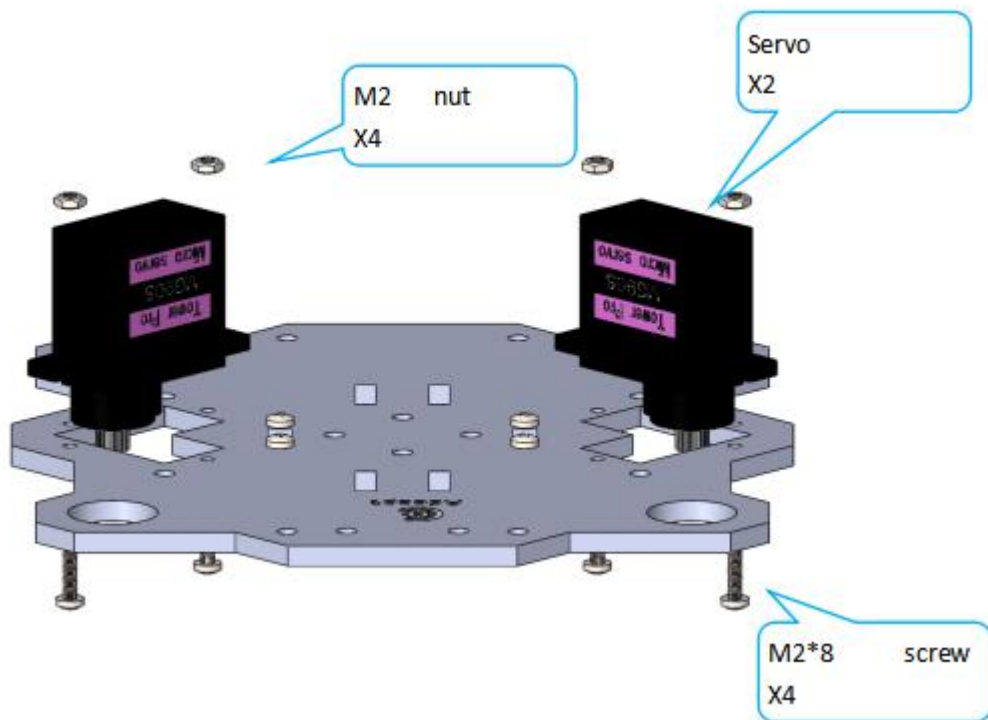
Assemble the following components



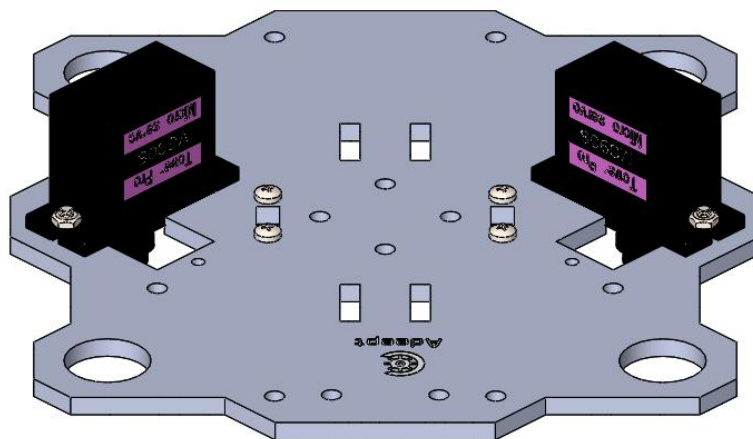
Effect diagram after assembling



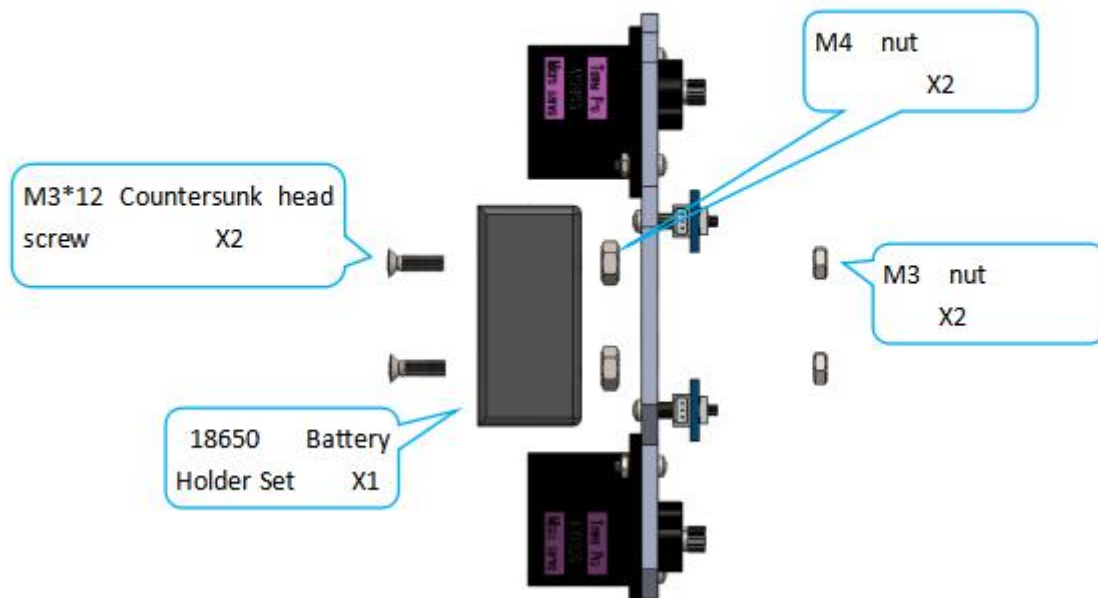
Assemble the servos.



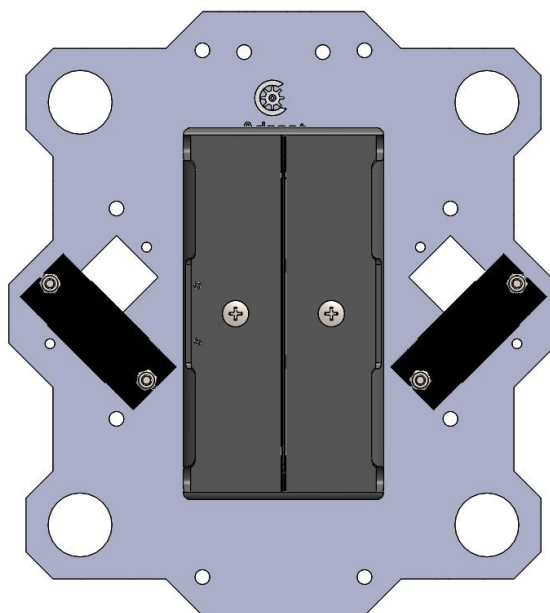
Effect diagram after assembling



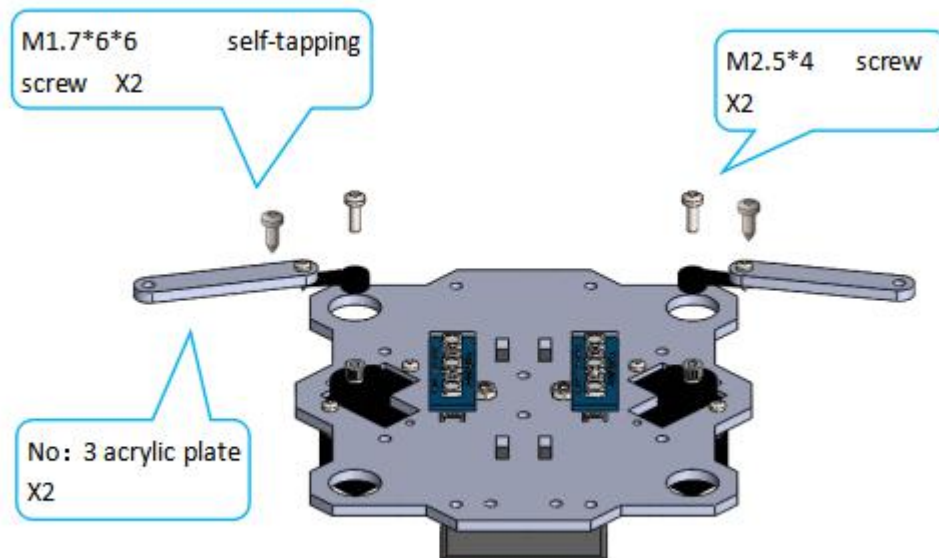
Install the battery holder.



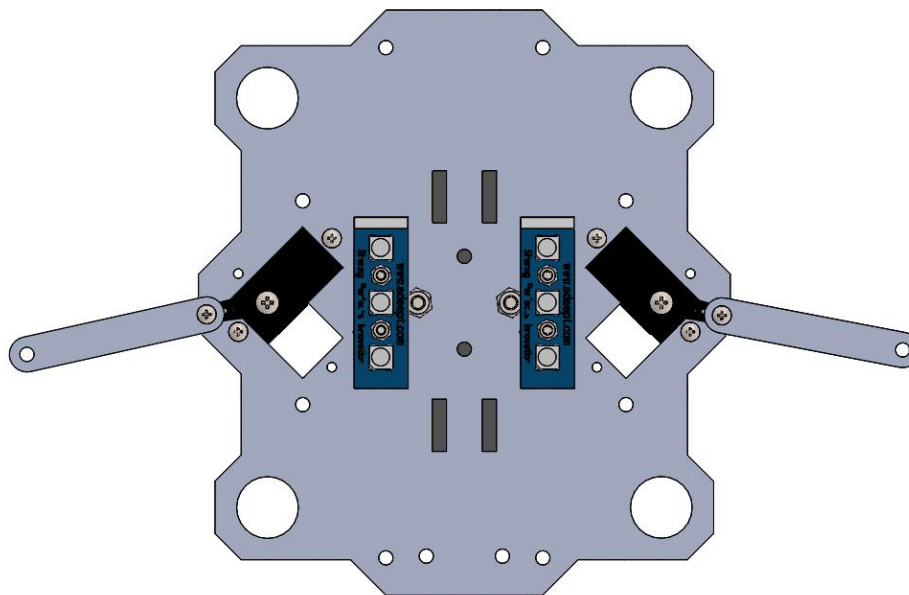
Effect diagram after assembling



Install the rocker arms.

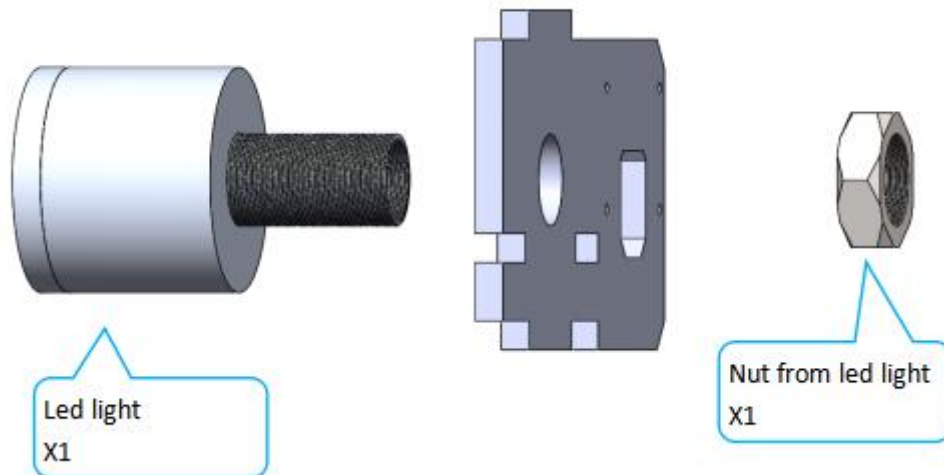


Effect diagram after assembling

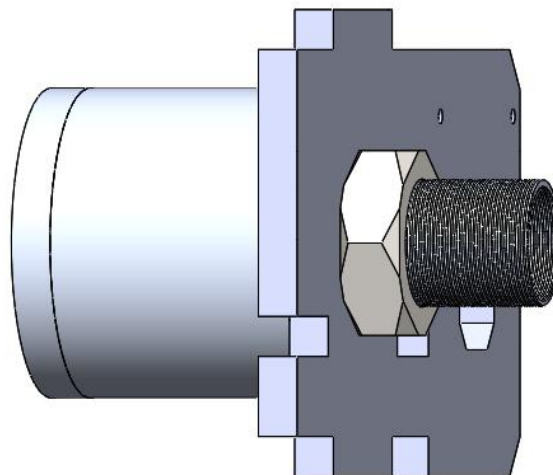


Assemble the other parts of the body.

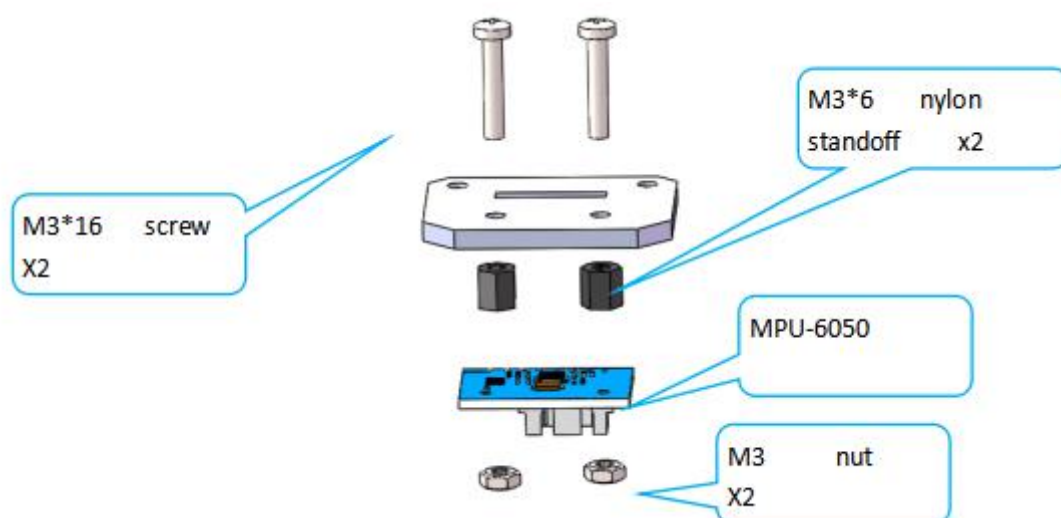
Assemble the following LED light



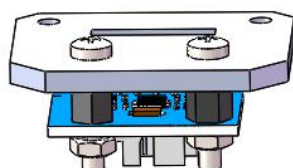
Effect diagram after assembling



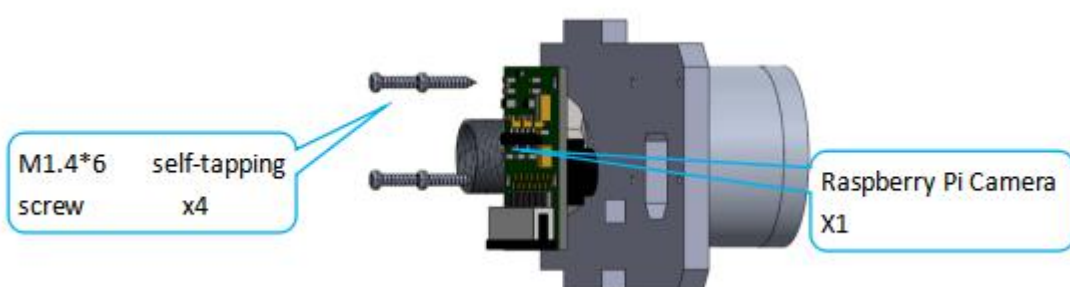
Install MPU-6050



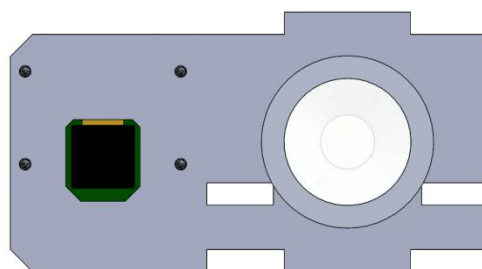
Effect diagram after assembling



Install the camera.

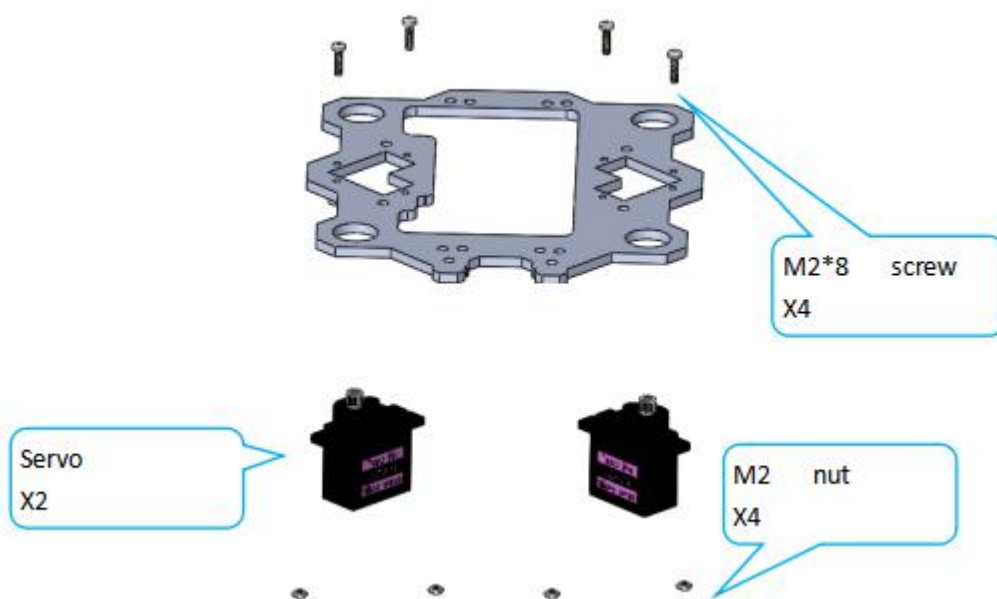


Effect diagram after assembling.

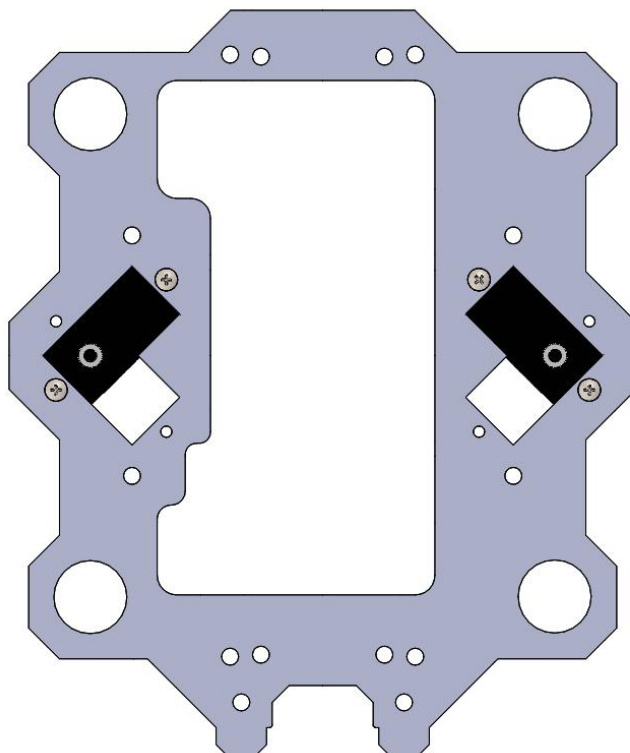


Install the servos.

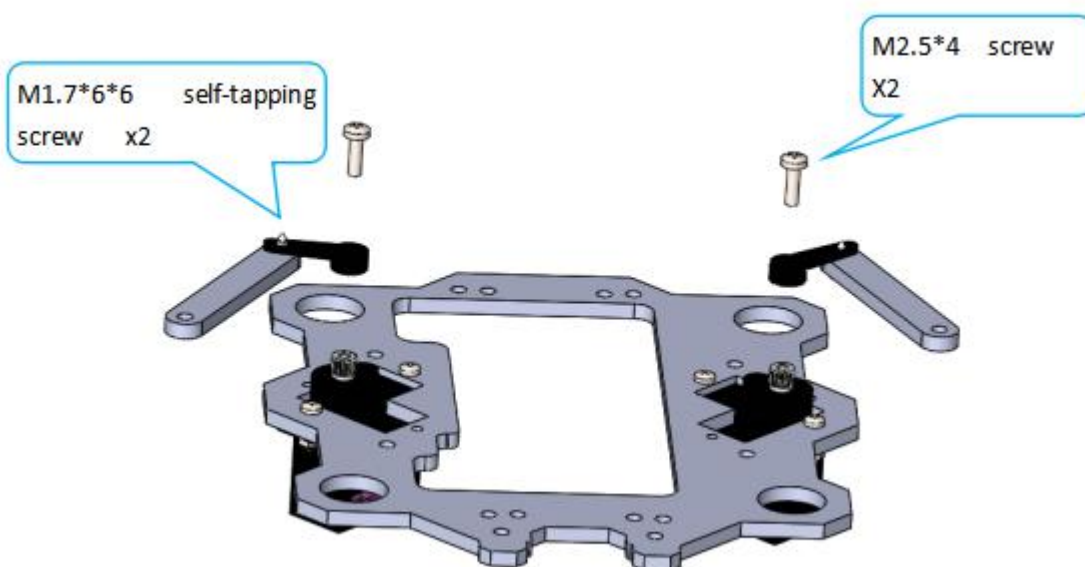
Assemble the following components



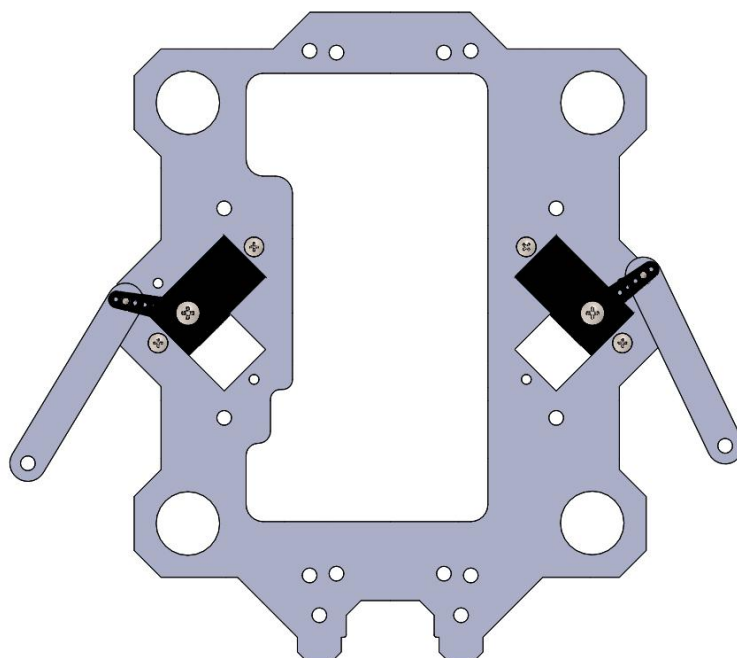
Effect diagram after assembling



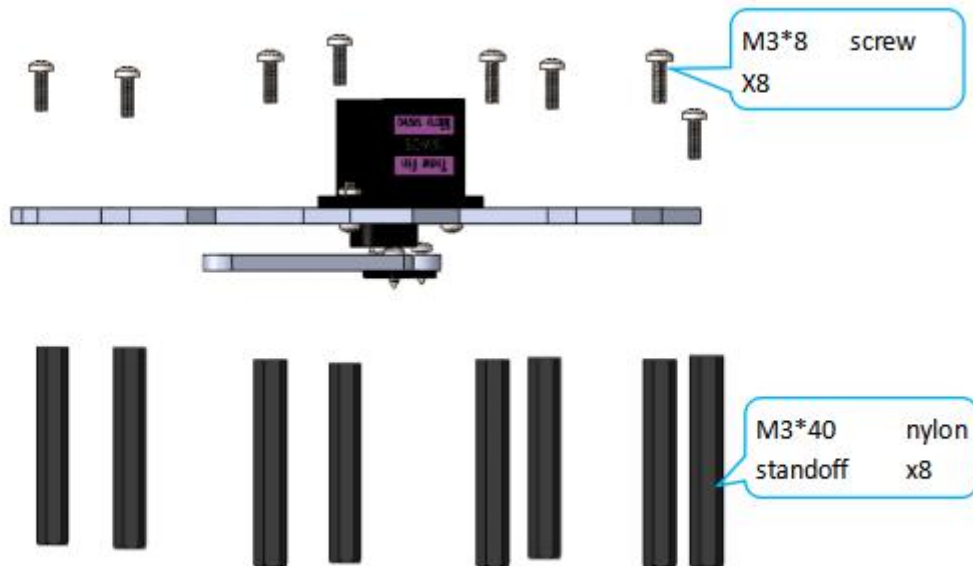
Assemble the following components



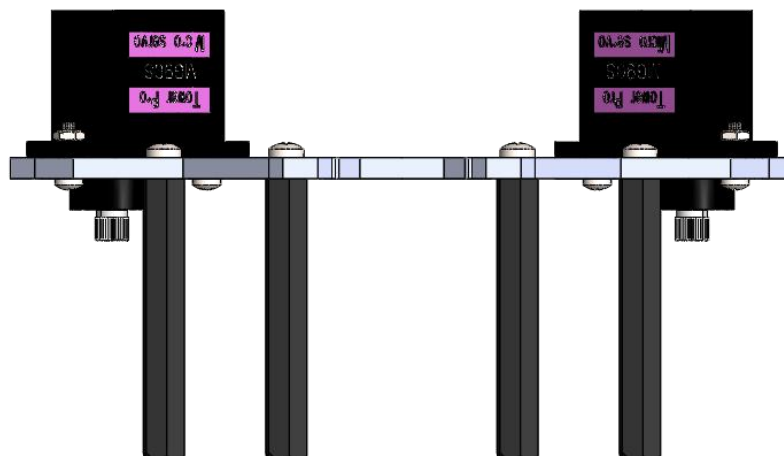
Effect diagram after assembling



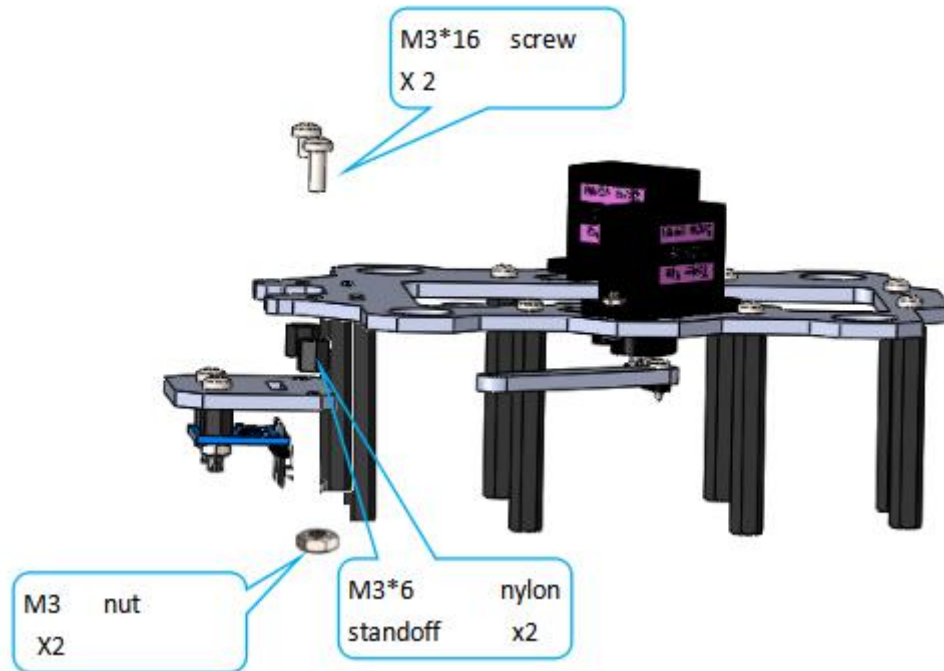
Assemble the following components



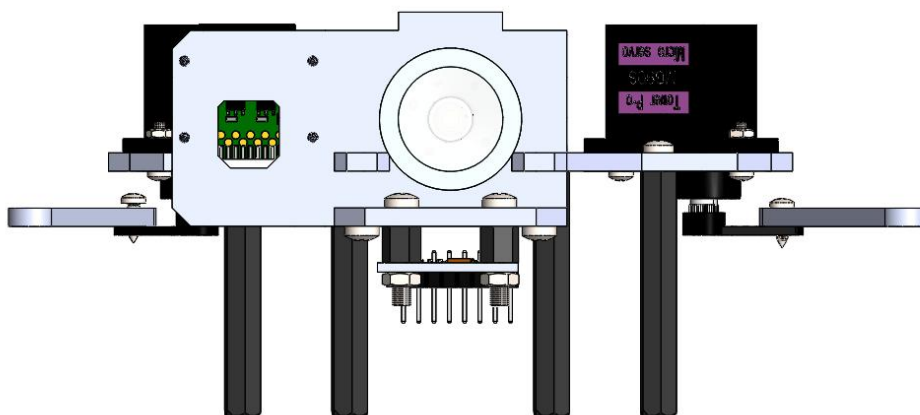
Effect diagram after assembling



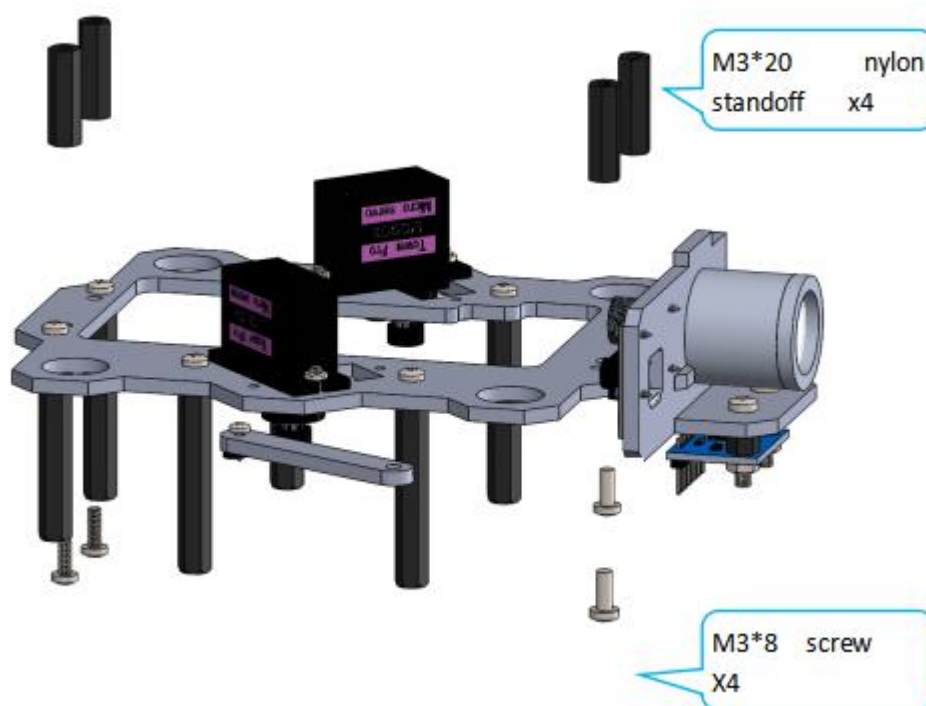
Assemble the following components



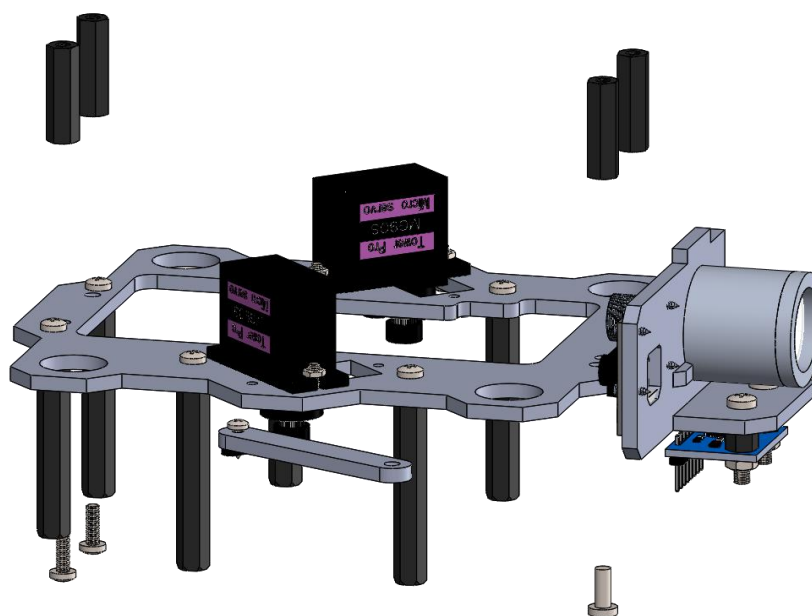
Effect diagram after assembling



Assemble the following components

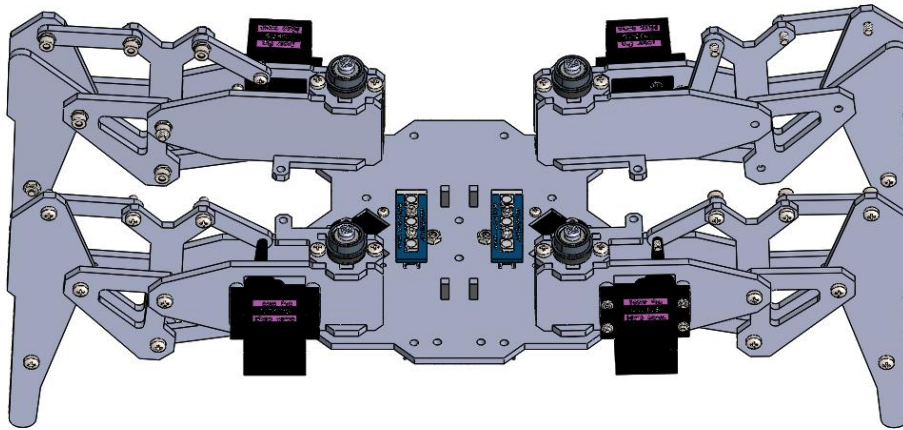


Effect diagram after assembling

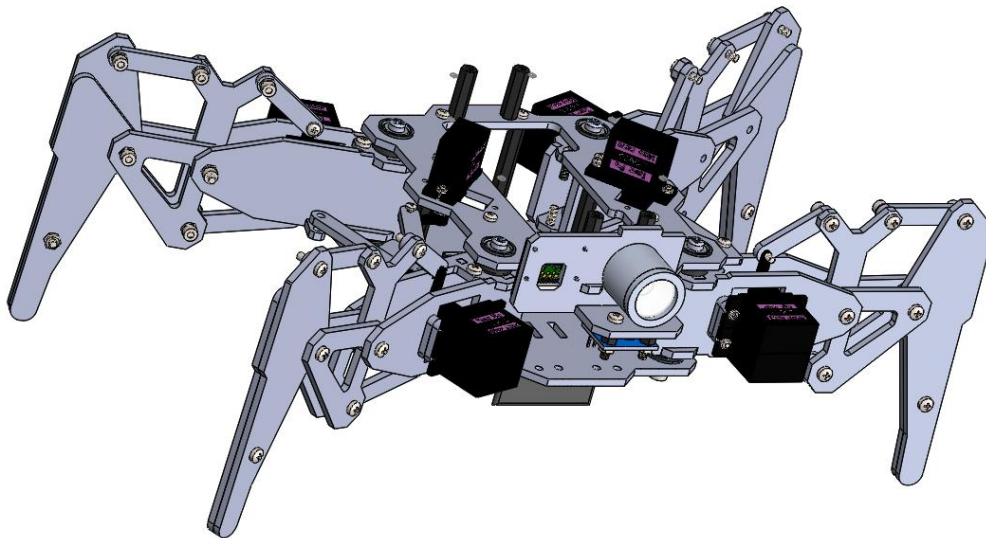


Assemble all the parts finished above.

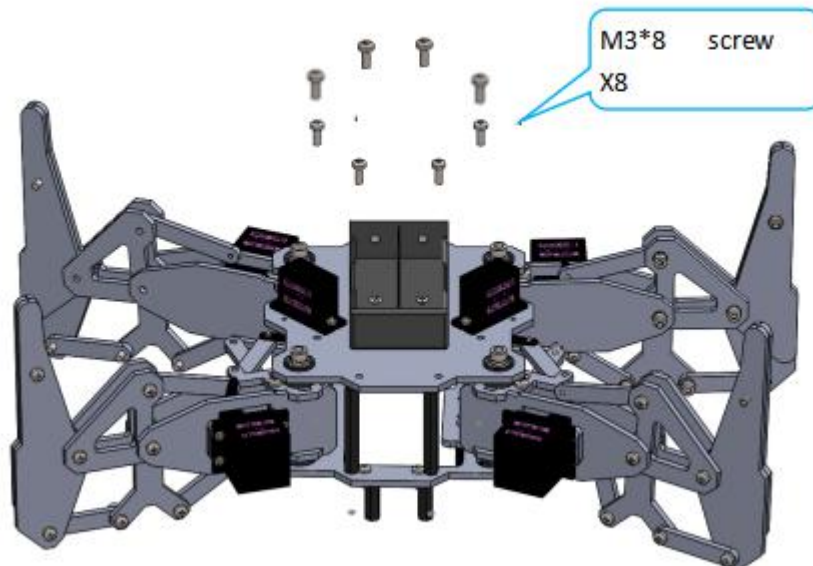
Assemble the following components



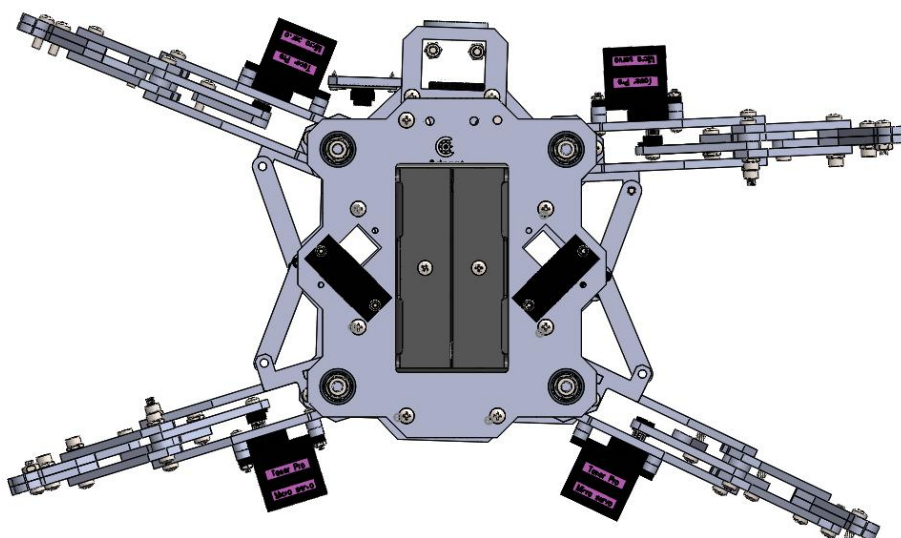
Assemble the following components

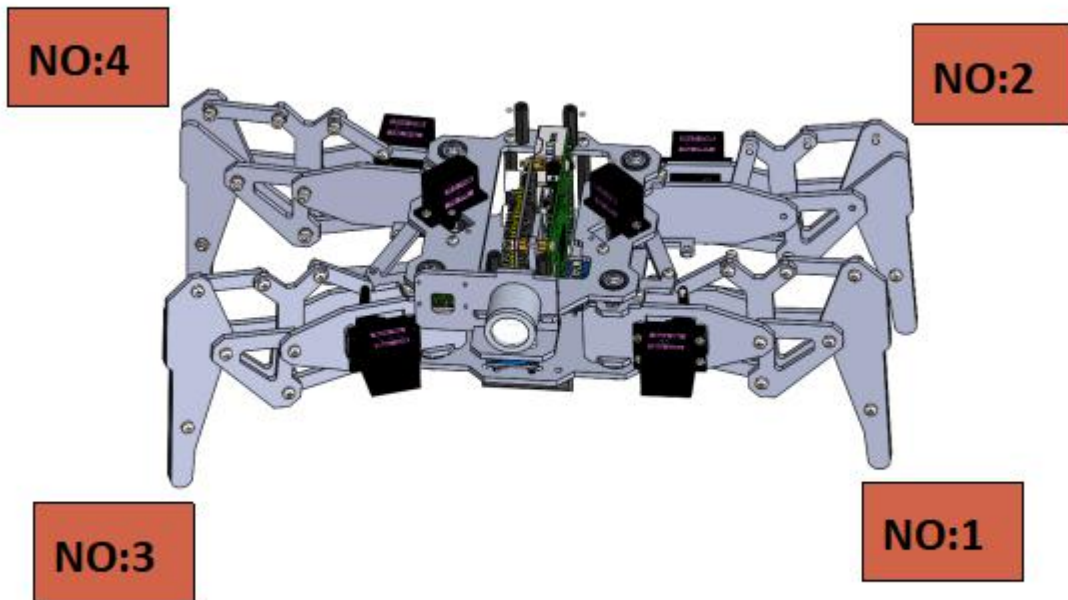
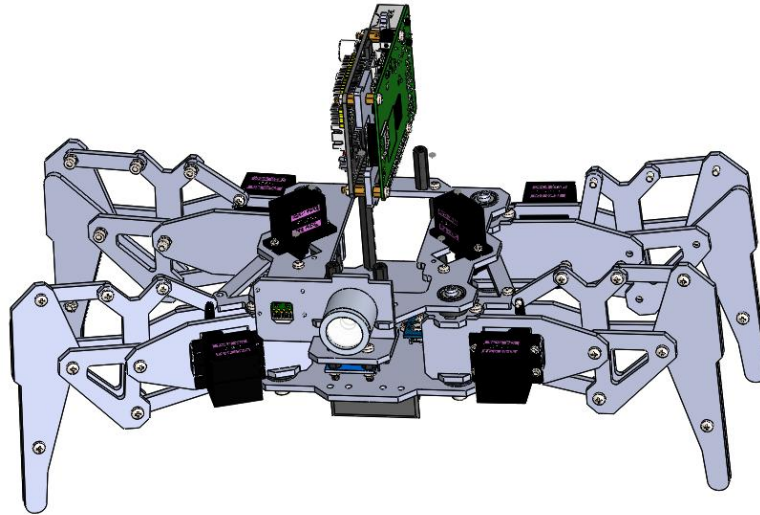


Assemble the following components



Effect diagram after assembling





The pin value of the servo that controls the rotation of joint on the body is the smallest for this leg; that of the lower one of the two servos that controls the stretching of the leg is the moderate; and value of the servo between the two is the largest for the leg.

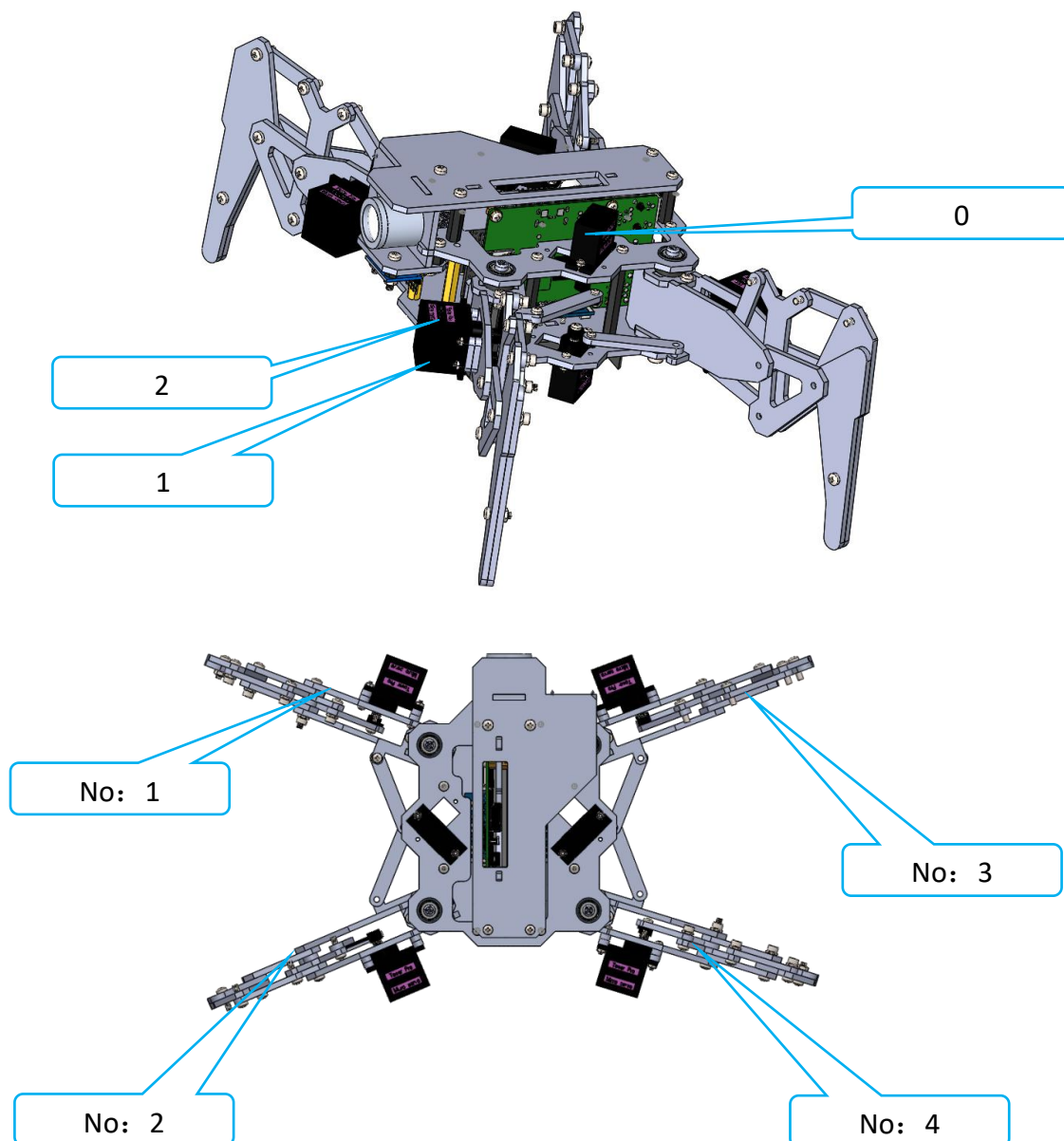
No1: 0, 1, 2

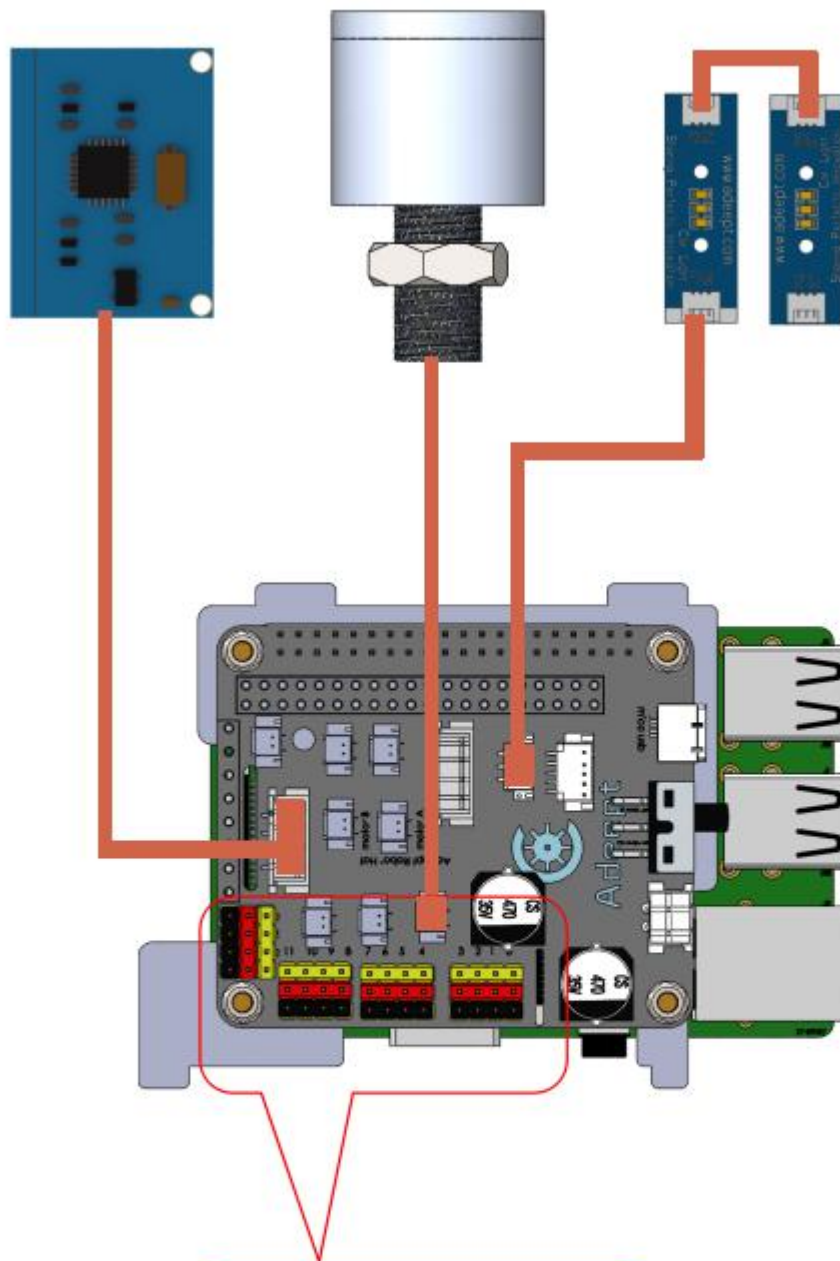
No2: 3, 4, 5

No3: 6, 7, 8

No4: 9, 10, 11

For example, the pin of the first leg (No: 1):

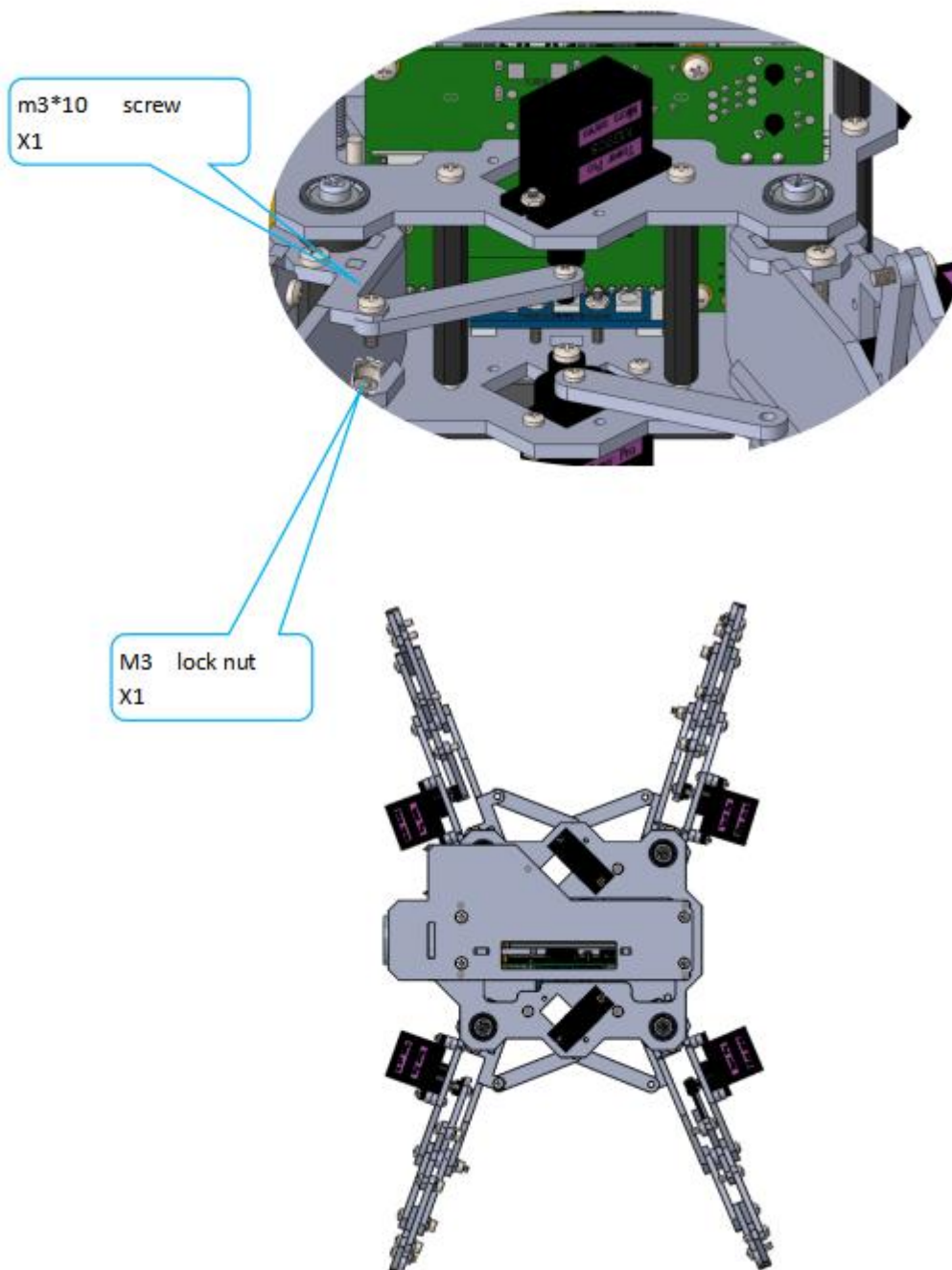


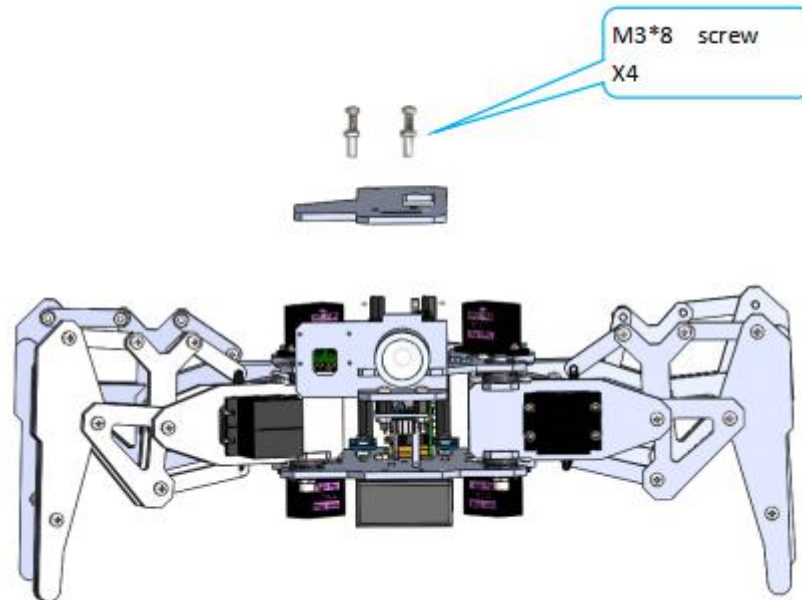


According to the number, install the servos into the PWM ports.

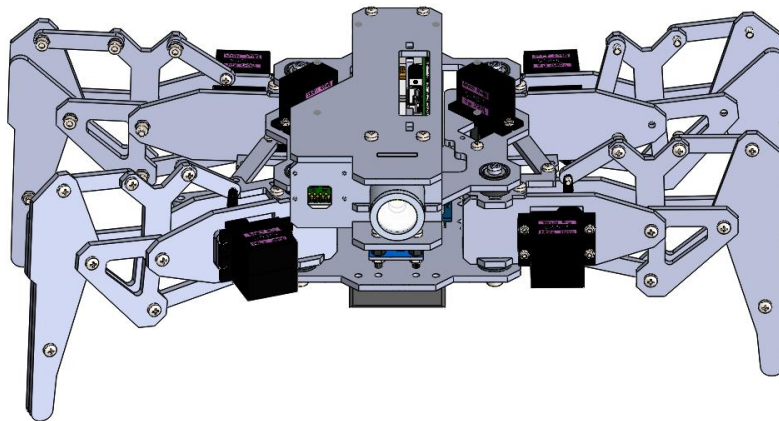
Note that do not reverse the polarity of the server wiring. Please refer to the above diagram for wiring.

Connect the rocker arm to the leg.





Effect diagram after assembling



The installation is completed for the DarkPaw robot now.

Note: It's recommended to use an 18650 battery that supports a maximum output current of at least 4A, or one with "high discharge rate".