5. Assembly Guide

Step 1:Mount the Bottom PCB

- Prepare the parts as follows:

Gear motor *4

Fixed part *4

M3 nickel plated nut *10

M3*6mm round-head screw *14

4WD bottom PCB *1

Tracking sensor *1

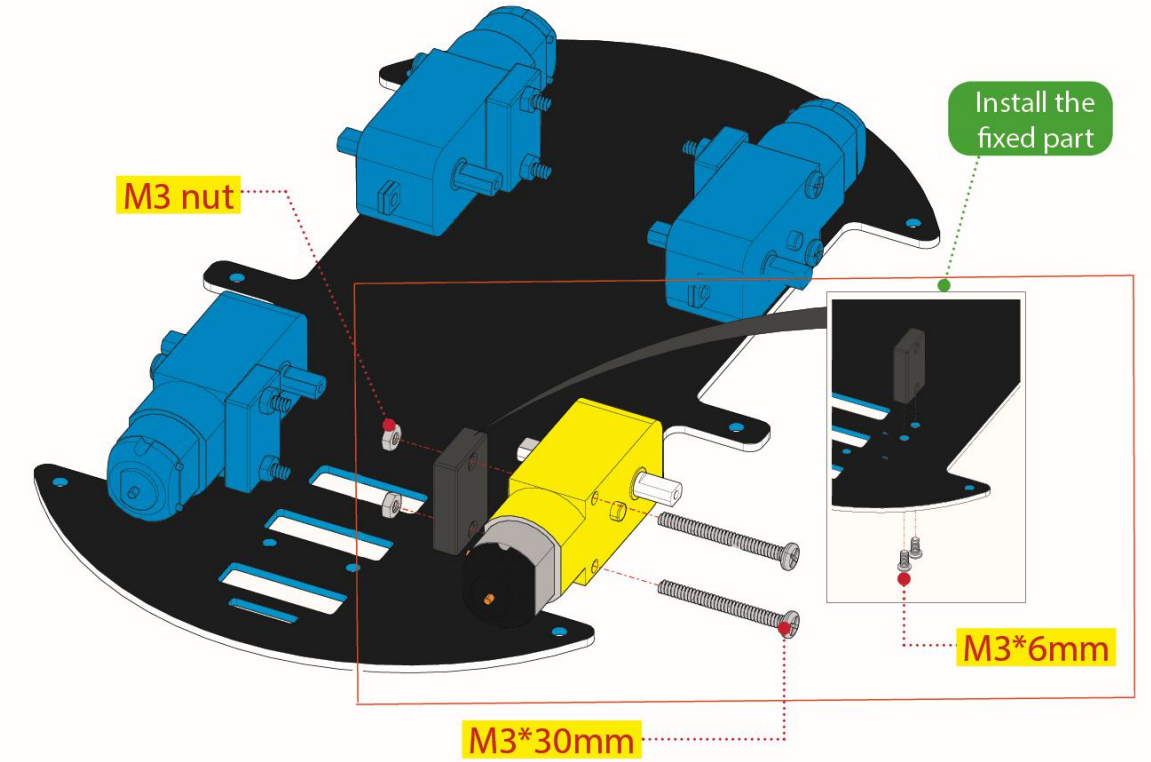
Wheel *4

Dual 5p wire *1

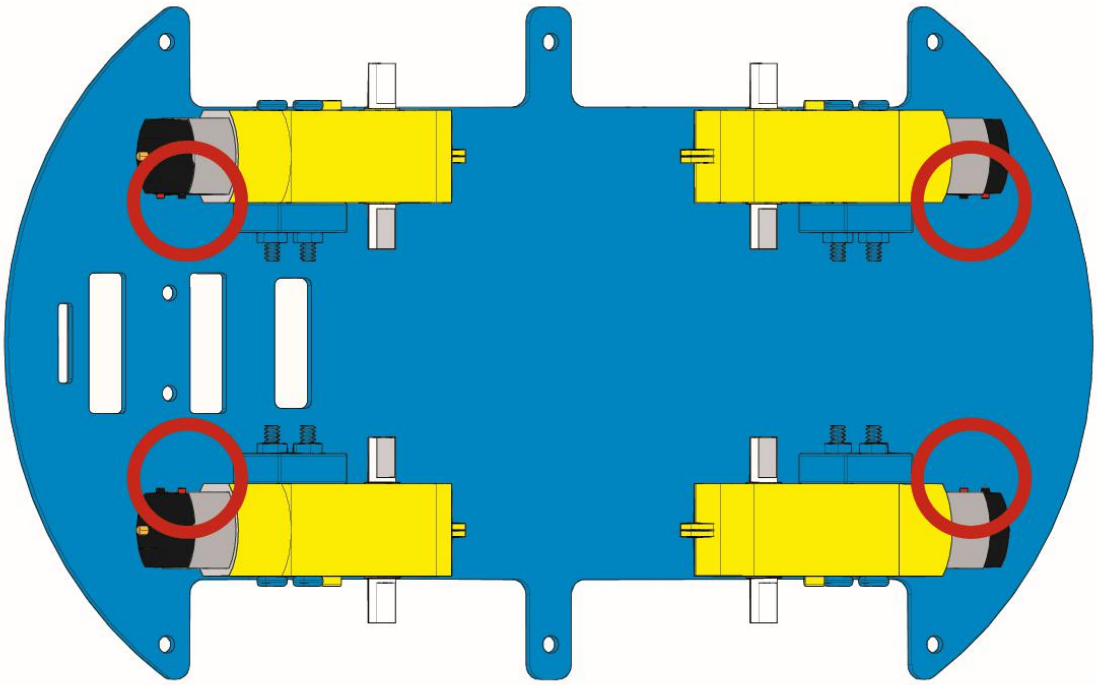
M3*40mm copper pillar*6

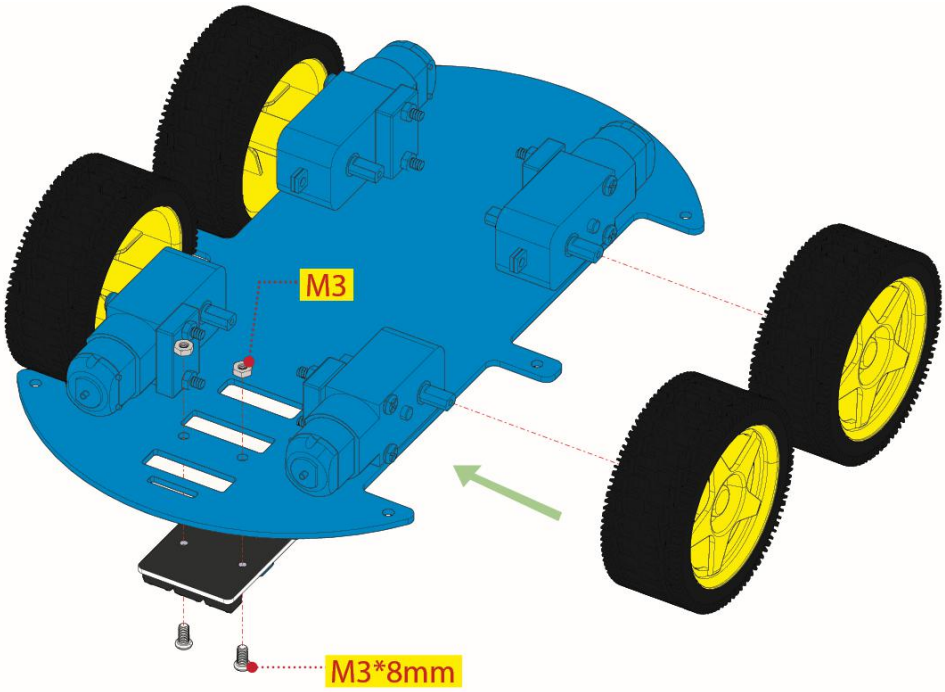
M3*30m round-head screw *8

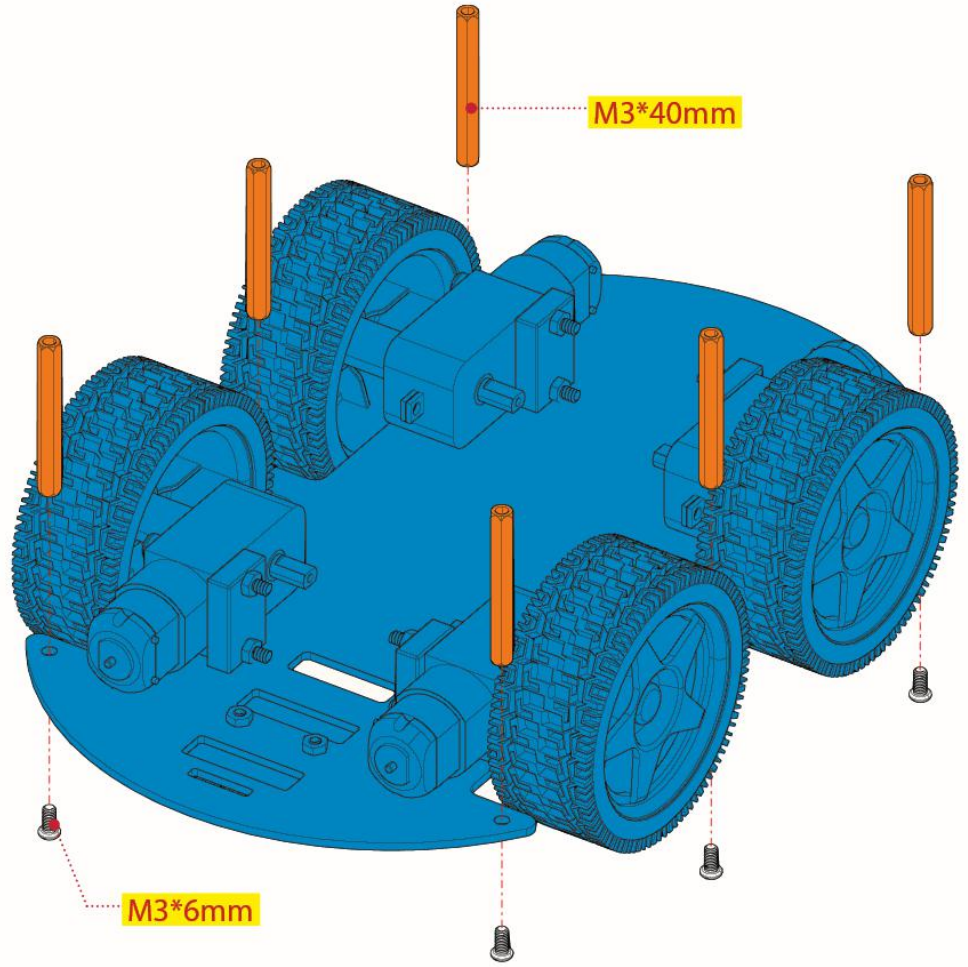
M3*8mm round-head screw *2

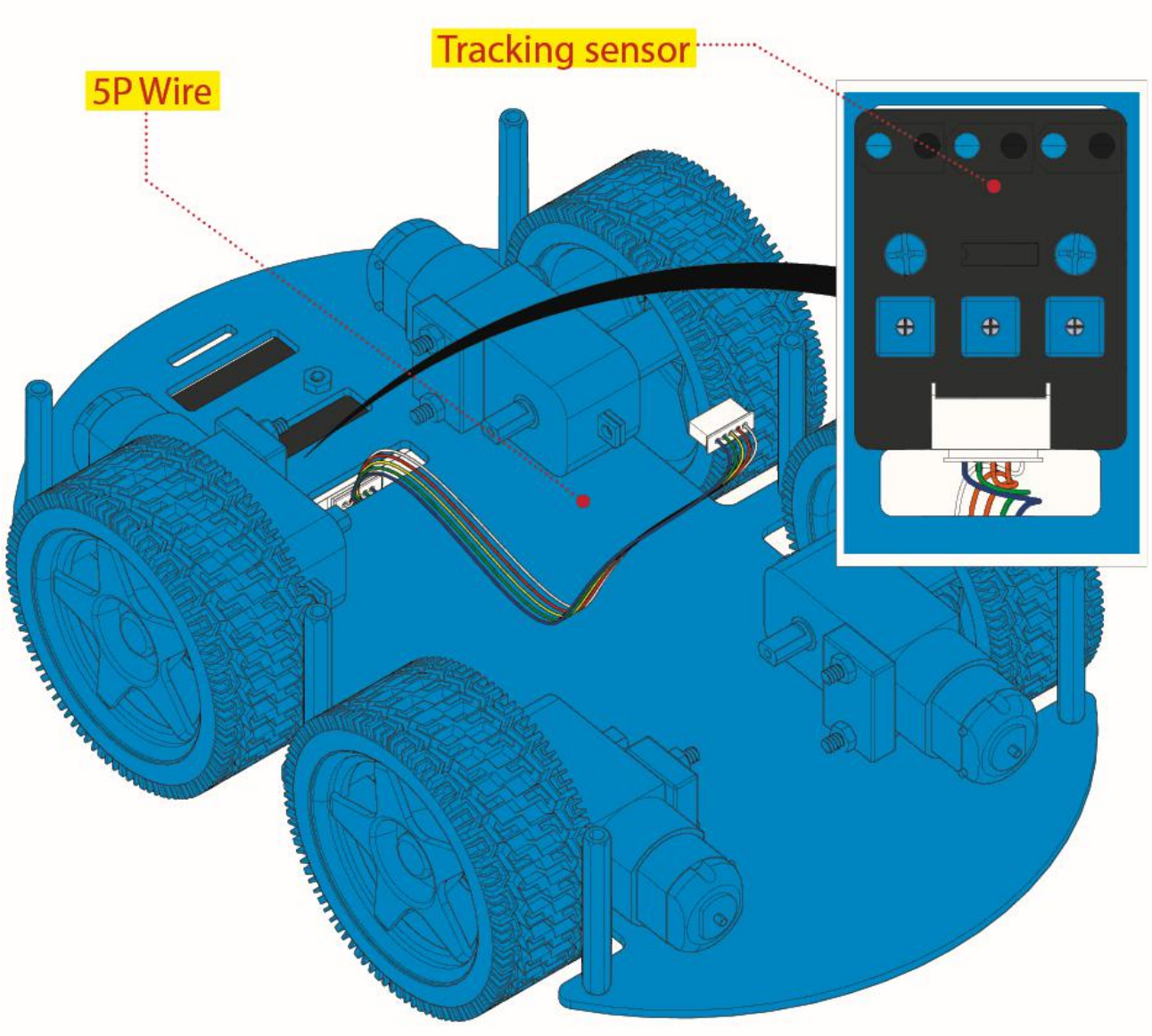


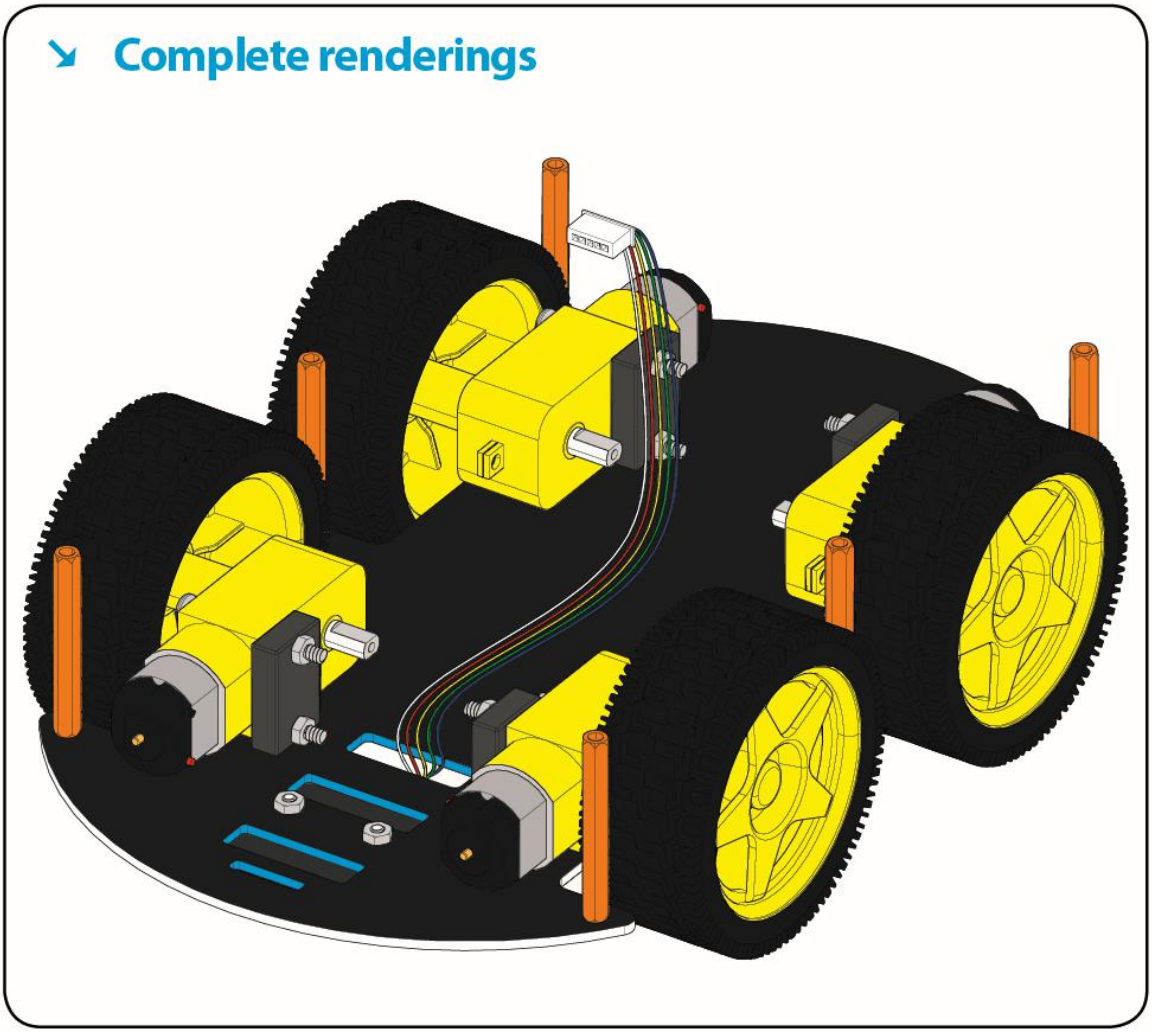
Note: The ways to install motors are same, pay attention to the direction please. Their position holes are downward and the red and black lines are inward




M3
M3*8mm


M3*40mm
M3*6mm


Tracking sensor
5P Wire



Step 2: Install Dot Matrix

- Prepare the parts as follows:

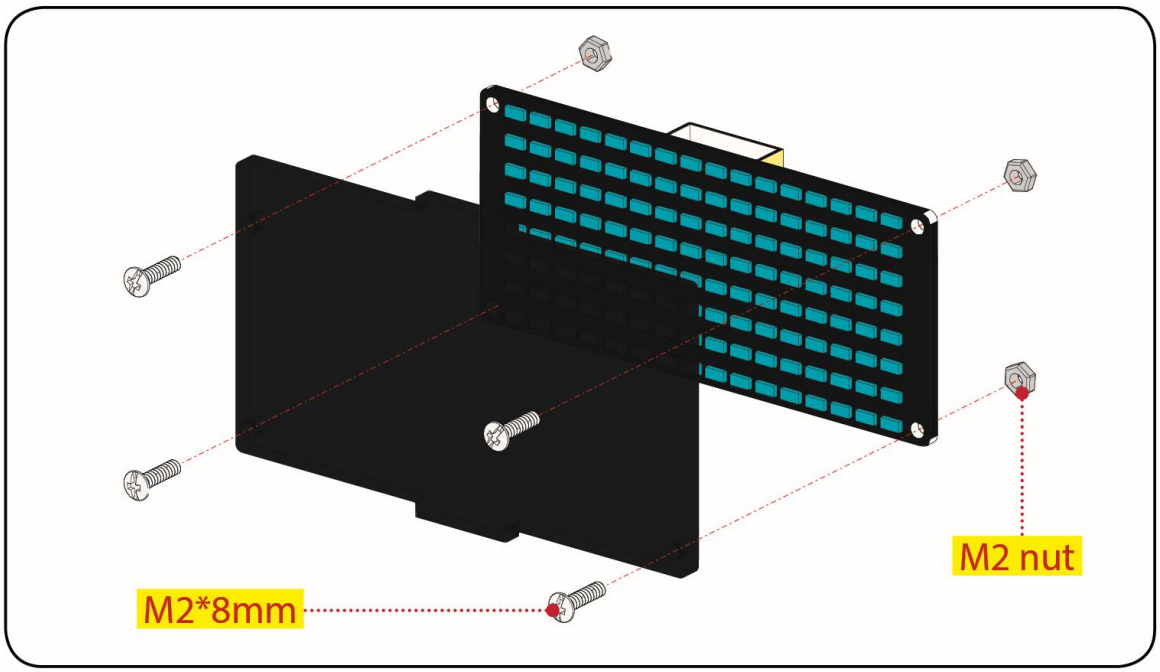
  8*16 LED panel *1

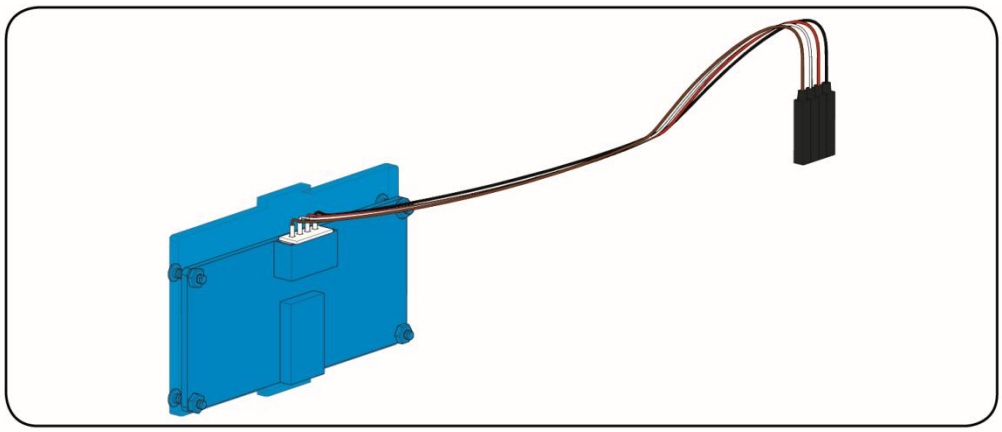
  4Wd baffle

  4P wire *1

  M2x8mm round-head screw *4

  M2 nut *4





Step 3: Servo plastic platform

- Prepare the parts as follows:

  Servo *1

  M2*4 screw *1

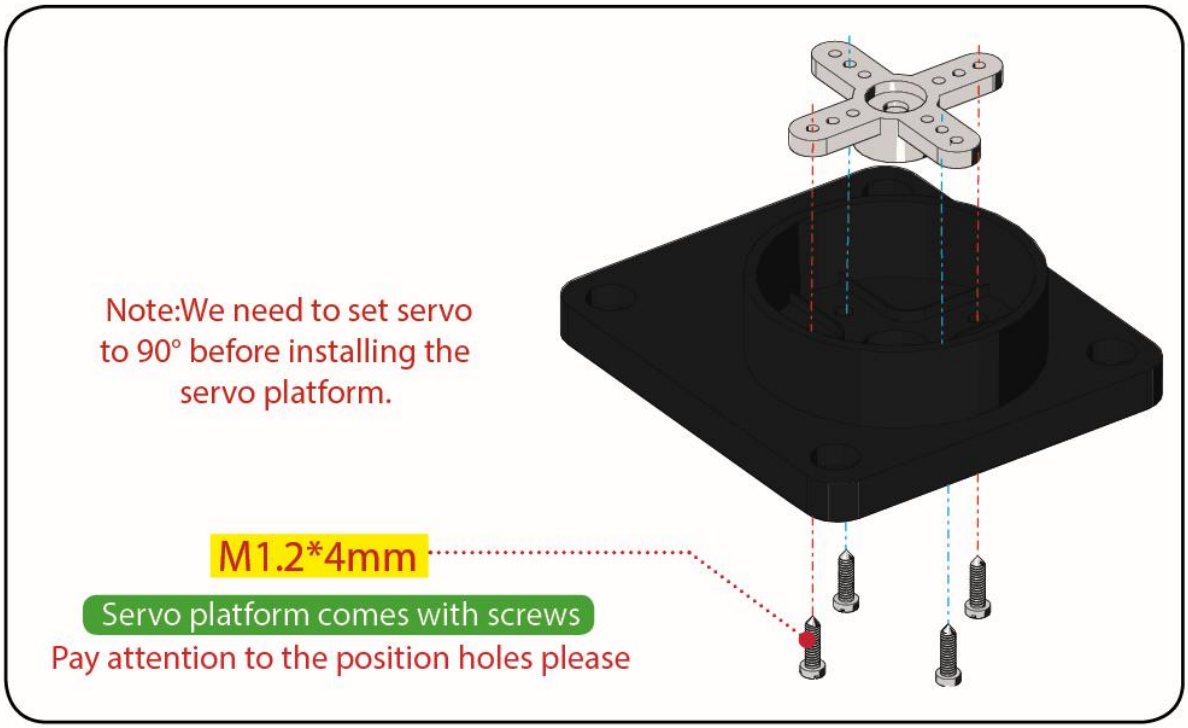
  Black cable tie*2

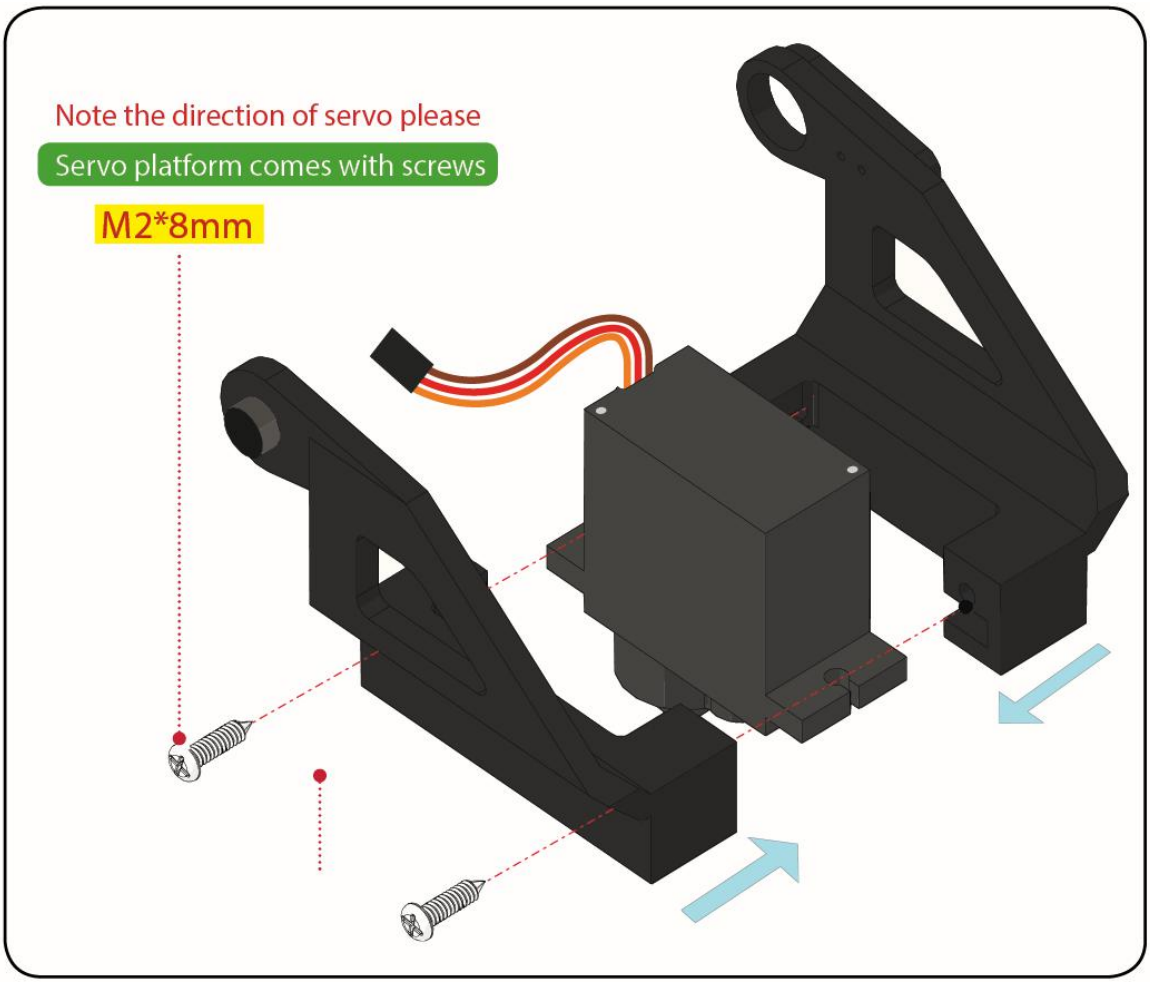
  Ultrasonic sensor*1

  Black servo platform *1

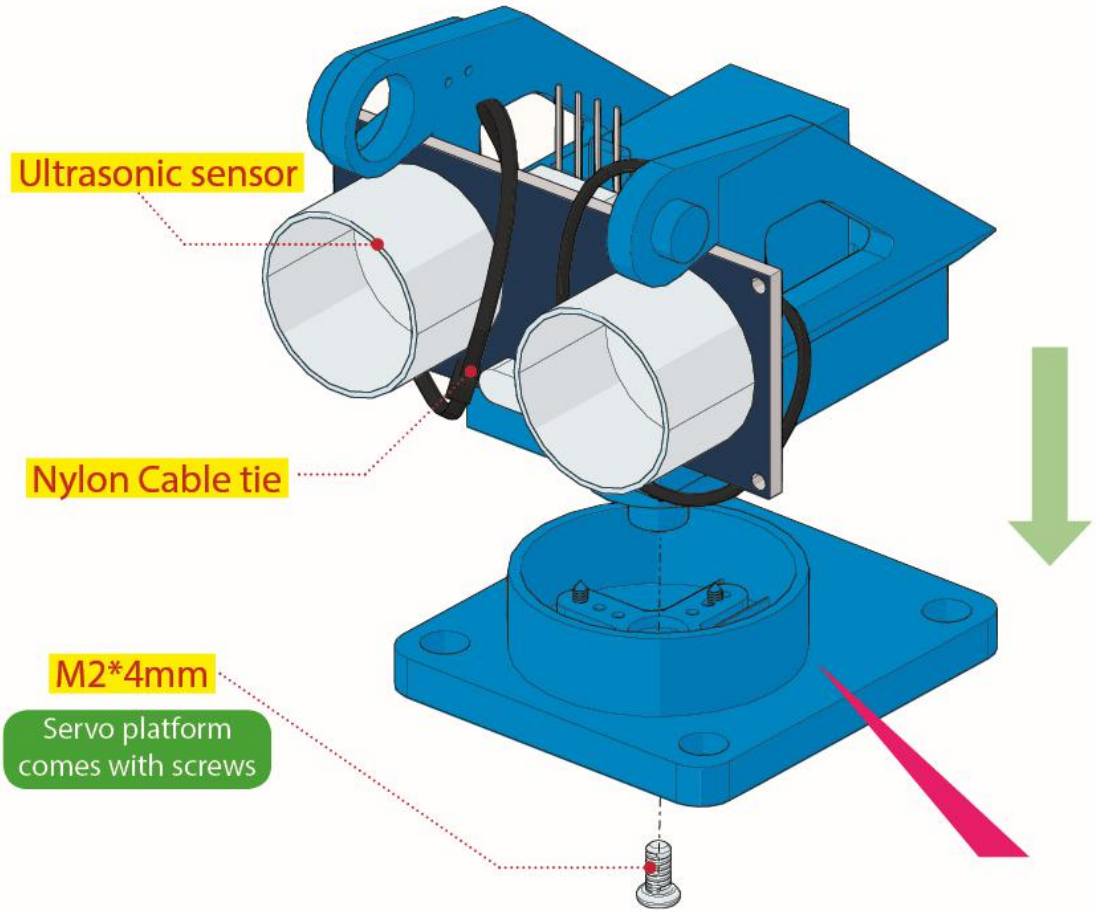
M1.2*4 tapping screw *4

M2*8 tapping screw *2

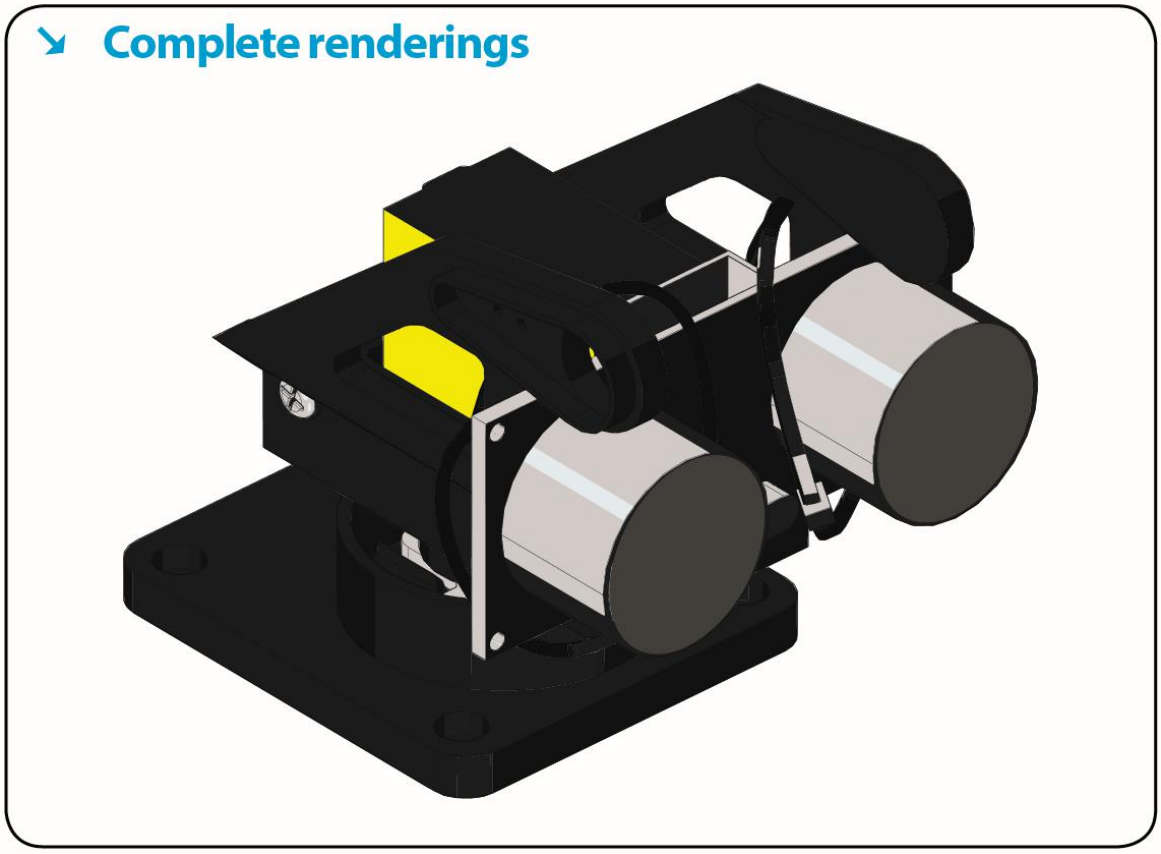



Note the direction of servo please
Servo platform comes with screws
M2*8mm

↘ Complete renderings



Note: The direction of base should be complied with the diagram,
For convenient debugging, confirm that the ultrasonic module is in front of tank robot



Step 4: Install the Top PCB

- Prepare the parts as follows:

  Top PCB *1

  M3 nut *3

  Motor drive board *1

  Control board *1

  IR receiver module *1

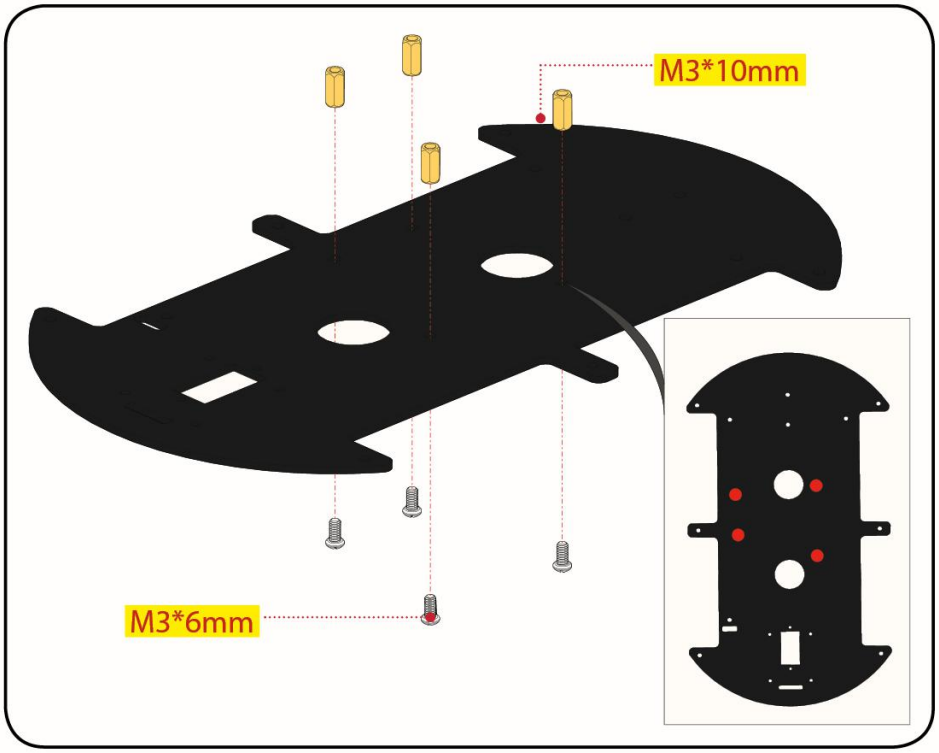
  M3*10mm copper pillar *8

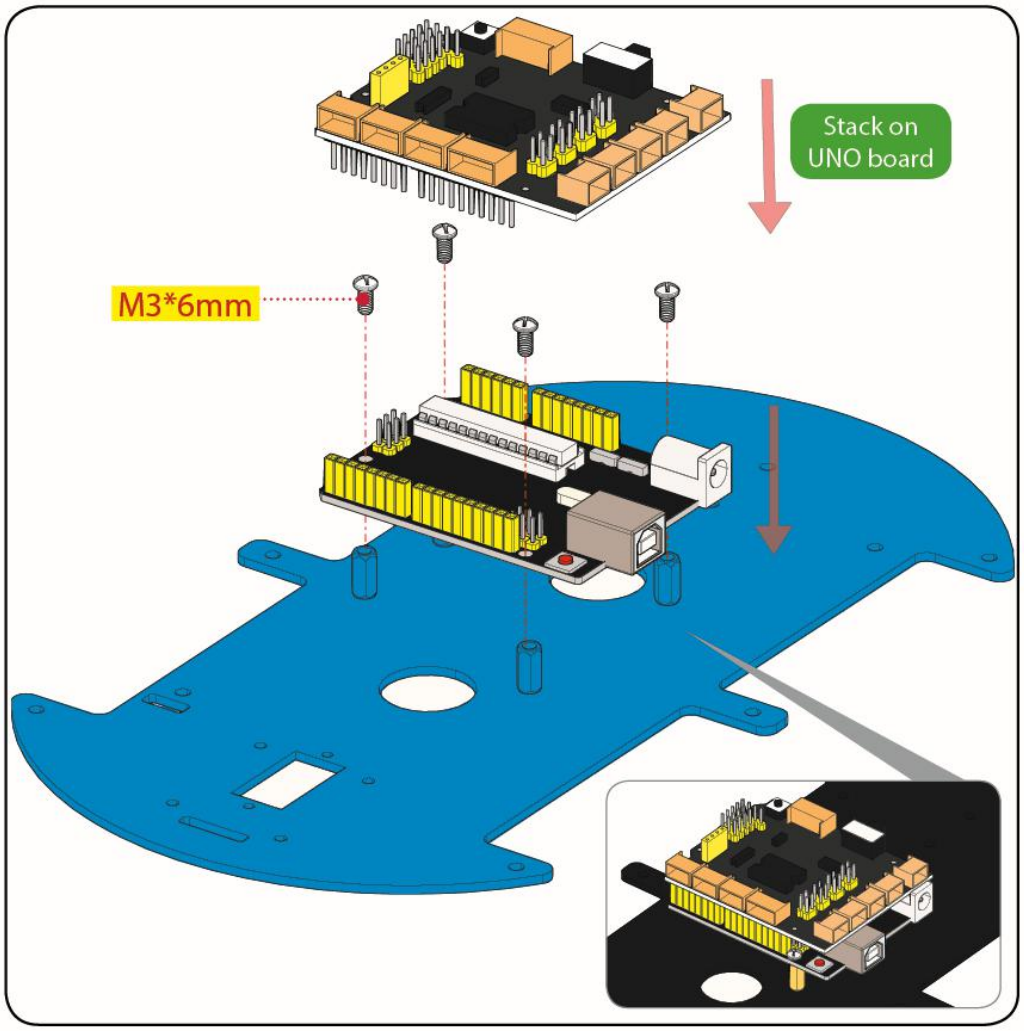
  M3*8mm round-head screw *1

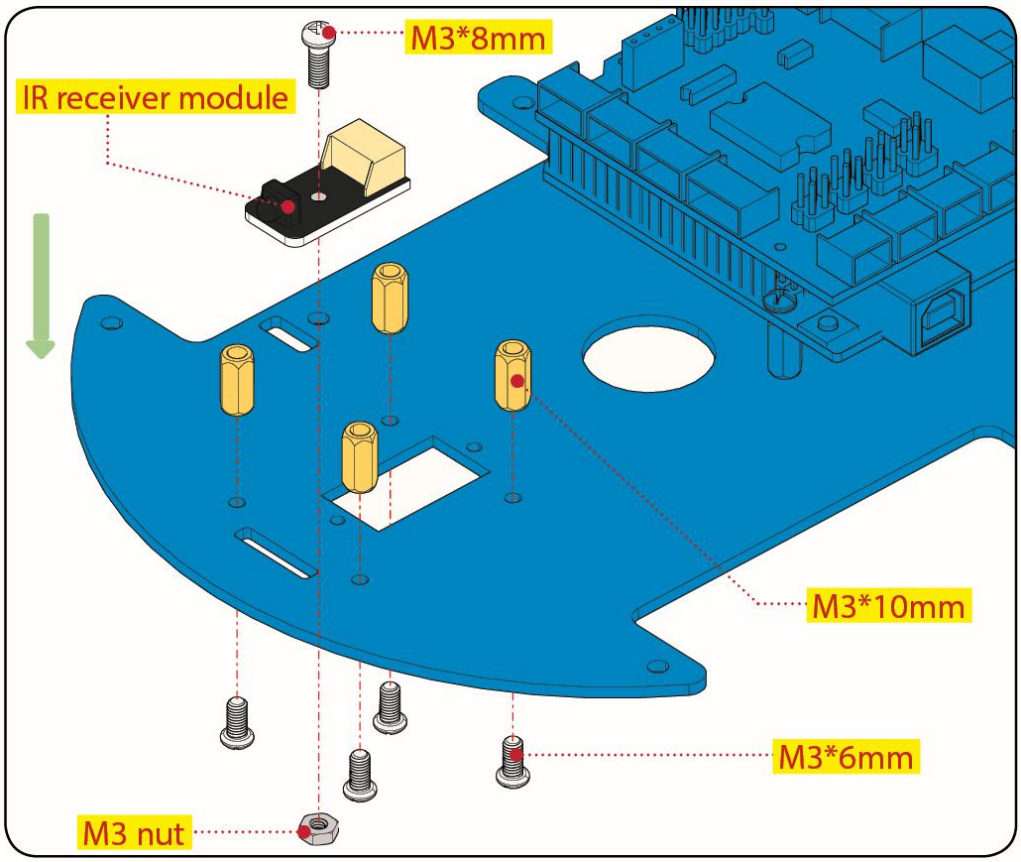
  M3*6mm round-head screw *16

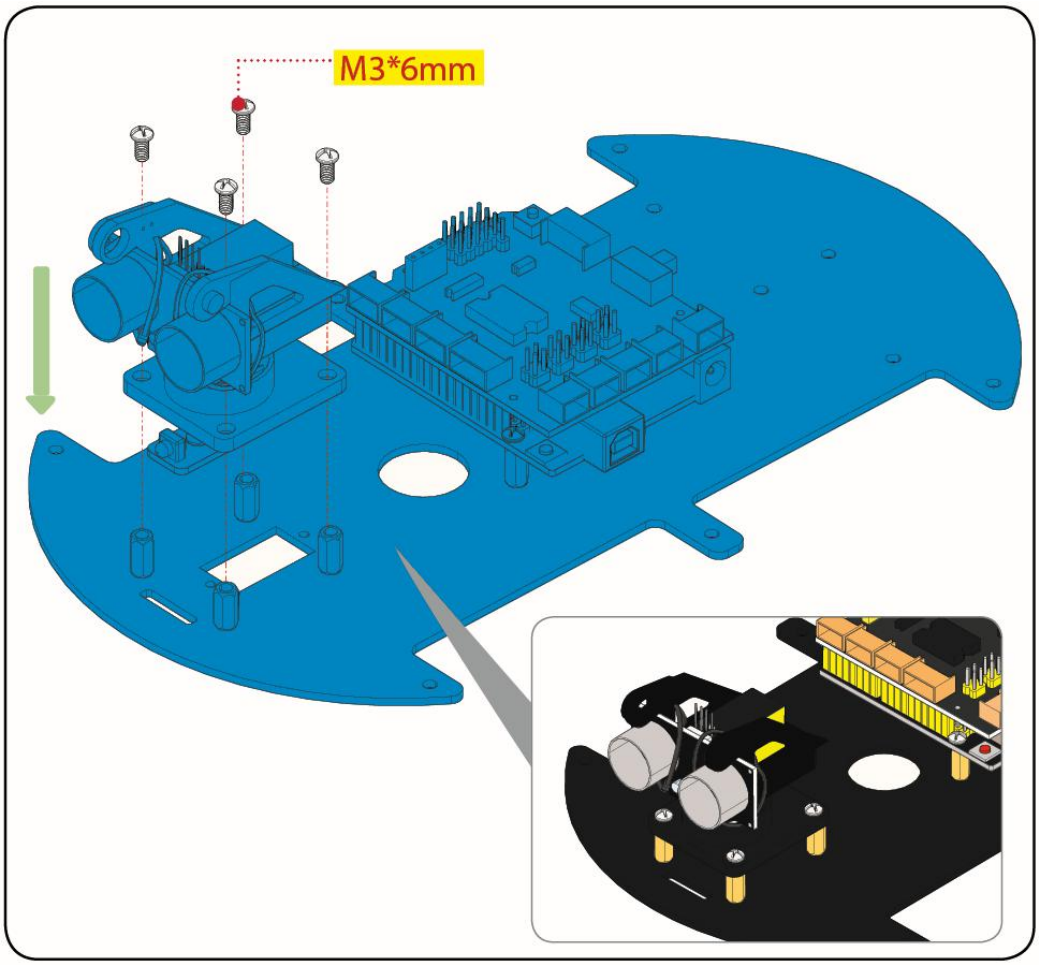
M3*10mm flat screw *2

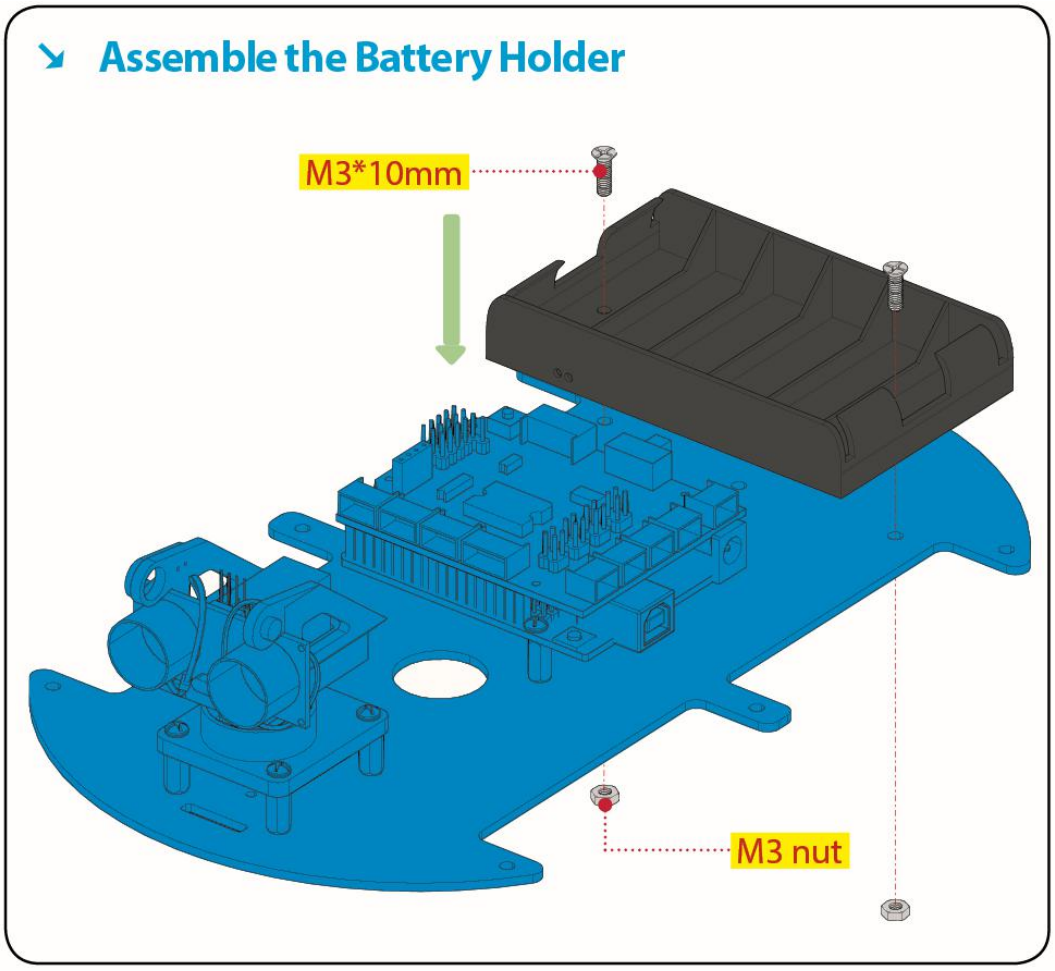
6-Cell AA battery holder *1




Stack on
UNO board
M3*6mm


M3*8mm
IR receiver module
M3*10mm
M3*6mm
M3 nut


M3*6mm



Step 5: Install Top PCB

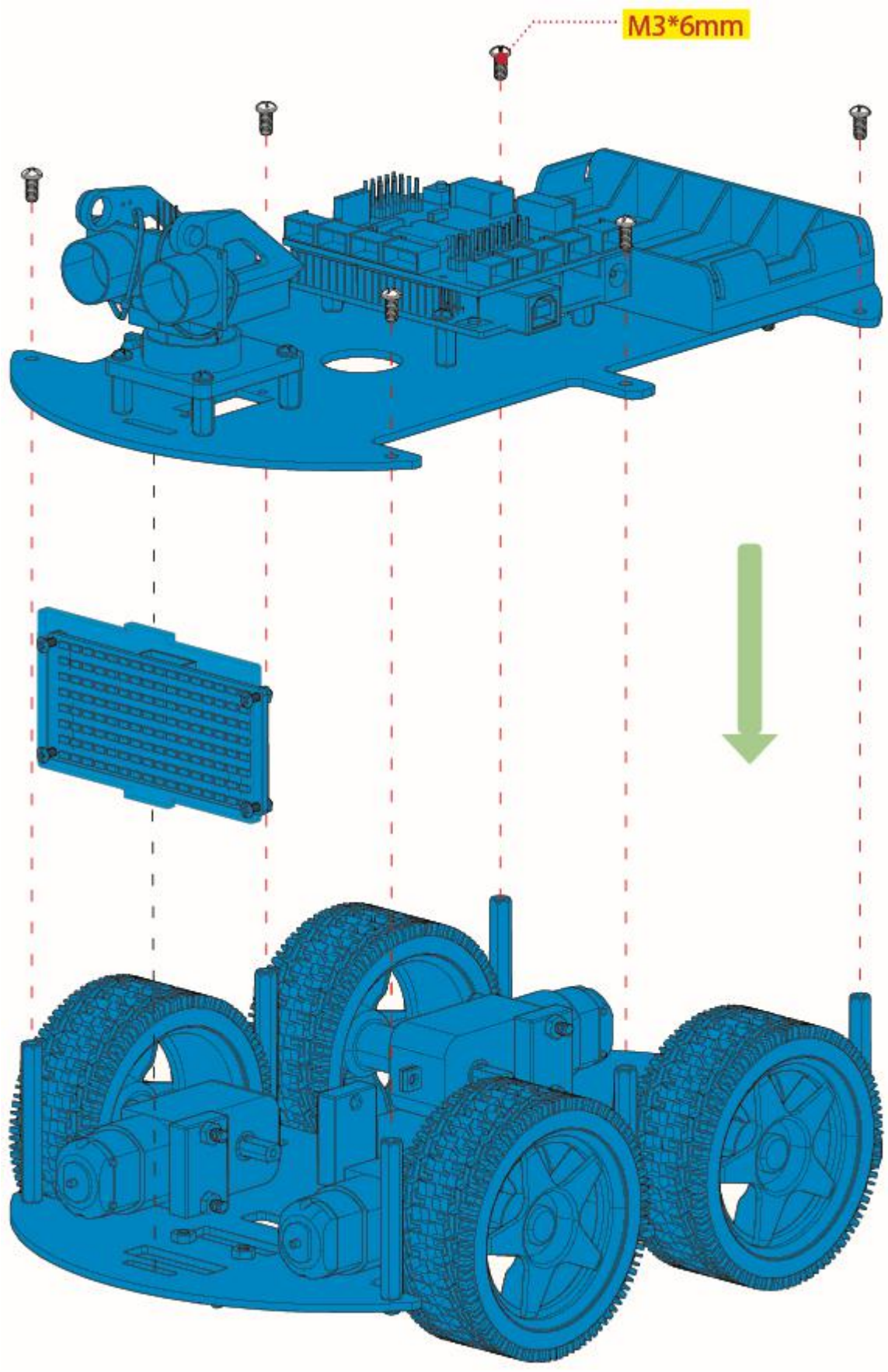
- Prepare the parts as follows:

  Bluetooth module *1

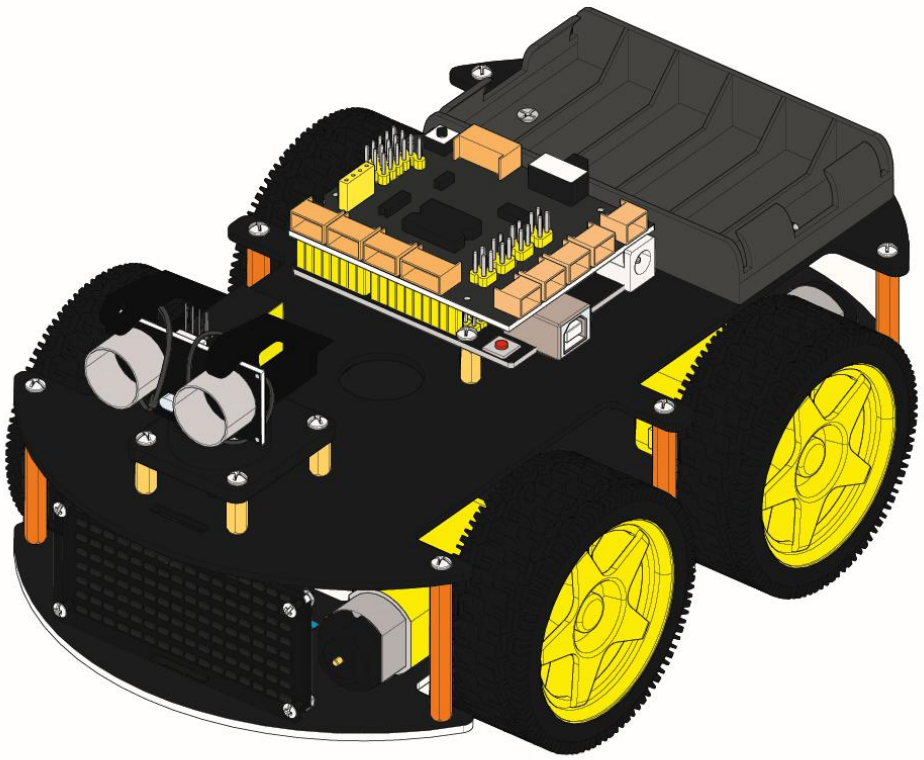
  M3*6MM round-head screw *6

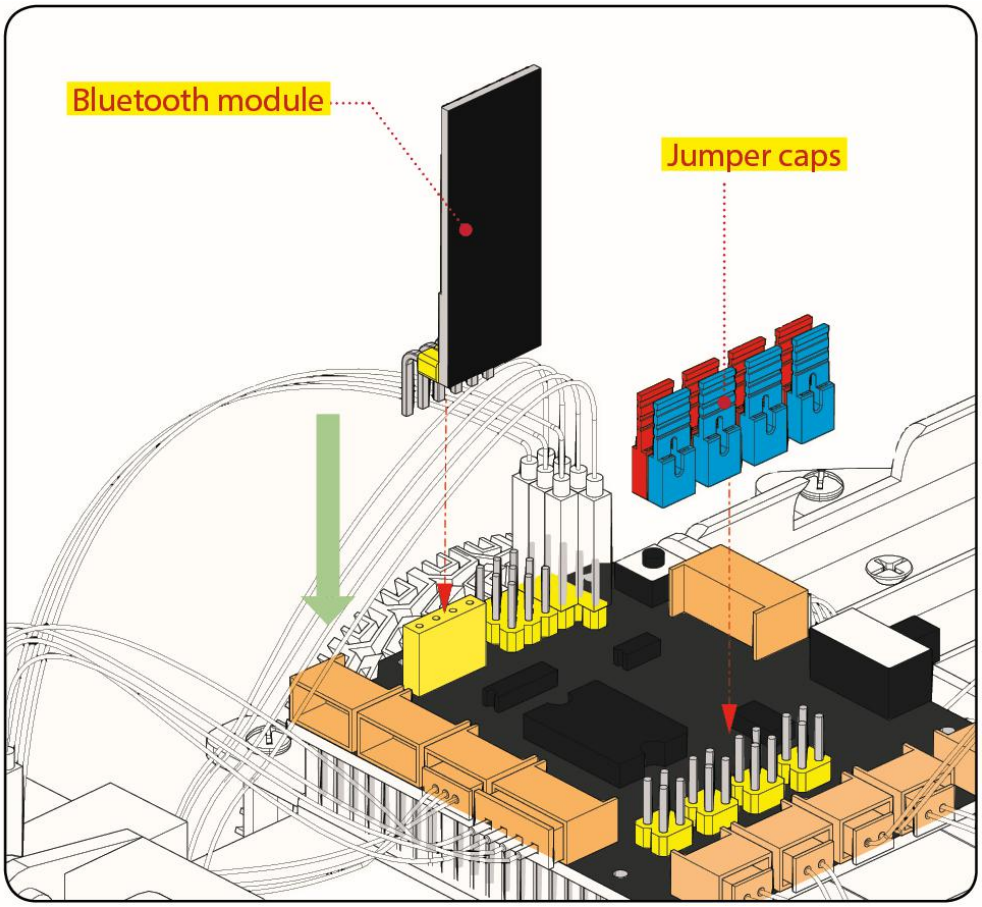
  Jumper cap *8

Note: you need to operate the following steps first before stacking
1. Insert 4P wire of dot matrix and lines (M2, M3) of motor into the front hole
2. Insert 5P wire of line tracking sensor and the lines (M1, M4)of motor into the back hole

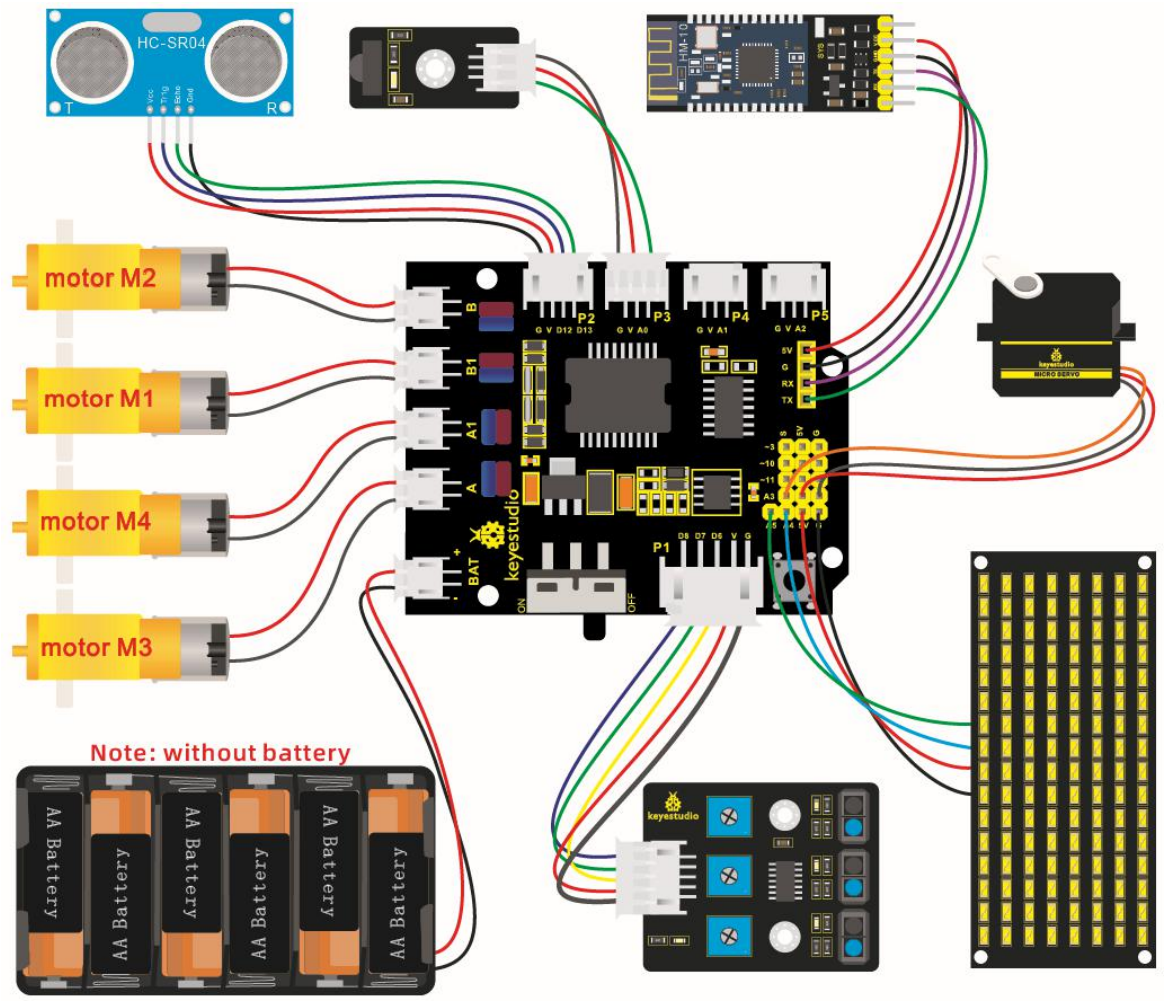

M3*6mm

↘ Complete renderings

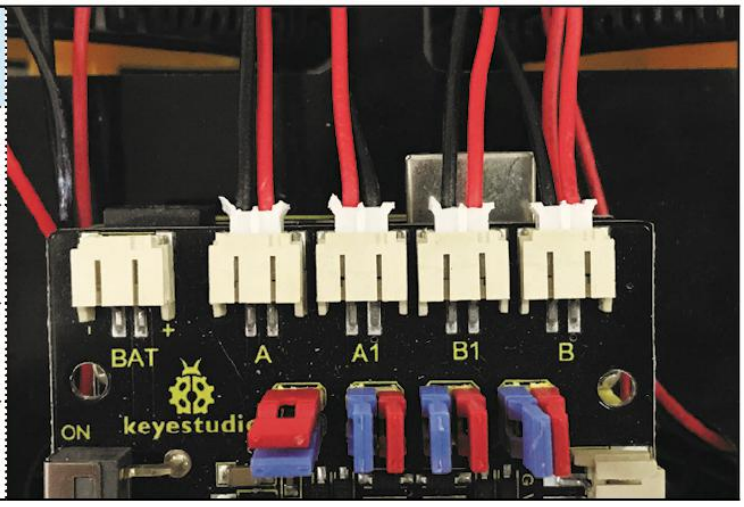




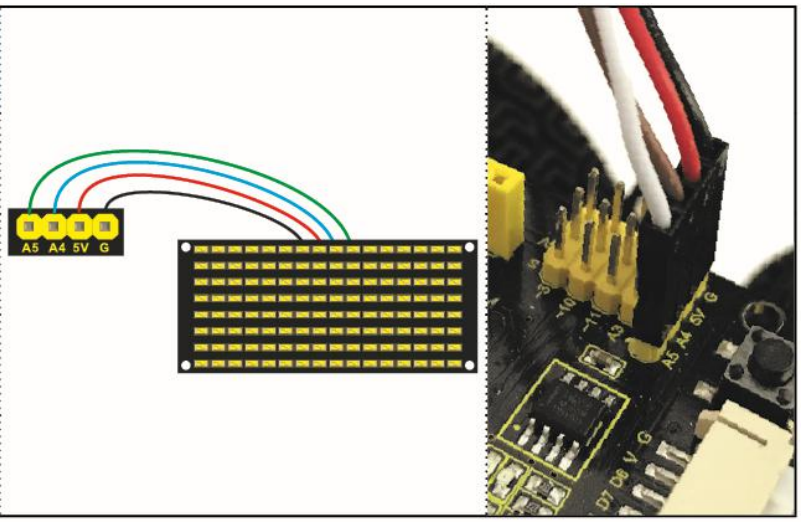
Step 6: Hook-up Guide



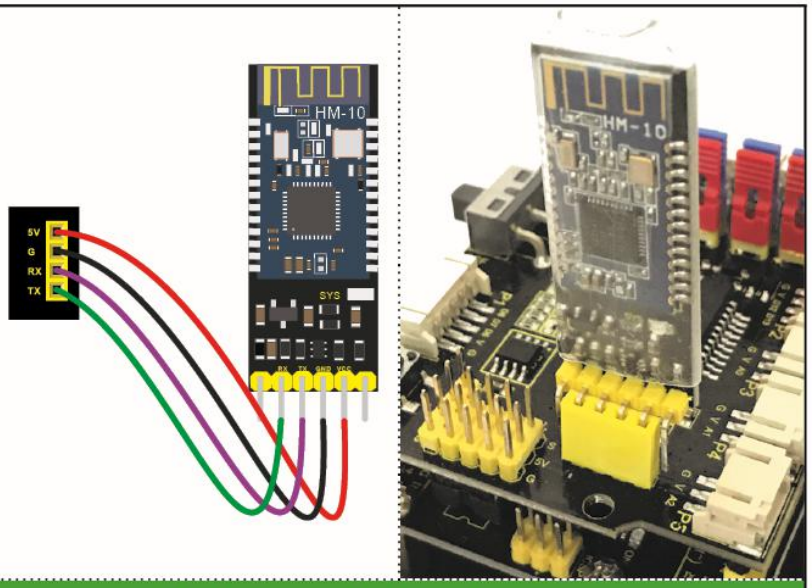
Motor	L298P Shield
M1	B1
M2	B
M3	A
M4	A1



LED Panel	L298P Shield
GND	G
VCC	5V
SDA	A4
SCL	A5

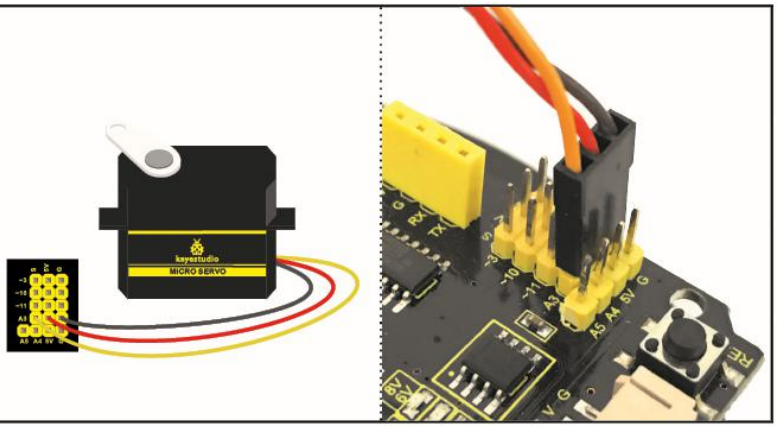


Bluetooth	L298P Shield
RXD	TX
TXD	RX
GND	G
VCC	5V



Note: Remove the Bluetooth module before uploading the program

Servo	L298P Shield
Brown wire	G
Red wire	5V
Orange wire	A3



↘ Final renderings