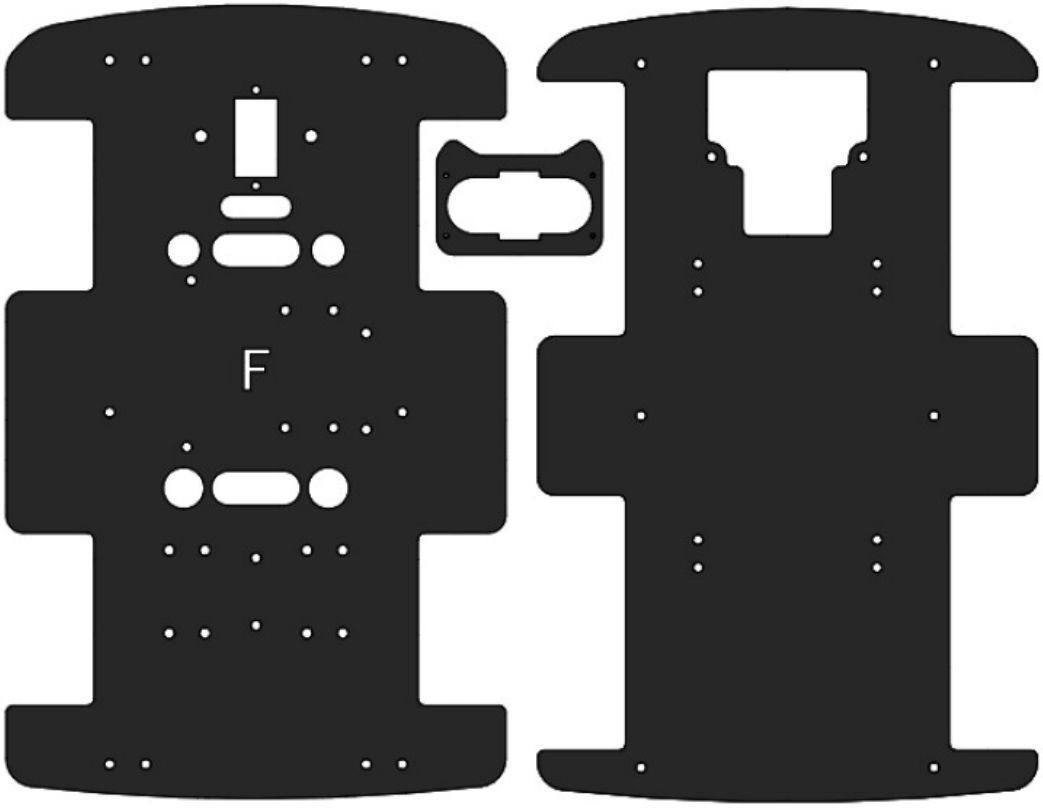
Contents

Acrylic parts



Mechanical parts

Servo x1

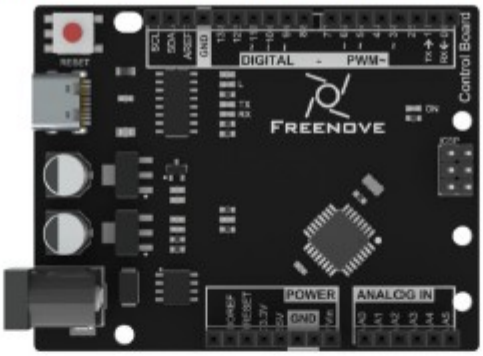
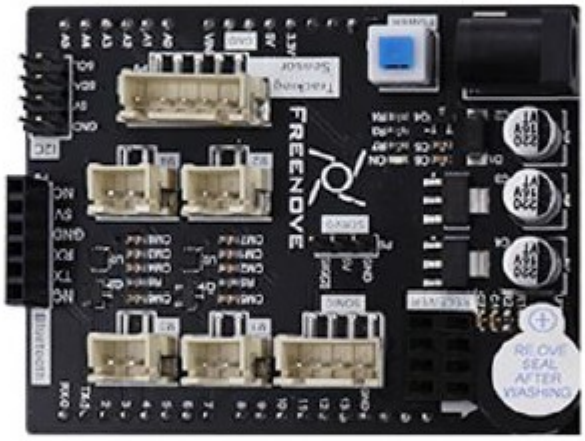
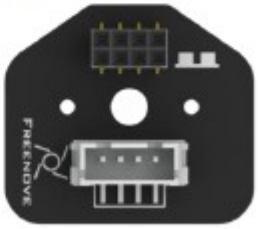
Motor x4

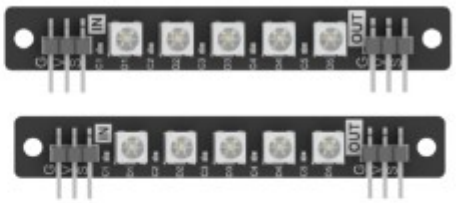
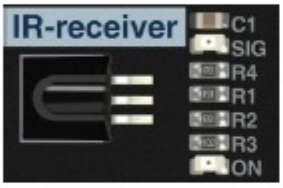
Driver wheel x 4

Motor bracket package x 4

Screw M3*8 , Nut M3, Screw M3*30

Electronic parts

Freenove control board (Your kit will randomly contain **one control board**) 	
Freenove 4WD extension board 	
Line-tracking infrared sensor 	Ultrasonic module connector 

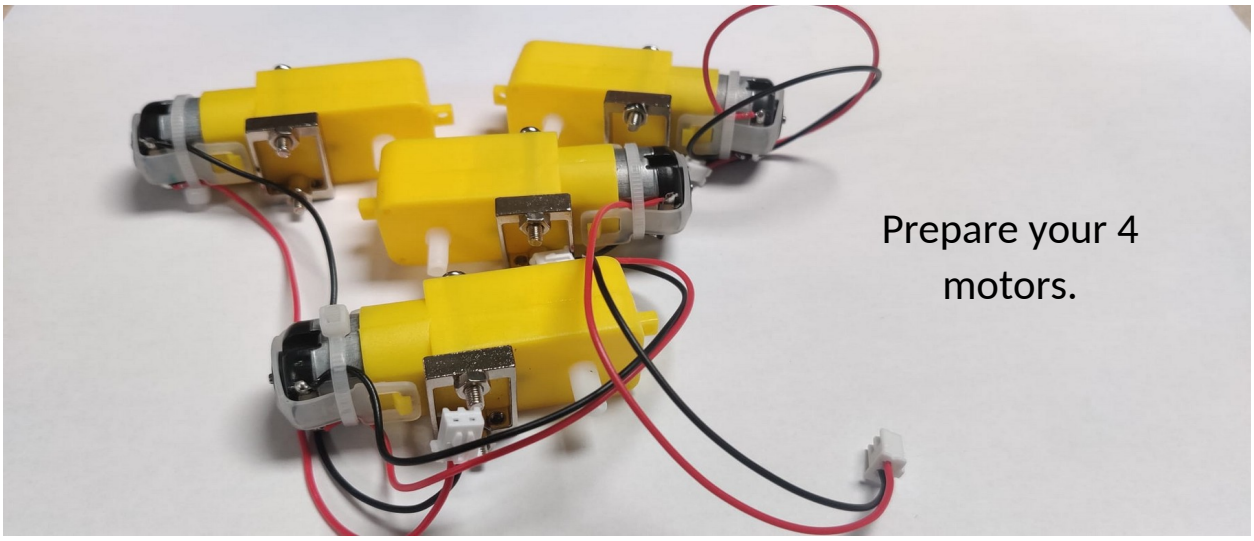
WS2812B_LED_controller 	WS2812B_LED 
Ultrasonic module 	Bluetooth 
Wires 	USB Cable 
IRreceiver 	Tape 
IR remote 	Battery holder 
RF remote kit package (only contained in the Version with RF remote control)	

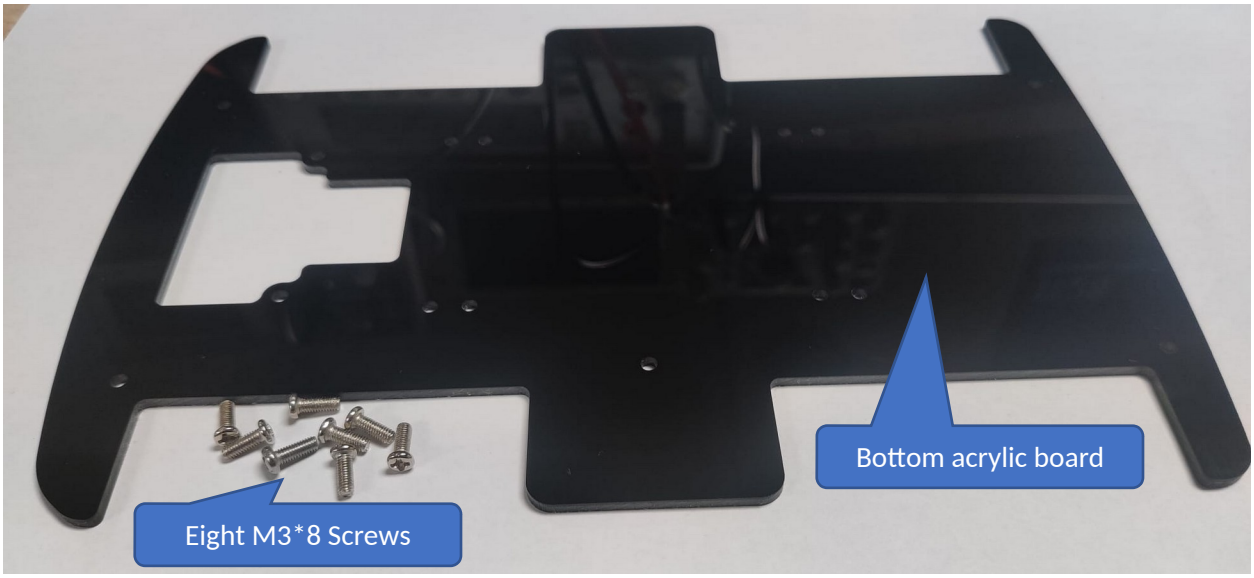
Tools

Cross Screwdriver x1 
Socket x1 (only one is included in the kit) 

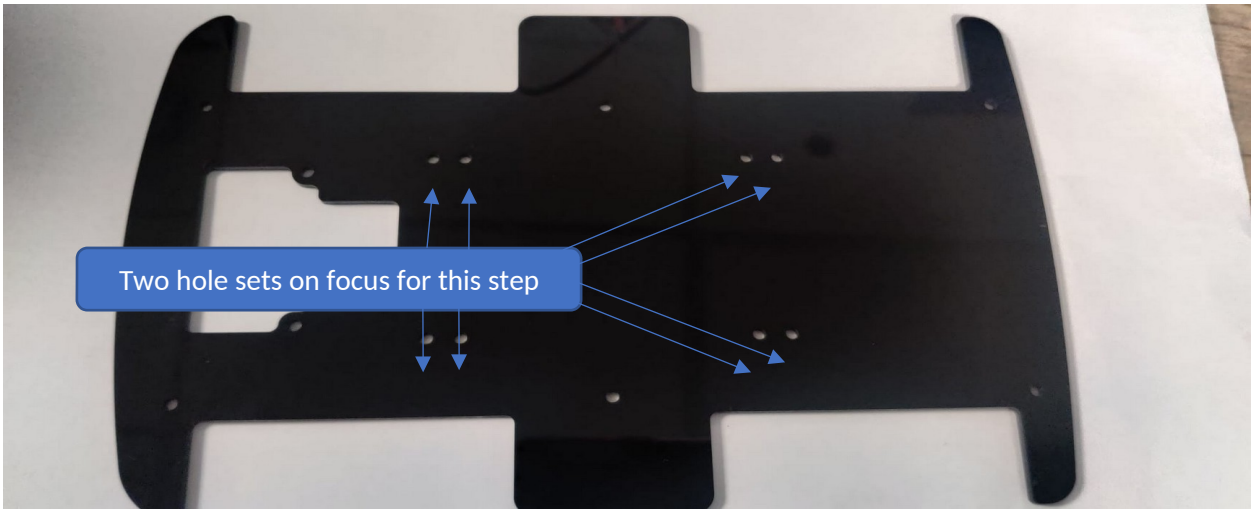
Assembly

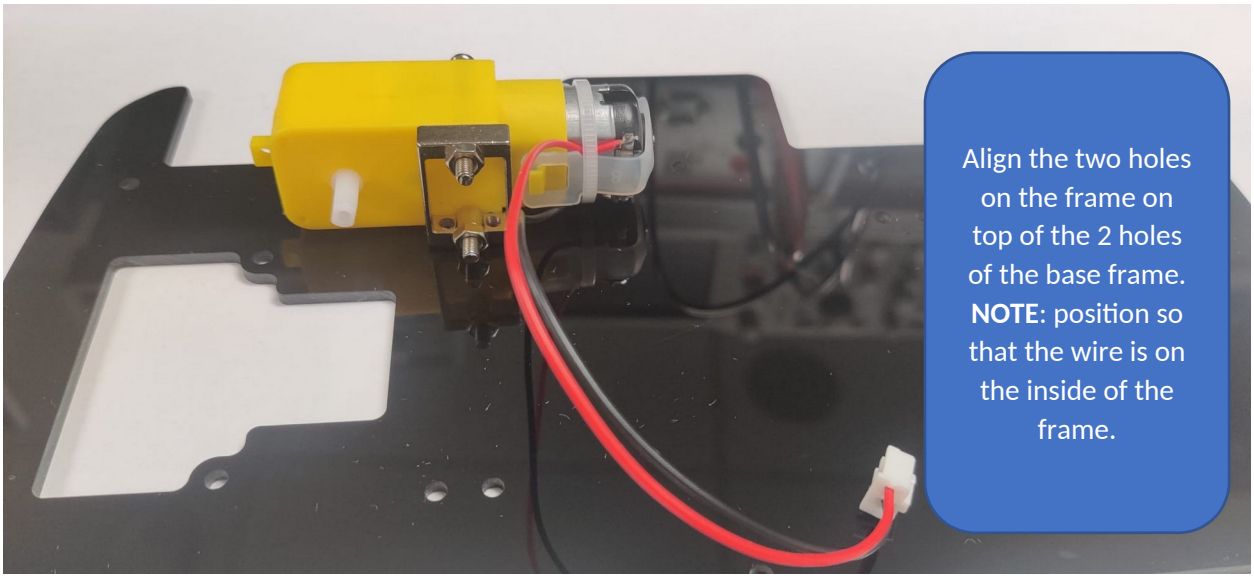
Prepare the following components:

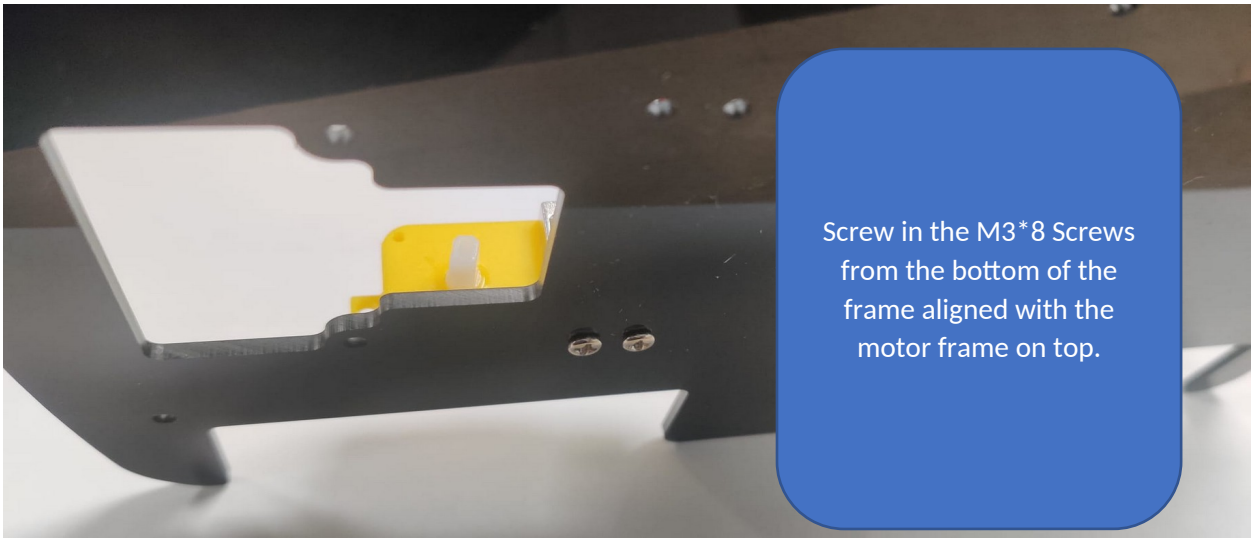


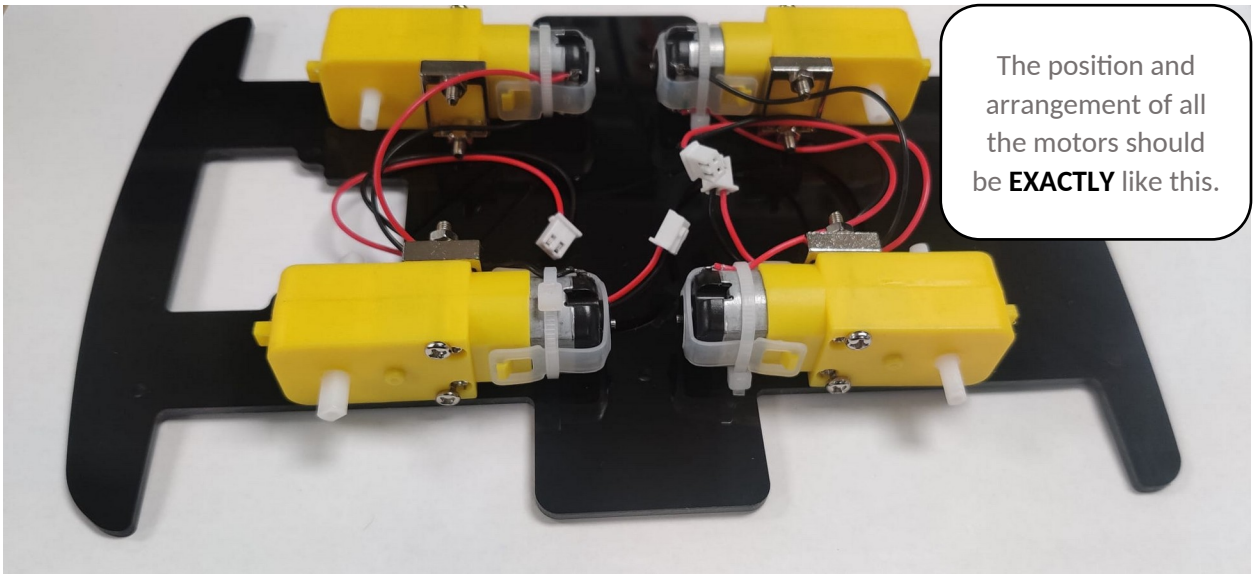


Assemble them as follows:









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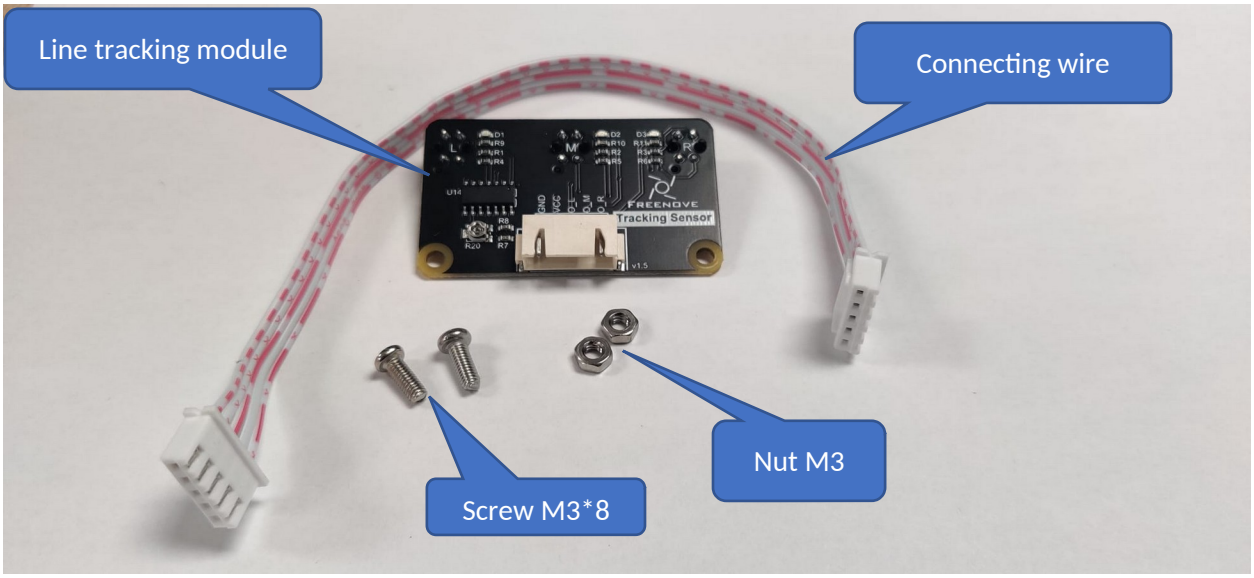
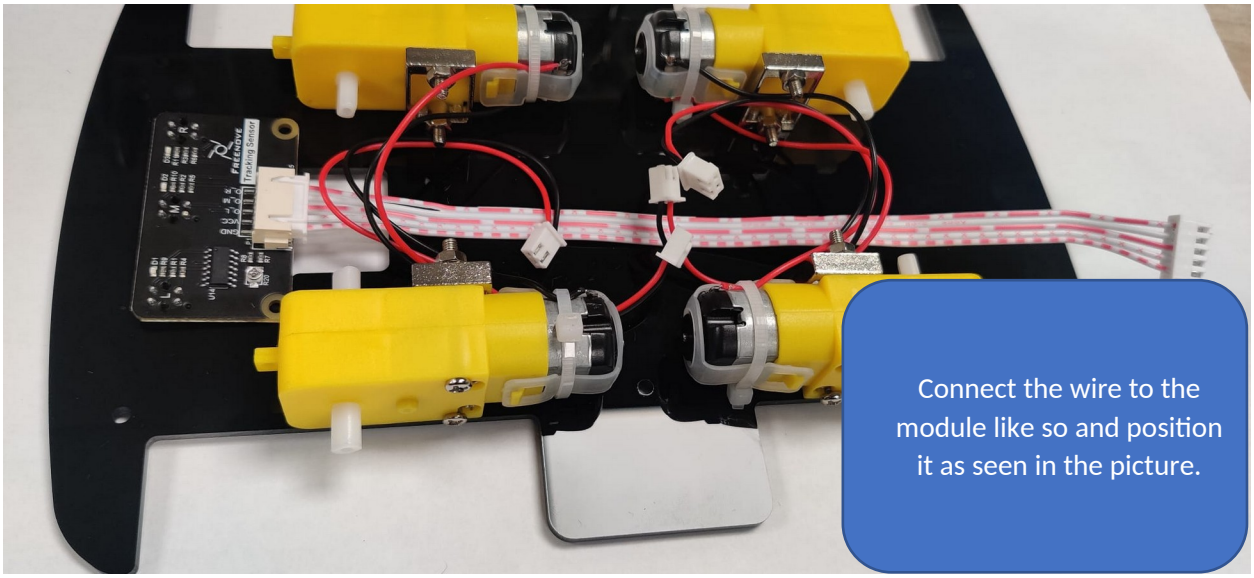
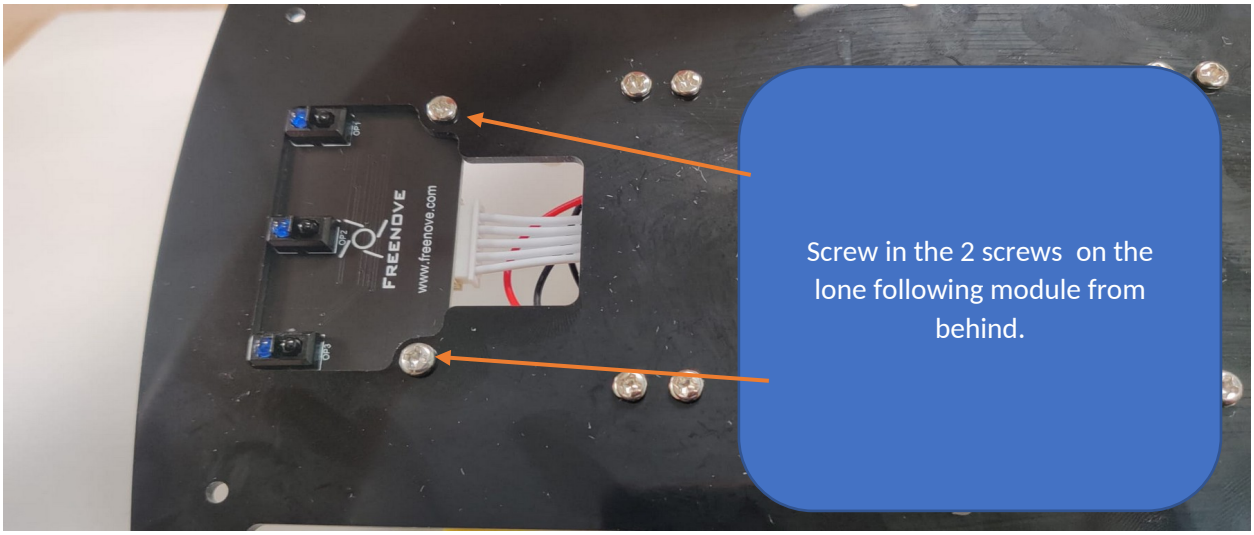
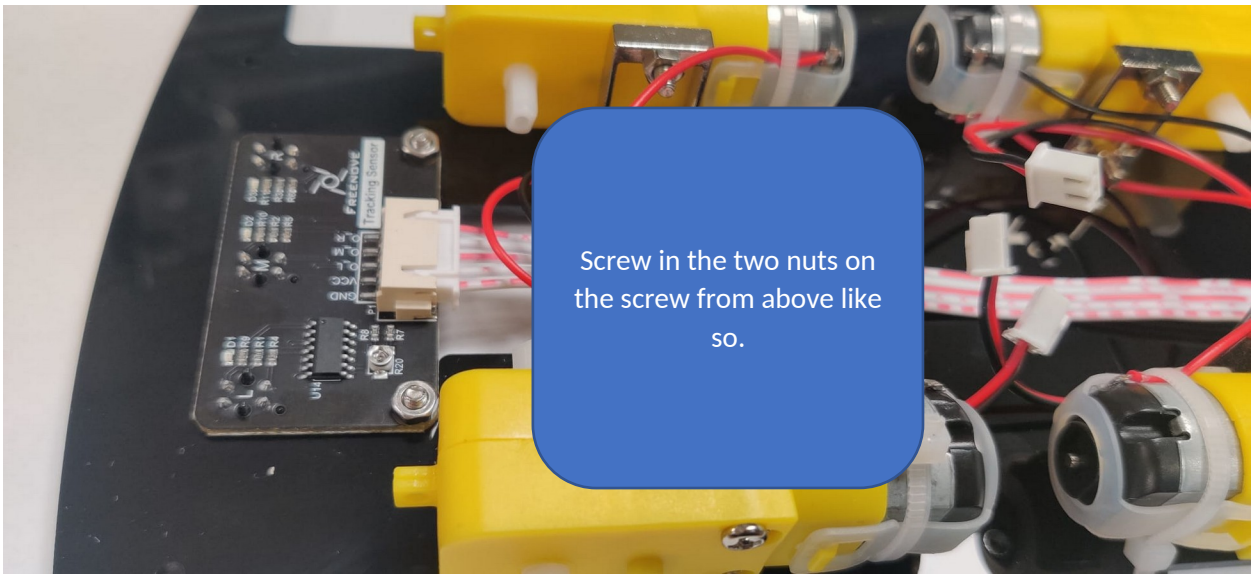
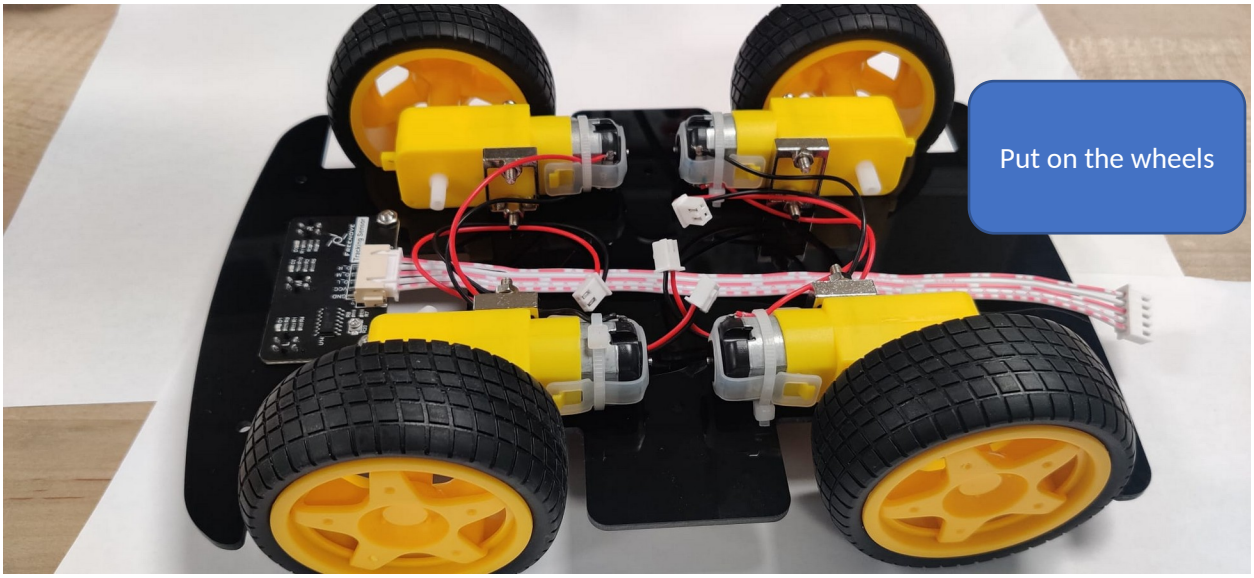


Assemble them as follows:

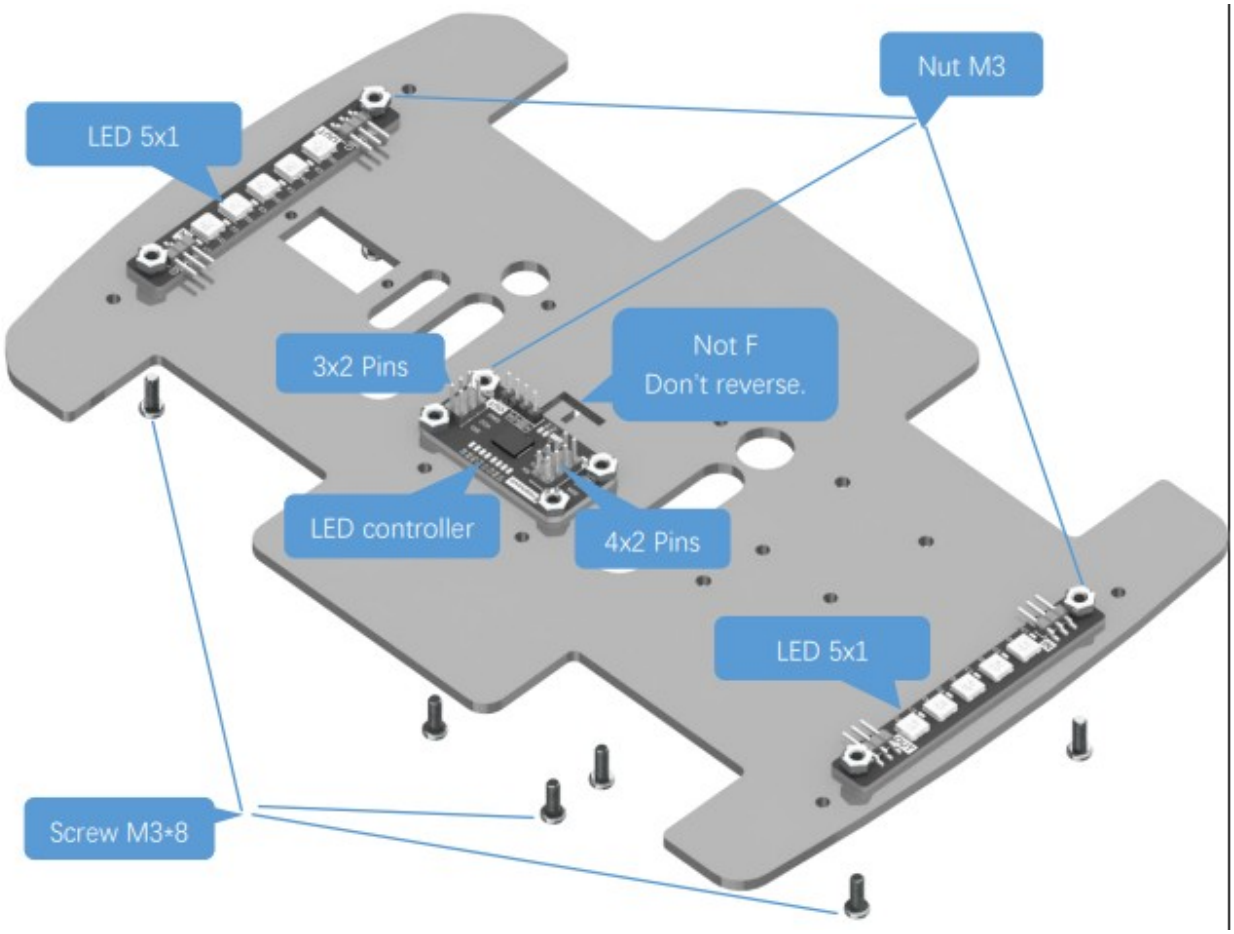




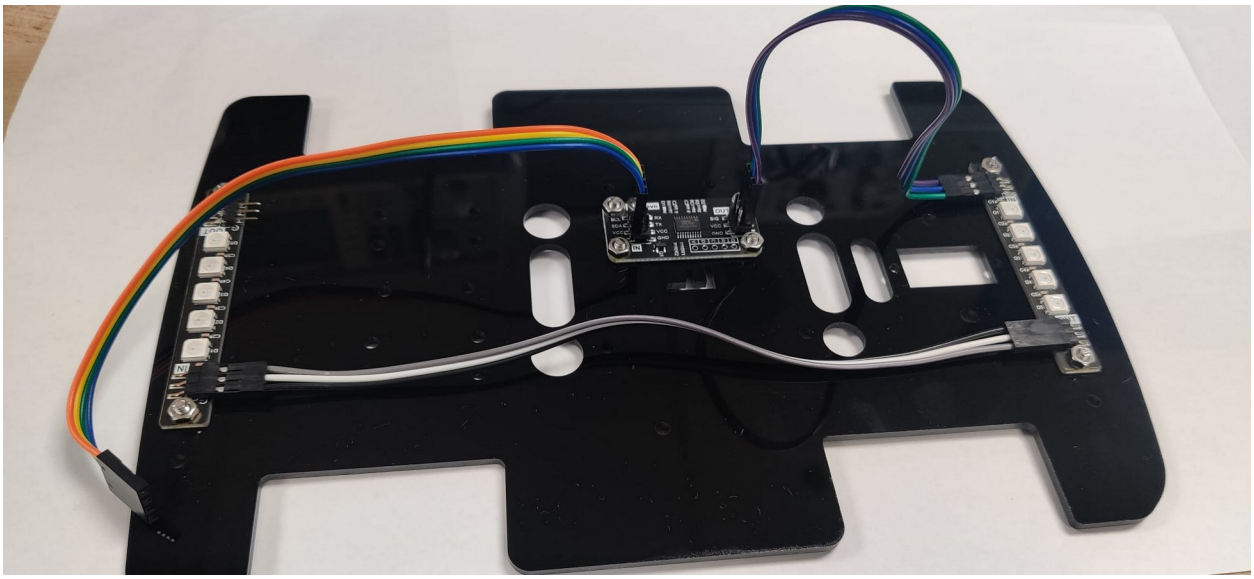

Screw in the two nuts on the screw from above like so.

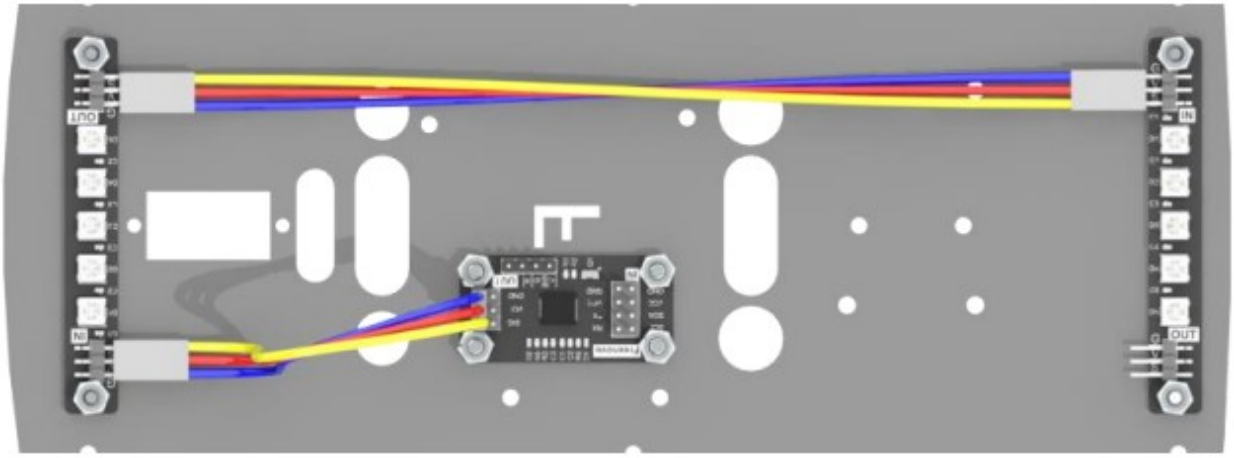

Put on the wheels

Prepare the following components:

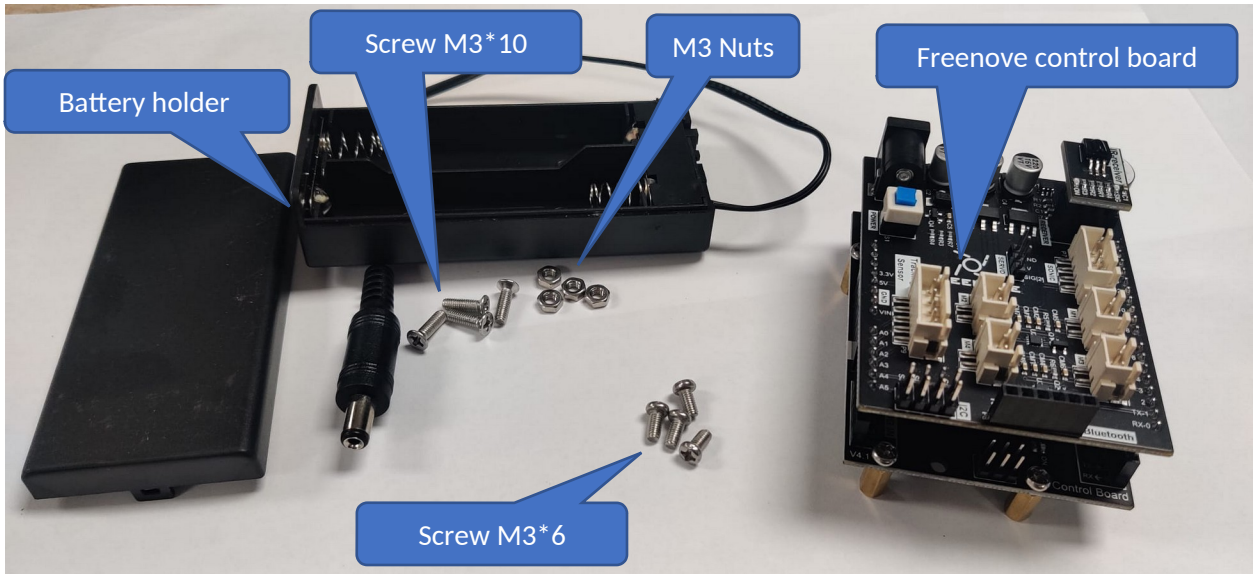


Assemble them as follows:

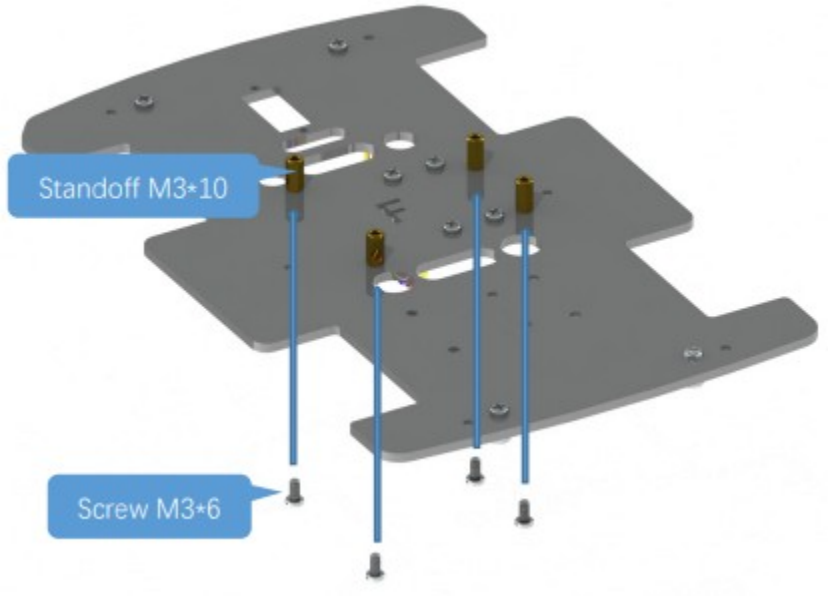


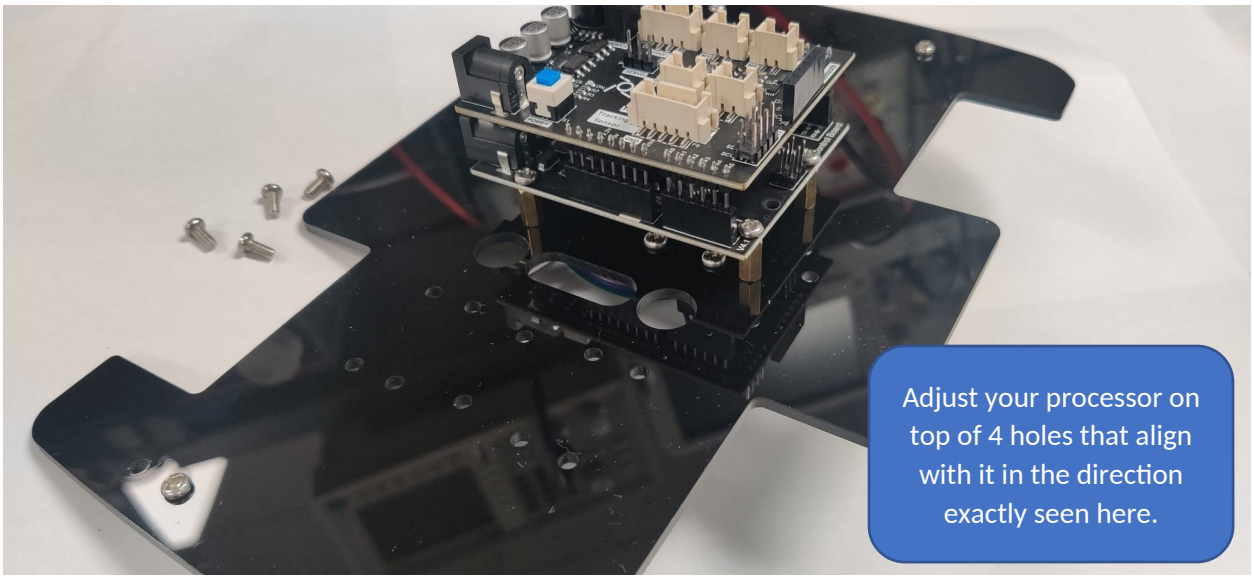


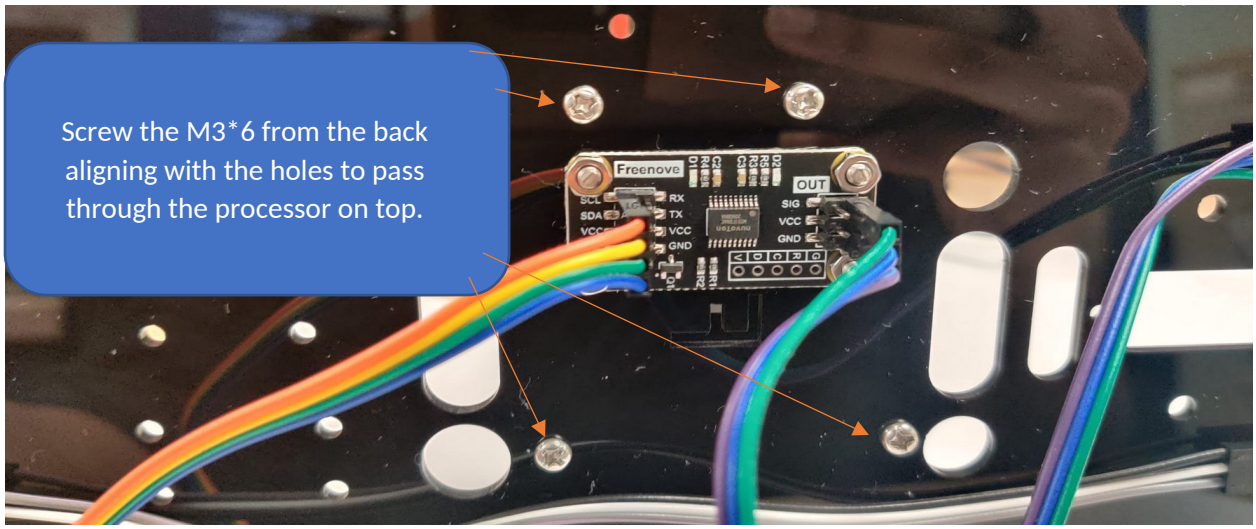
Prepare the following components:



Assemble them as follows:

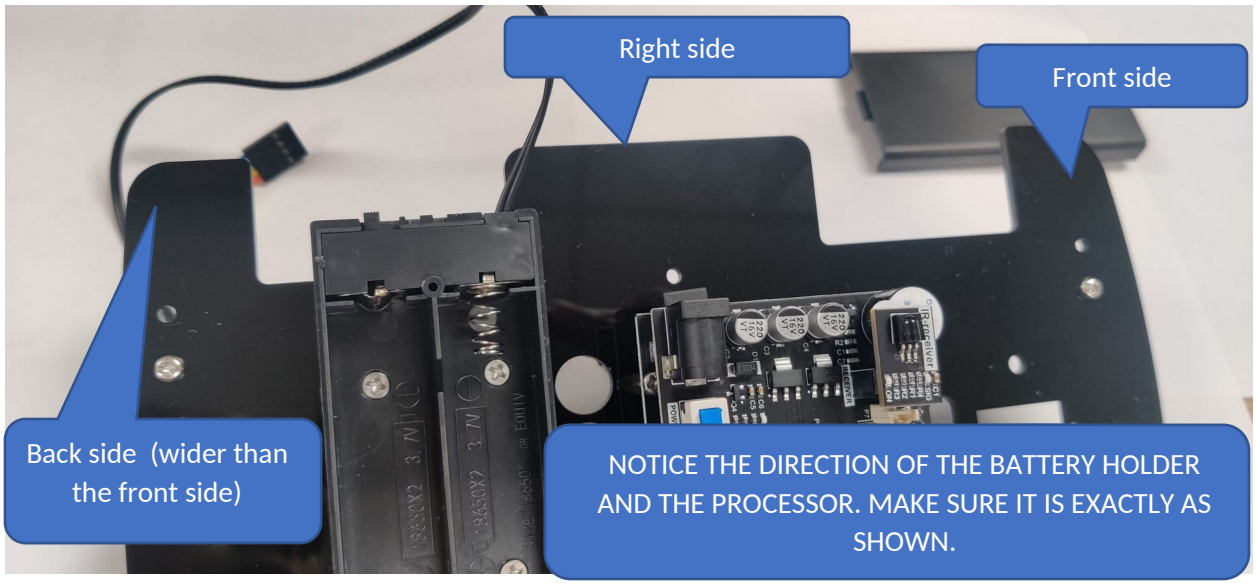


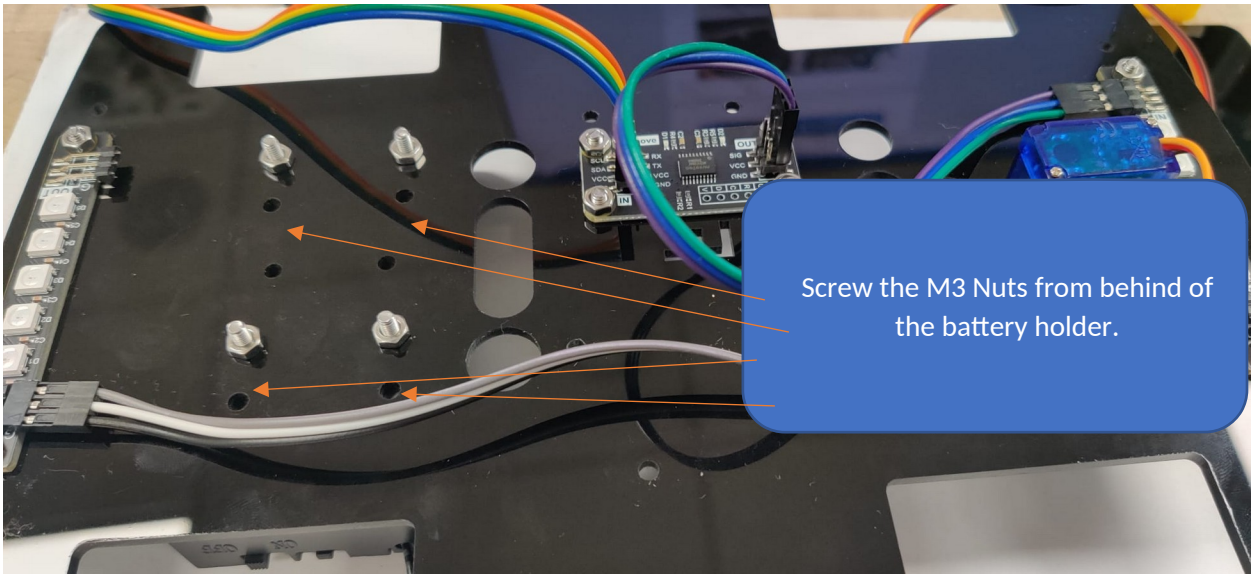



Screw the M3*6 from the back aligning with the holes to pass through the processor on top.
Freenove
OUT
SIG
VCC
GND
RX
TX
VCC
GND

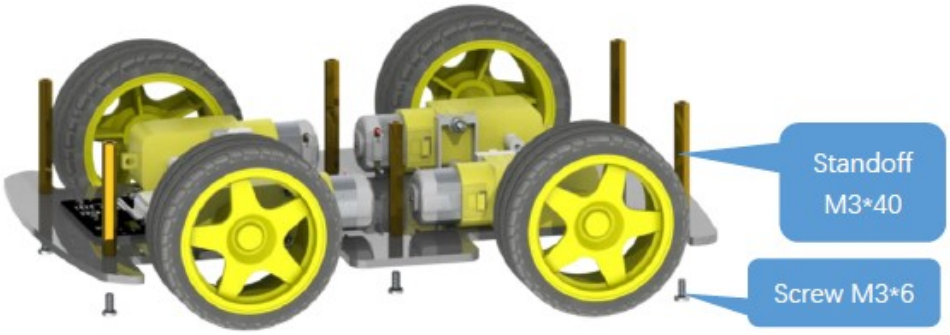

Align the battery holder over the 4 holes like so.


Screw the M3*10 Screws from the top.

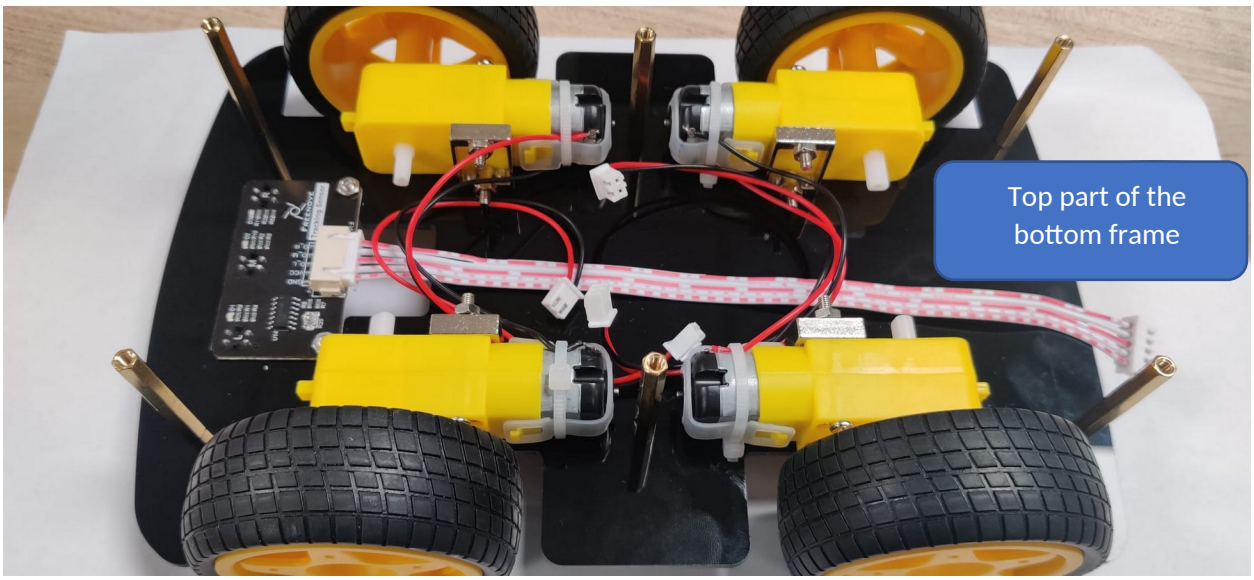

Right side
Front side
Back side (wider than the front side)
NOTICE THE DIRECTION OF THE BATTERY HOLDER AND THE PROCESSOR. MAKE SURE IT IS EXACTLY AS SHOWN.

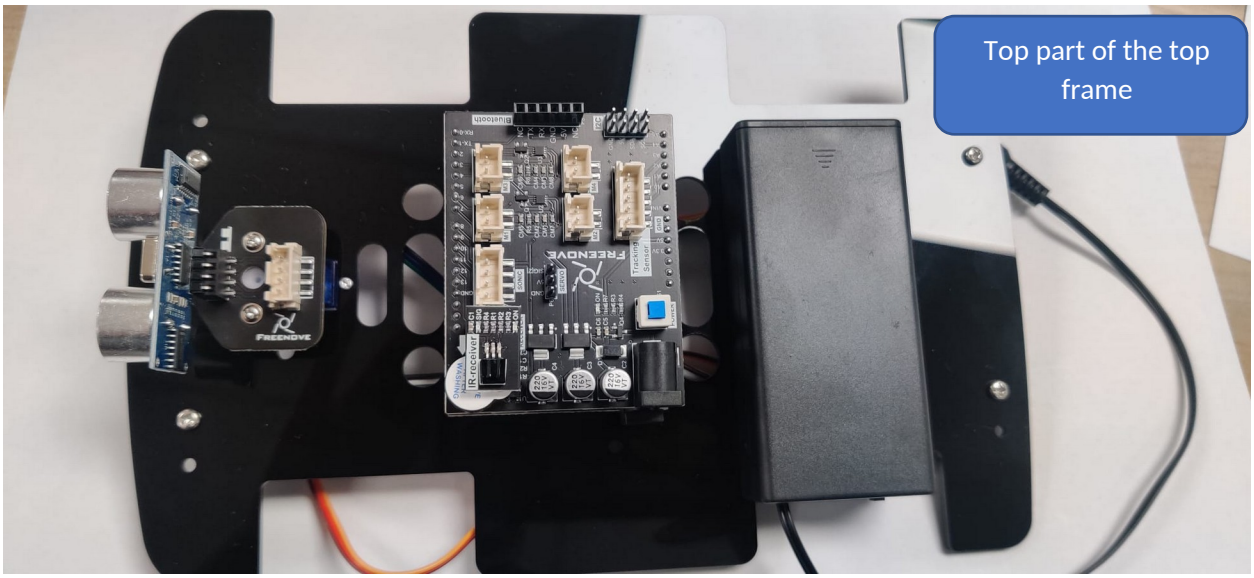

Screw the M3 Nuts from behind of the battery holder.

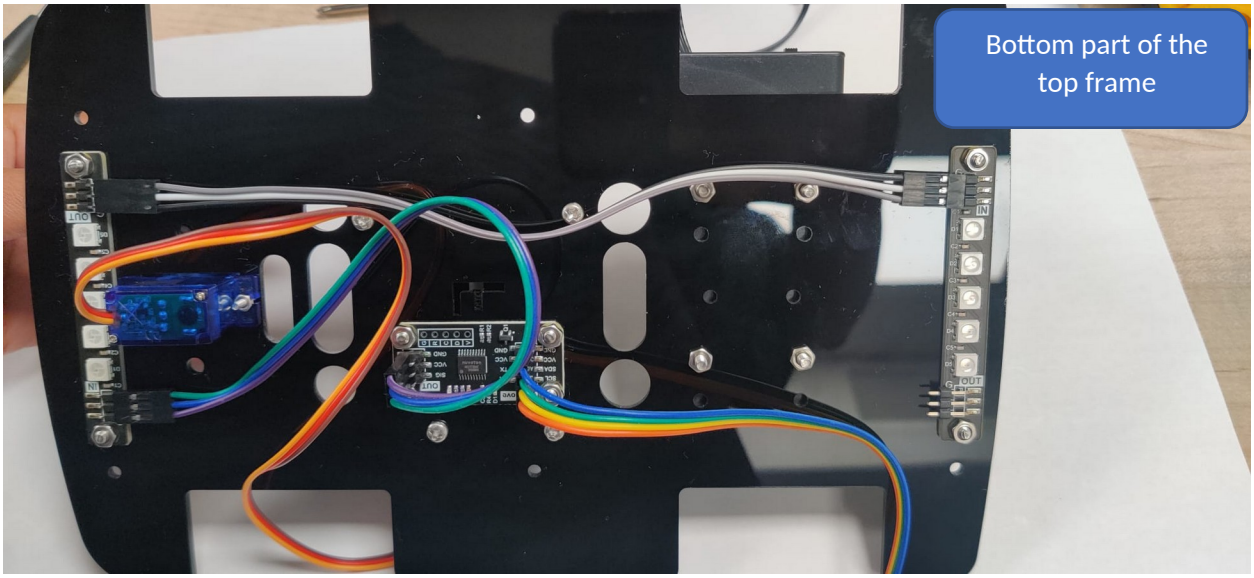

Put your batteries in and close the battery holder.


Standoff M3*40
Screw M3*6

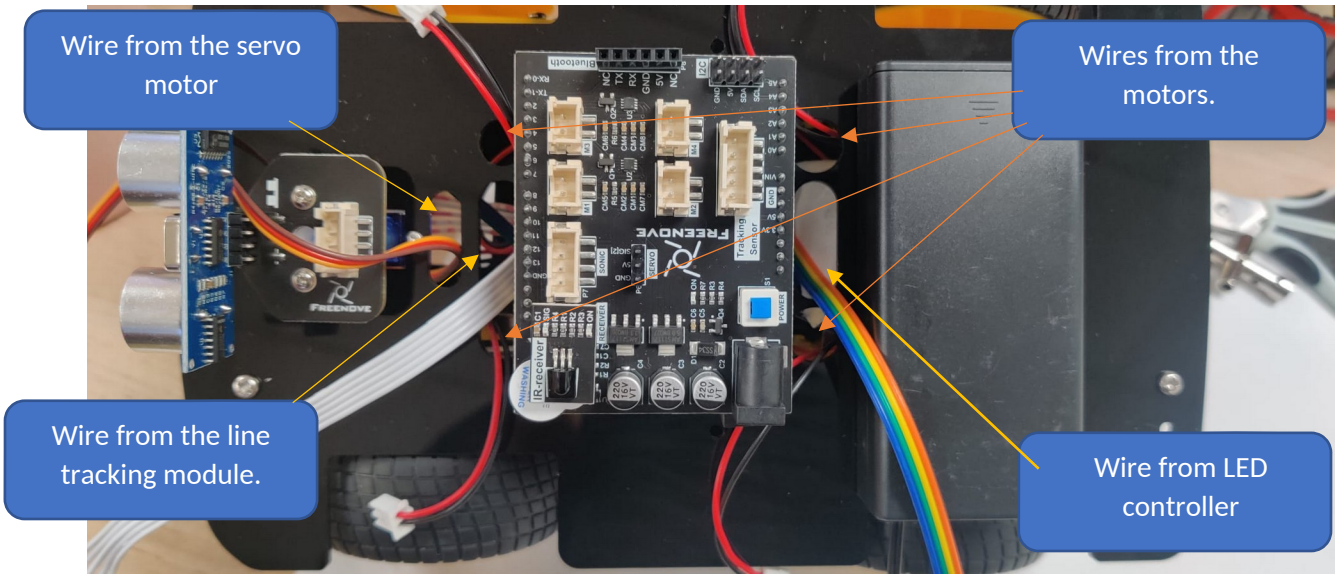
Now you should have the following progress on the top and bottom frames of the car:



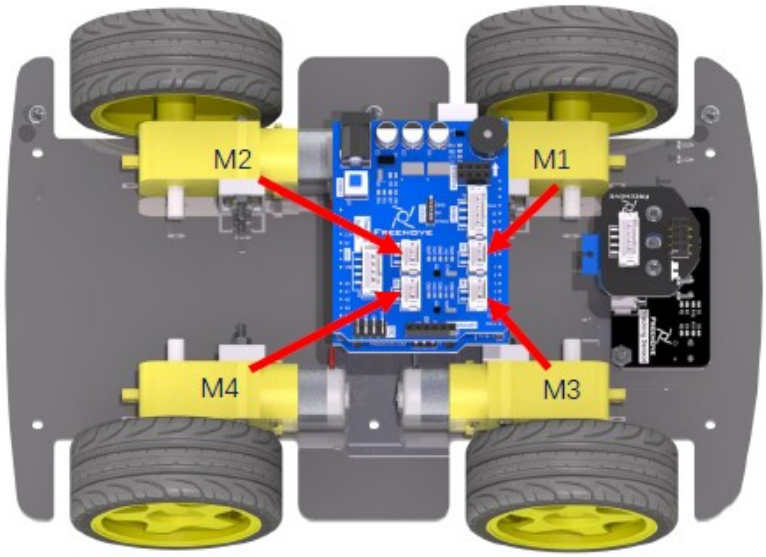


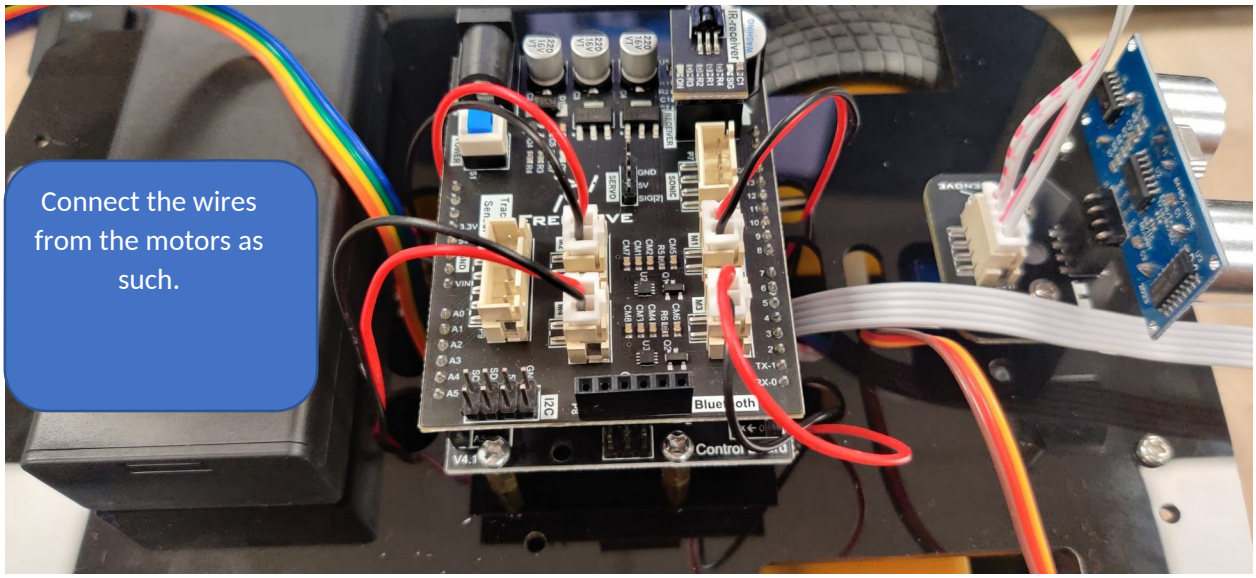


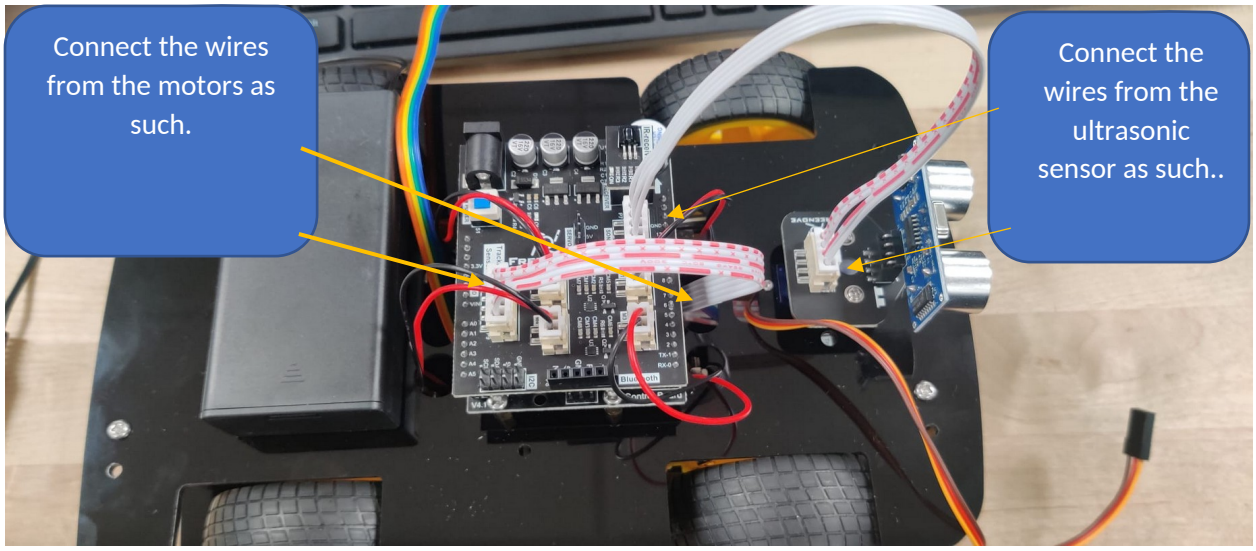
Now arrange the wires and pass them through the holes on the frame. Make it so that the wires are not stretched. The best way to arrange them is:



Connect the motor wire to the interface of the board. As below.



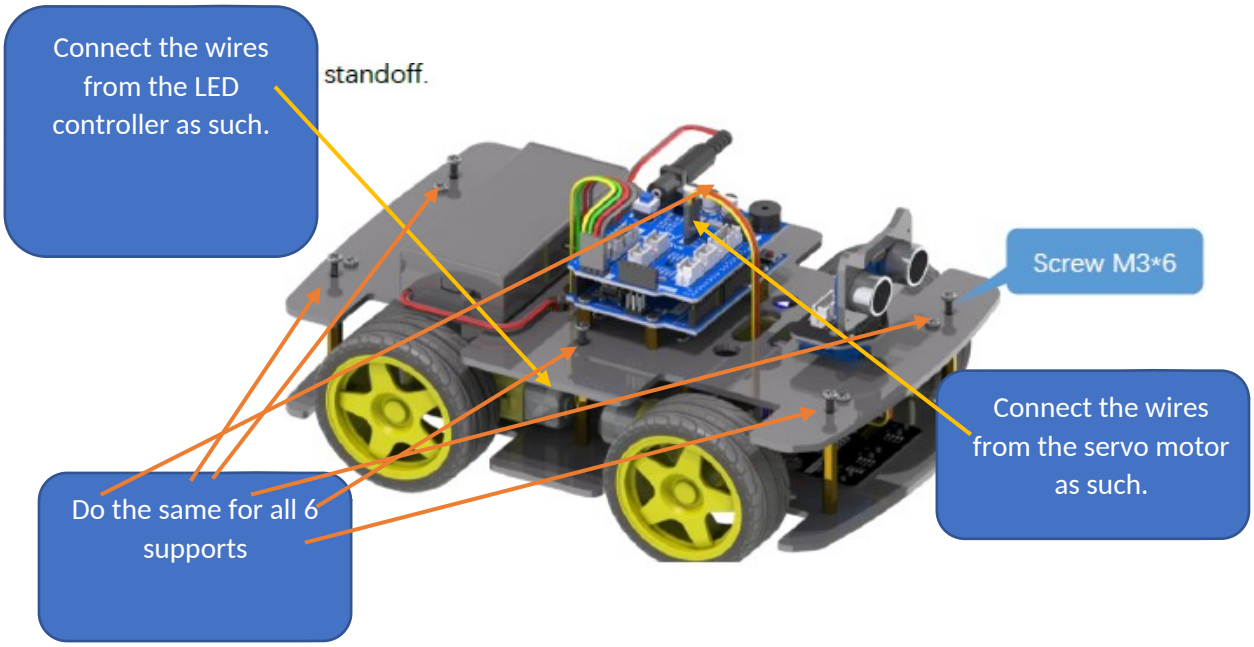




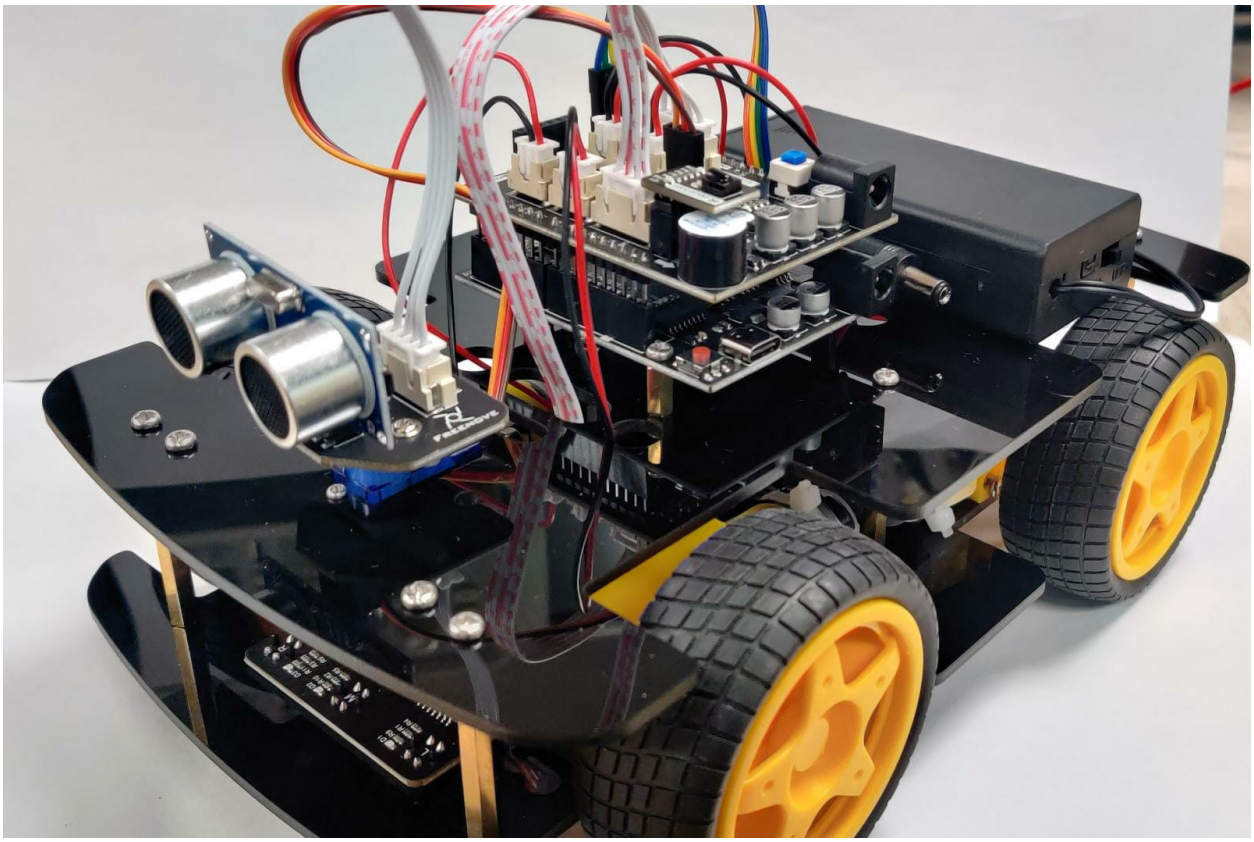
If you look at the writing at the metal pins from the LED CONTROLLER to the microprocessor:

- The ‘SCL’ on the LED controller is connected to the ‘SDA’ of the microcontroller.
- The ‘SDA’ on the LED controller is connected to the ‘SCL’ of the microcontroller.
- The ‘VCC’ on the LED controller is connected to the ‘5V’ of the microcontroller.
- The ‘GND’ on the LED controller is connected to the ‘GND’ of the microcontroller.

The positions to plug in the wires are shown in the picture below.



Then you are done with your robotic car. Your finished product should look as the picture below.



To start programming you need to connect the following wires: