



## *Assemble the Robot Step by Step*

--on Production

*(The Four-wheel car)*

# Preface

## Our Company

Established in 2011, Elegoo Inc. is a professional manufacturer and exporter that specializes in the design, development production and marketing of Arduino, 3d printers, raspberry pi and STM32. We are located in Shenzhen which is known as China Silicon Valley. All of our products comply with international quality standards and are greatly appreciated in a variety of different markets throughout the world.

Our official website is: [Http://www.elegoo.com](http://www.elegoo.com)

Our USA amazon shop is: [Http://www.amazon.com/shops/A2WWHQ25ENKVJ1](http://www.amazon.com/shops/A2WWHQ25ENKVJ1)

## Our Tutorial

The tutorial is for beginners. In the tutorial, you can learn how to use Arduino controller board, sensors and components. You can also learn the basic knowledge of all the parts. But if you want to study Arduino systematically, we recommend you to buy the book "Arduino Cookbook" which is written by Michael Margolis.

## This Tutorial

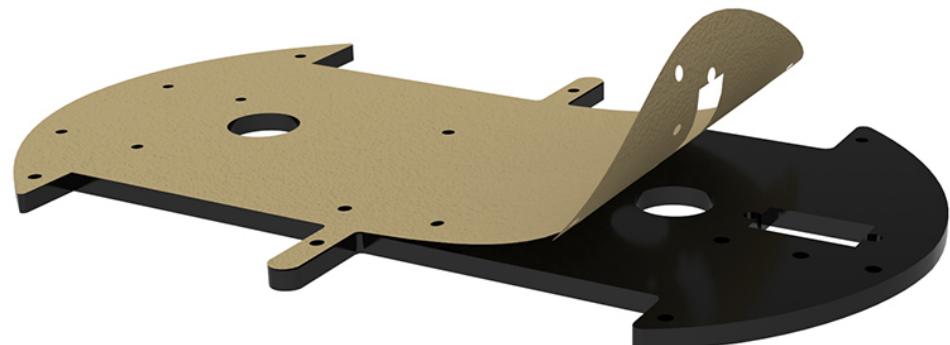
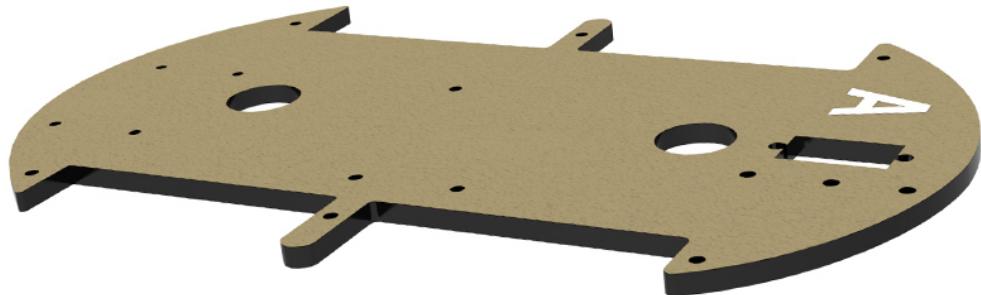
This tutorial will show you how to assemble the car and offer you the basic program to make all the function come true.

If you want to learn more than the tutorial, Google would be a great place to learn.

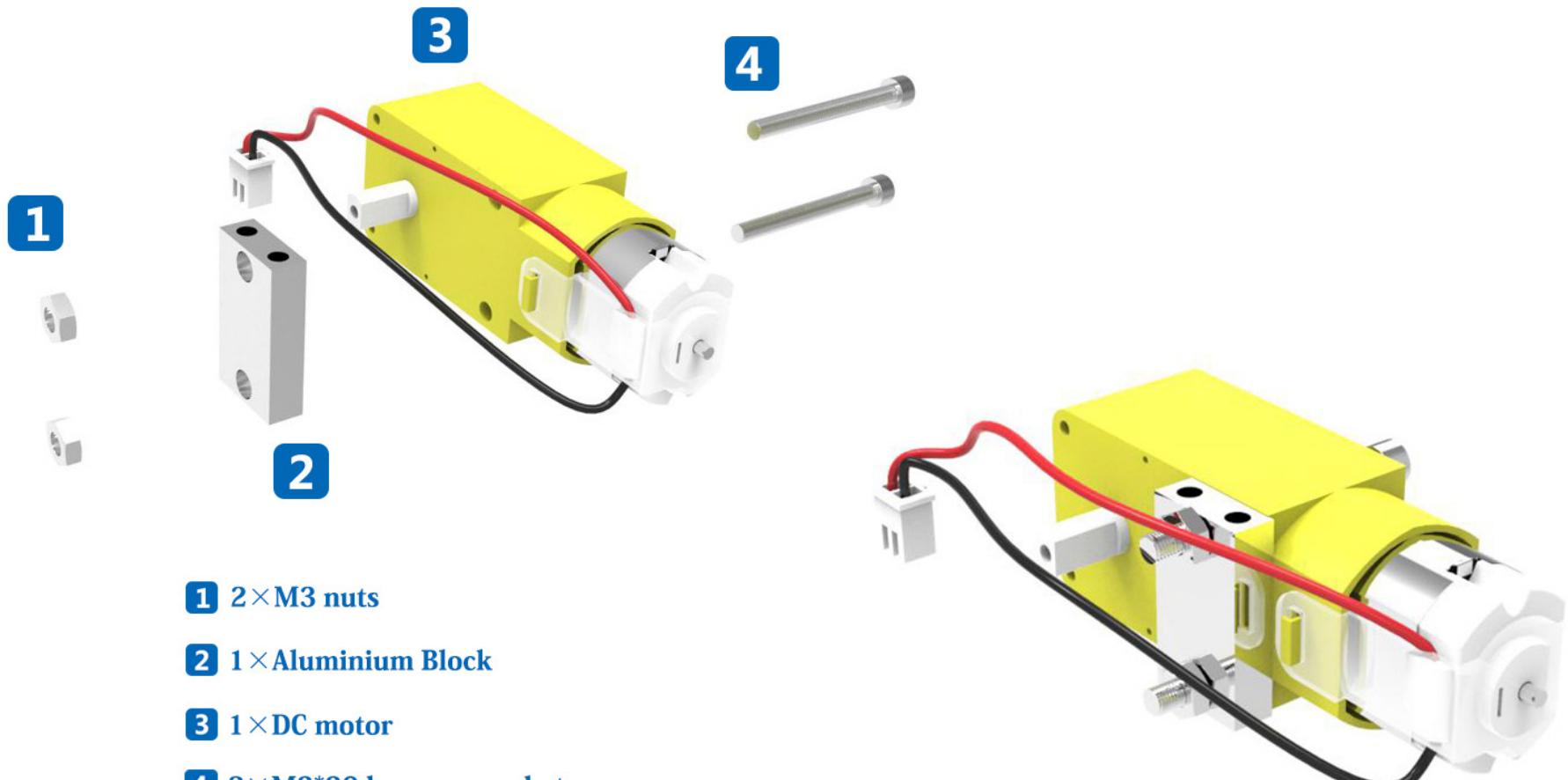
## Our after-sales

If you have any questions or suggestions about our company, product or tutorial. Please drop us a line at [service@elegoo.com](mailto:service@elegoo.com) (US and CA customers) or [EUservice@elegoo.com](mailto:EUservice@elegoo.com) (Europe Customers)

We appreciate all your critical advices and will do our very best to meet your expectation.



**Attention: Remove the protective film before assembling**



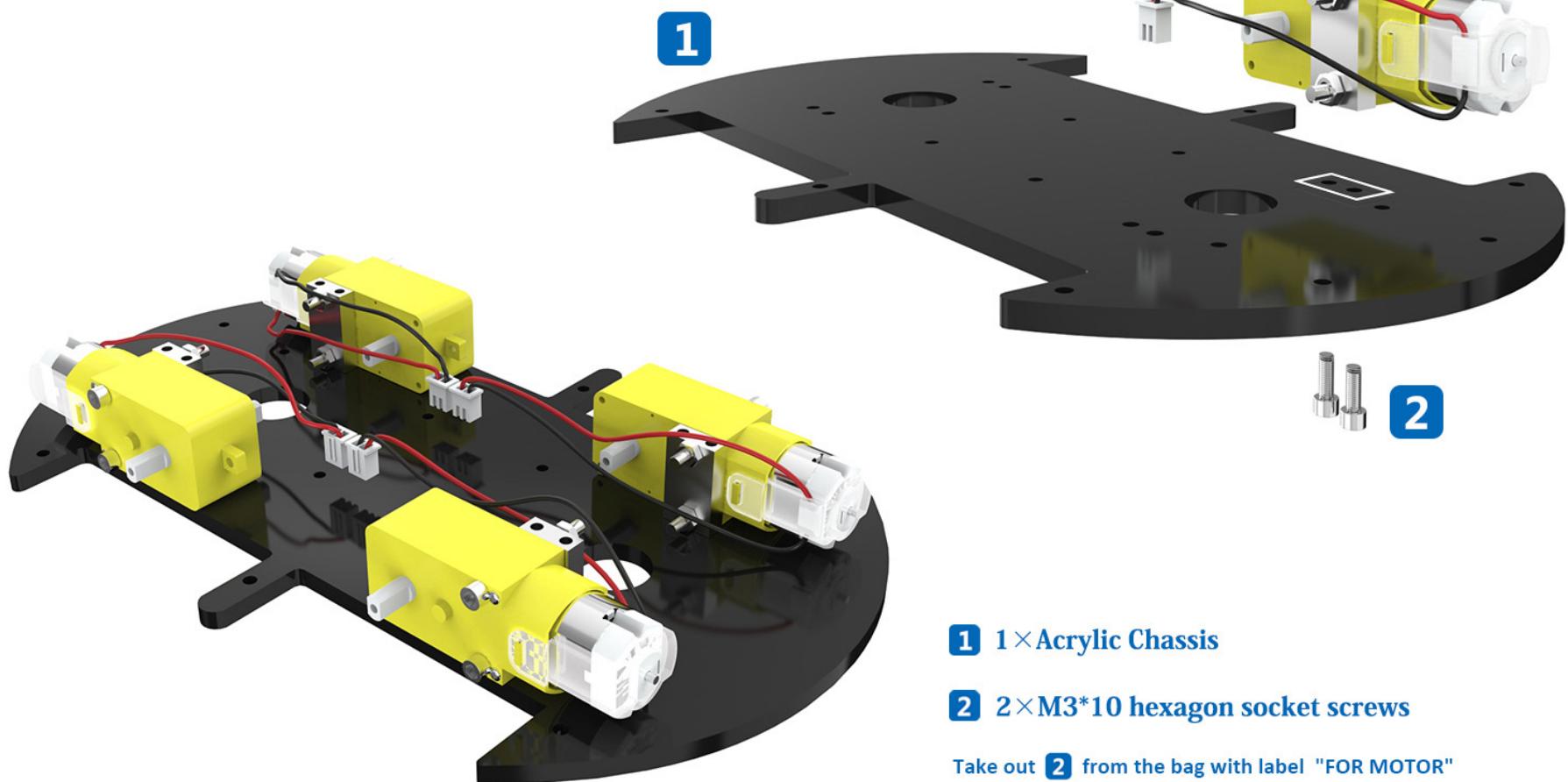
**1** 2×M3 nuts

**2** 1×Aluminium Block

**3** 1×DC motor

**4** 2×M3\*30 hexagon socket screws

Take out **1** **2** **4** from the bag with label "FOR MOTOR"

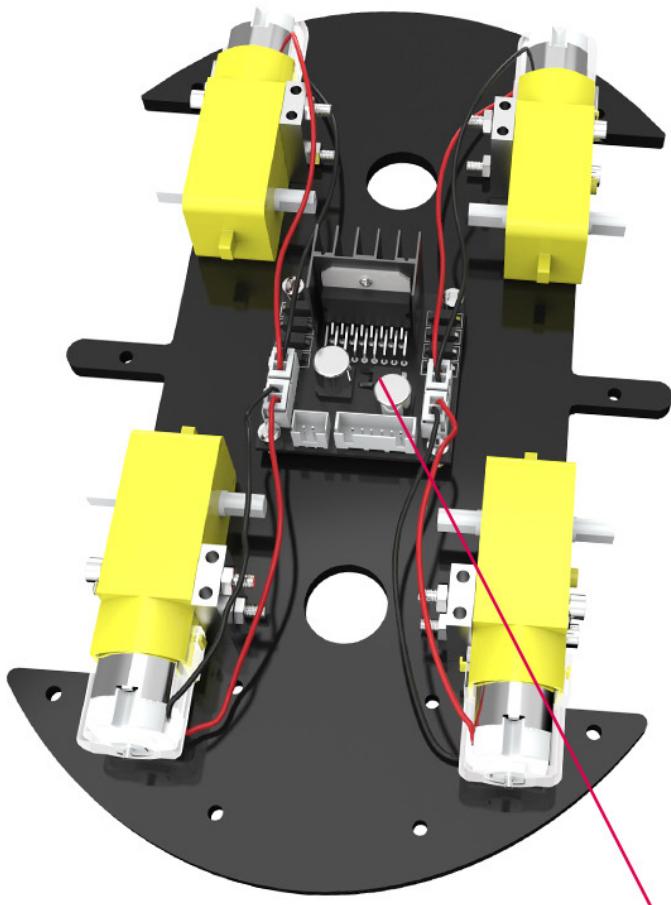


**1** 1×Acrylic Chassis

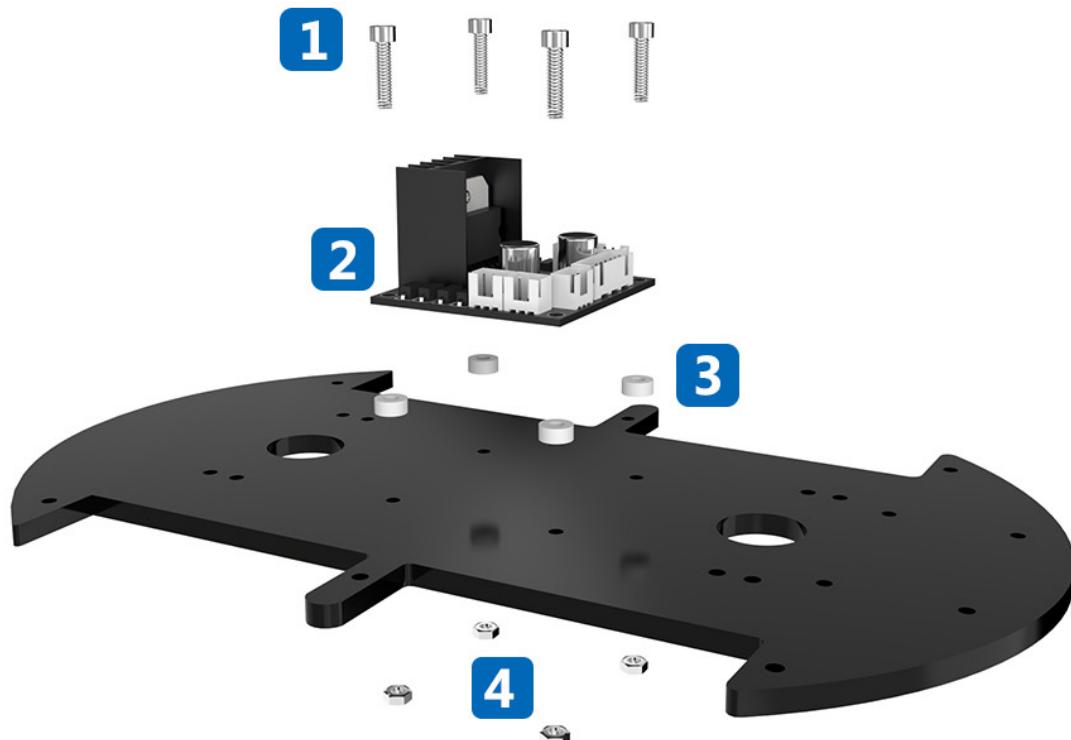
**2** 2×M3\*10 hexagon socket screws

Take out **2** from the bag with label "FOR MOTOR"

Fasten the screws into the holes in the white frame



**pay attention to the direction of L298N module.**



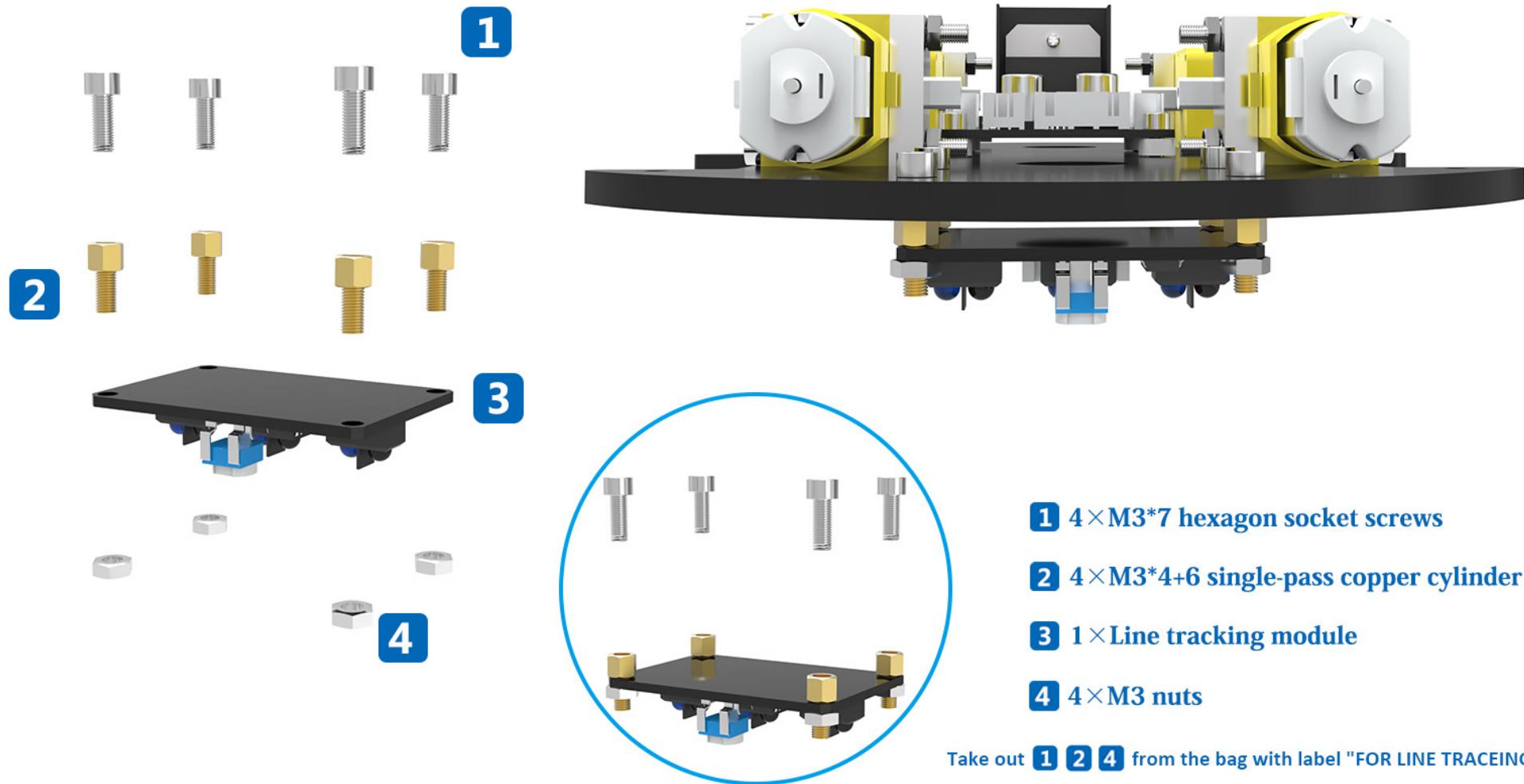
**1** 4×M3\*14 hexagon socket screws

**2** 1×L298N

**3** 4×separation shim

**4** 4×M3 nuts

Take out **1** **3** **4** from the bag with label "FOR UNO 、 L298N"



**1** 4×M3\*7 hexagon socket screws

**2** 4×M3\*4+6 single-pass copper cylinder

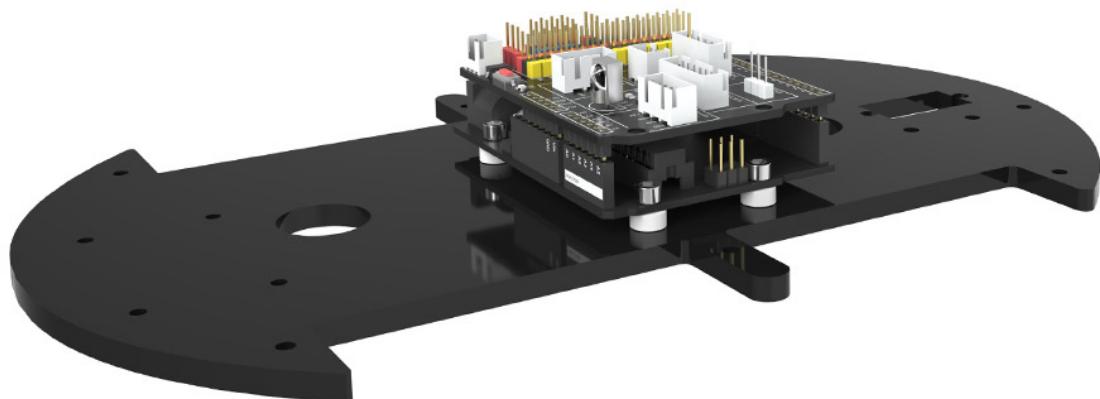
**3** 1×Line tracking module

**4** 4×M3 nuts

Take out **1** **2** **4** from the bag with label "FOR LINE TRACING"

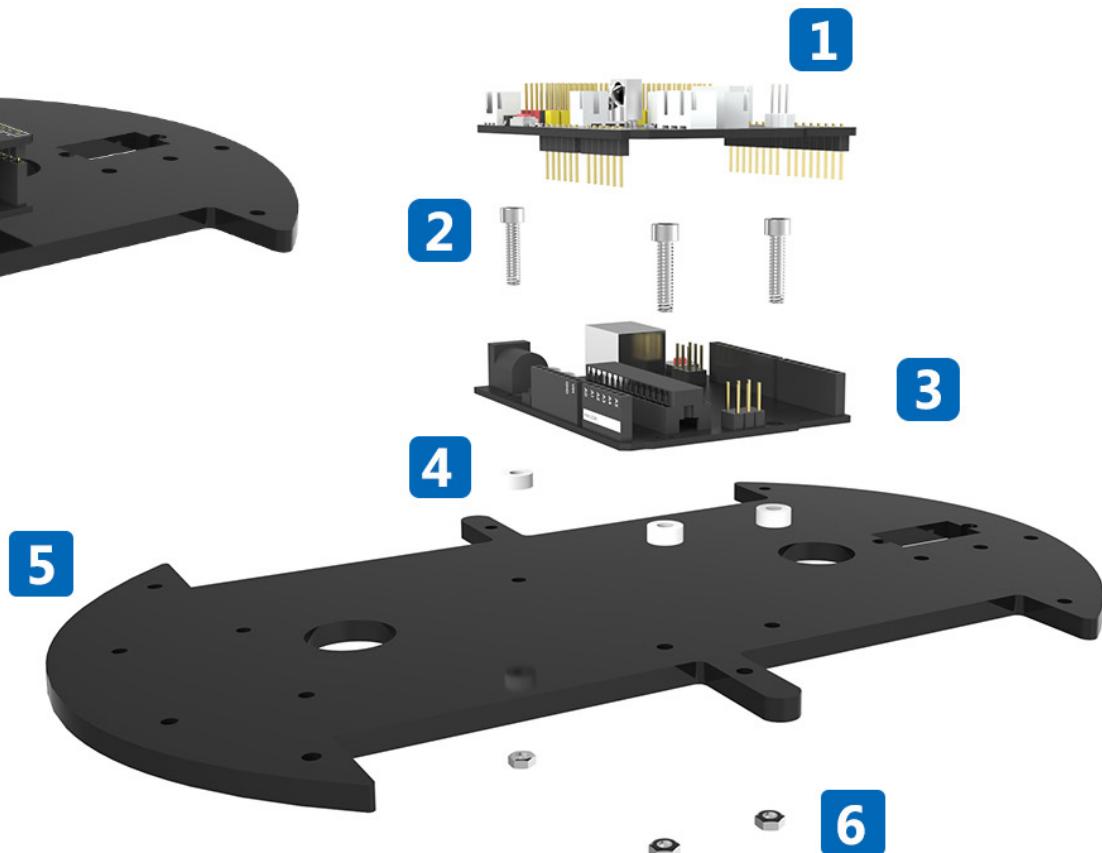


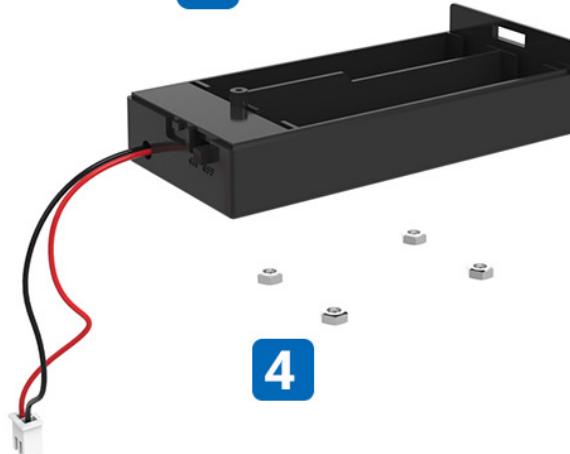
Pay attention to the front and back side of the acrylic chassis when assembling



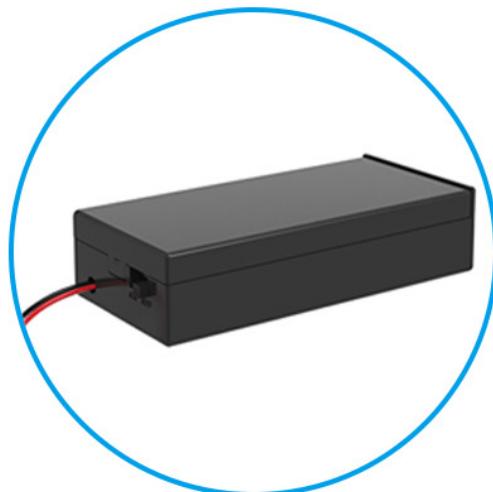
- 1** 1×IO expansion board
- 2** 3× M3\*14 hexagon socket screws
- 3** 1×UNO R3 core board
- 4** 3×separation shim
- 5** 1×Acrylic Chassis
- 6** 3× M3 nuts

Take out **2** **4** **6** from the bag with label "FOR UNO、L298N"





3



1 2×18650 Batteries

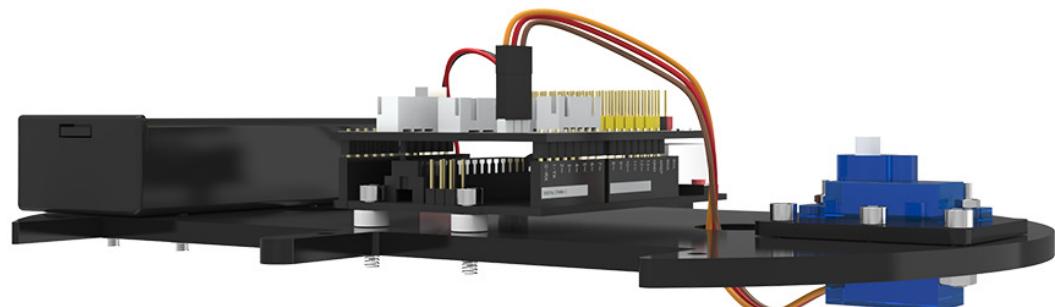
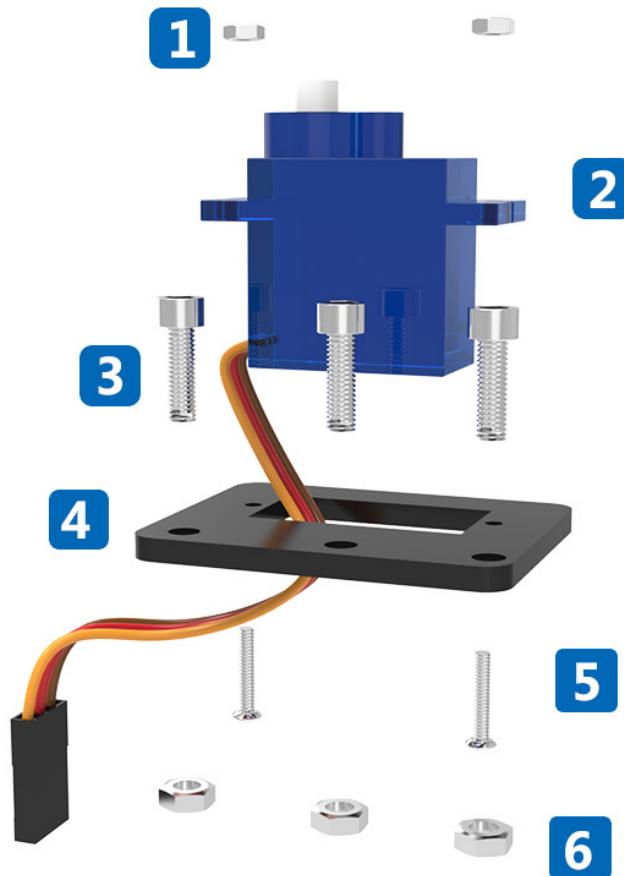
2 4×M3\*10Cross screw

3 1×Battery compartment

4 4×M3 nuts

Take out 2 4 from the bag with label "FOR CELL BOX"

Please fully charge the 18650 Lithium batteries before using them.



1 2×M2 nuts

2 1×SG90 Micro Servo

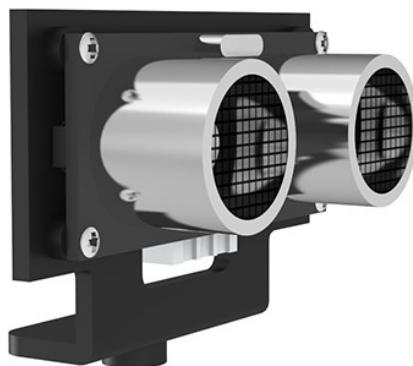
3 3×M3\*10 hexagon socket screws

4 1×Dead plate

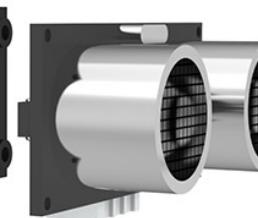
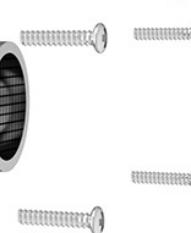
5 2×M2\*10 Cross screw

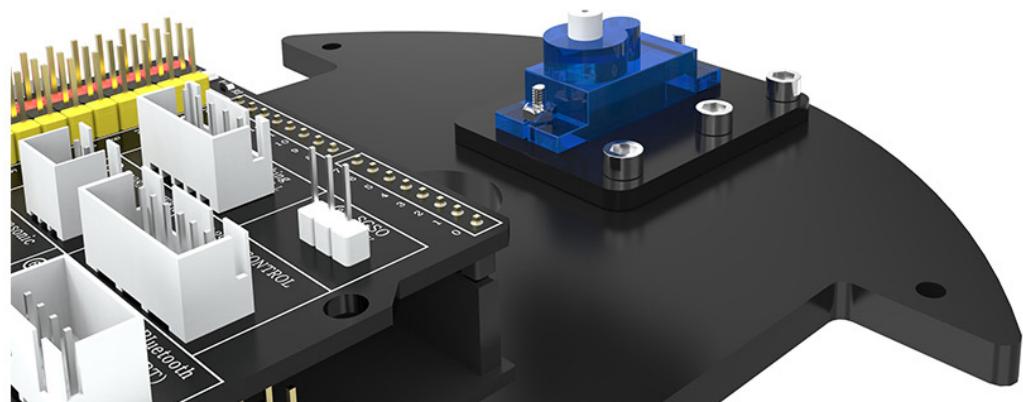
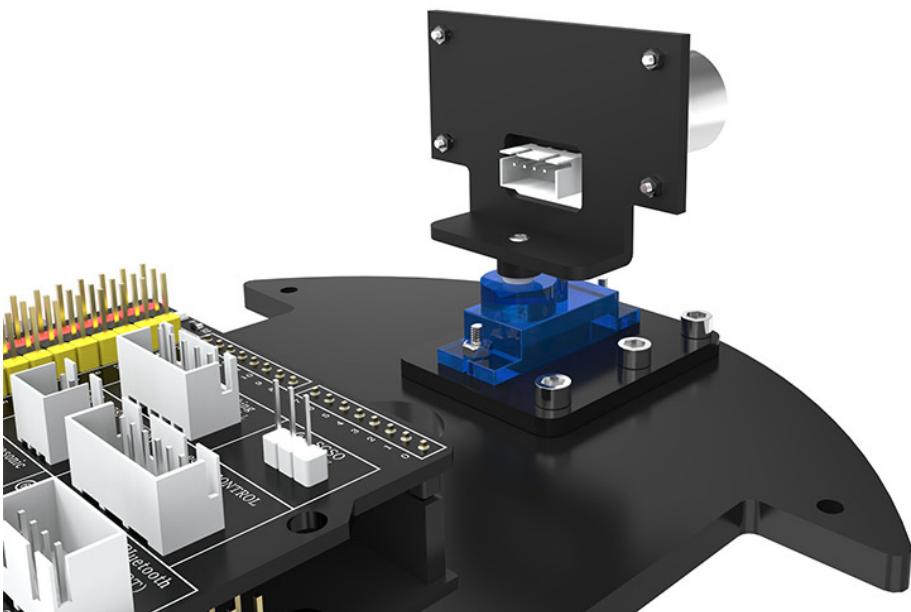
6 3× M3 nuts

Take out 1 3 5 6 from the bag with label "FOR ULTRASONIC "

**1**

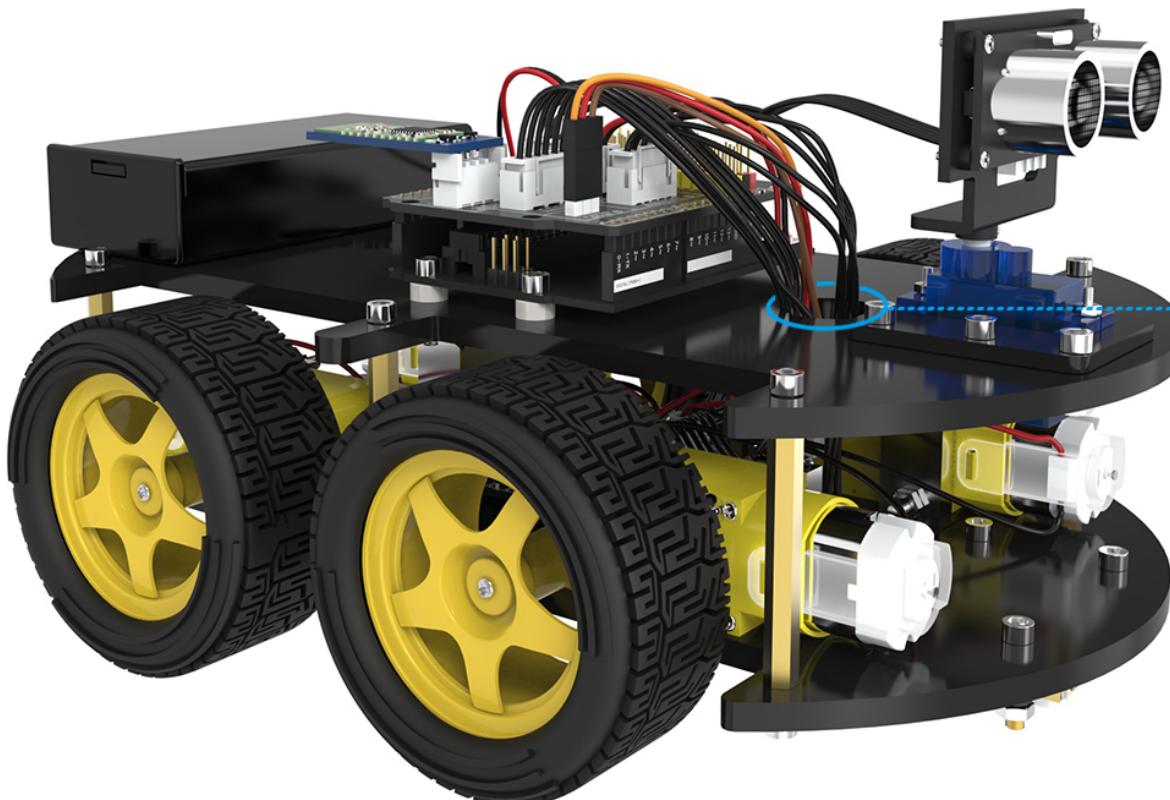
4×M1.6 nuts

**2****3****4****1** 4×M1.6 nuts**2** 1×Ultrasonic sensor module holder**3** 1×Ultrasonic sensor module**4** 4×M1.6\*8 Cross screwTake out **1** **4** from the bag with label "FOR ULTRASONIC"



**1** 1×M2\*4 self-tapping screws

Take out **1** from the bag with label "FOR SG90 MICRO SERVO"

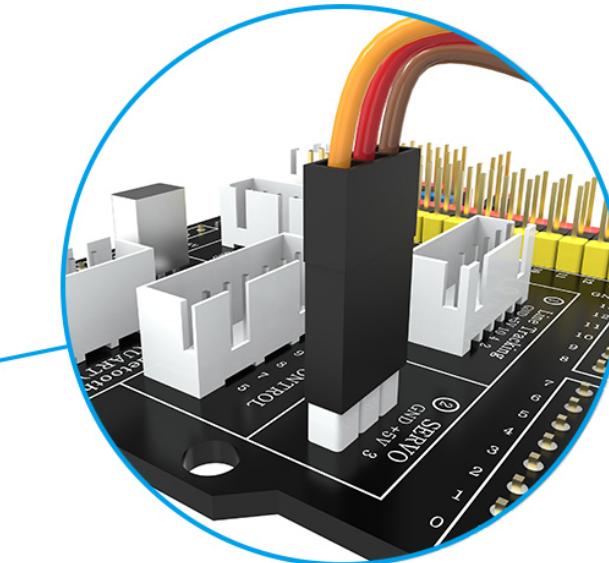
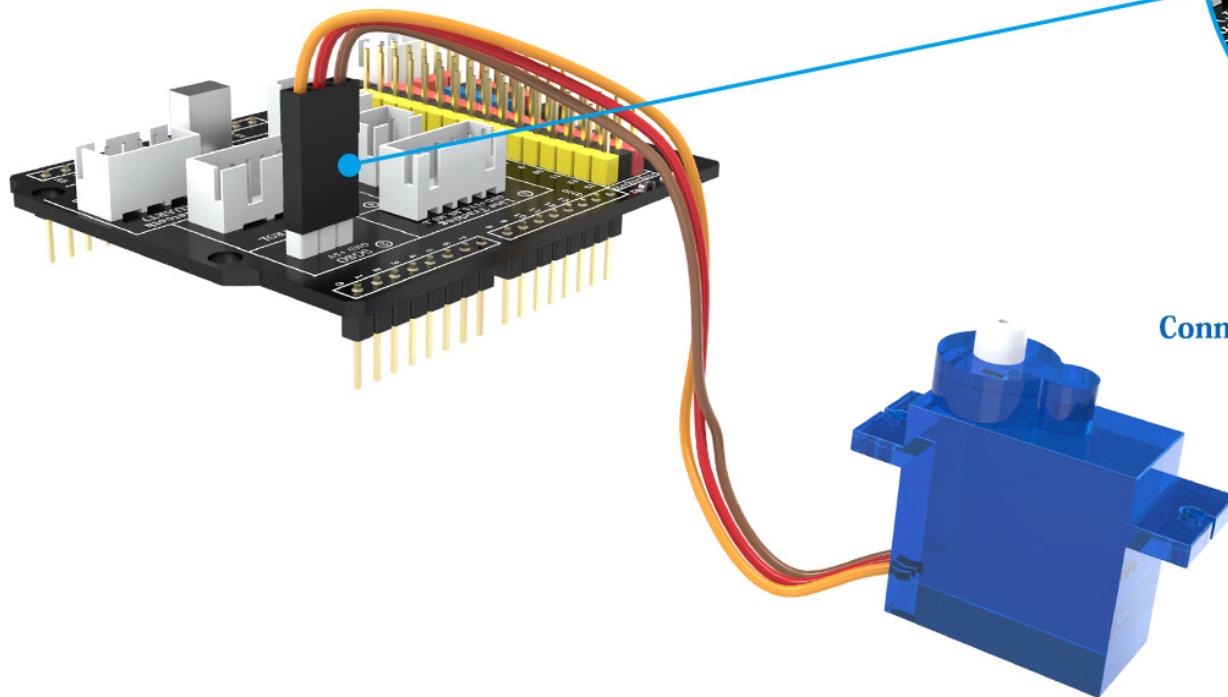


micro servo 3P cable  
L298N 6P cable  
L298N 2P cable  
line-tracking module 5P cable

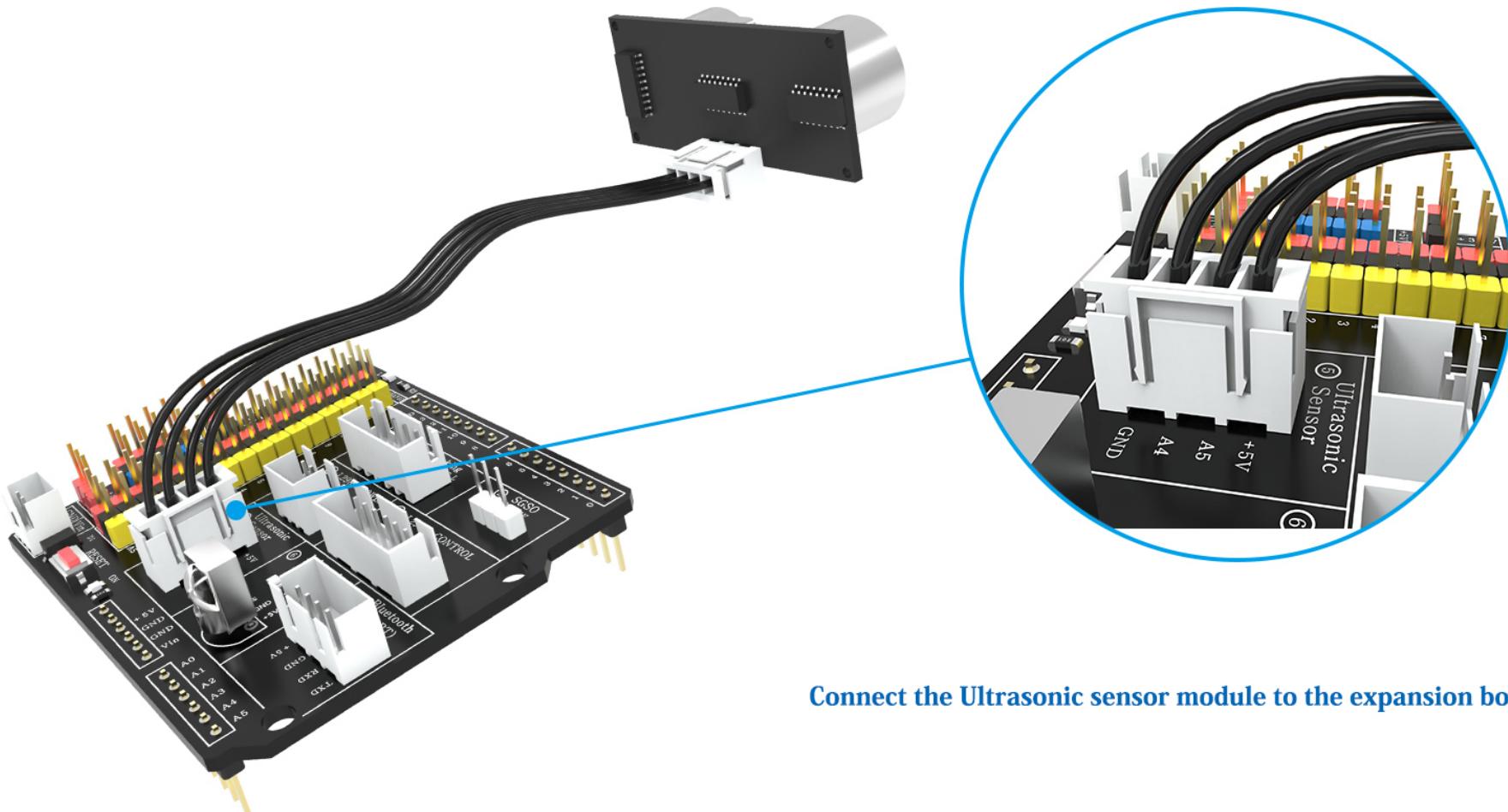
Attention: In the next wiring procedures,  
Some of the cables need to go through this hole



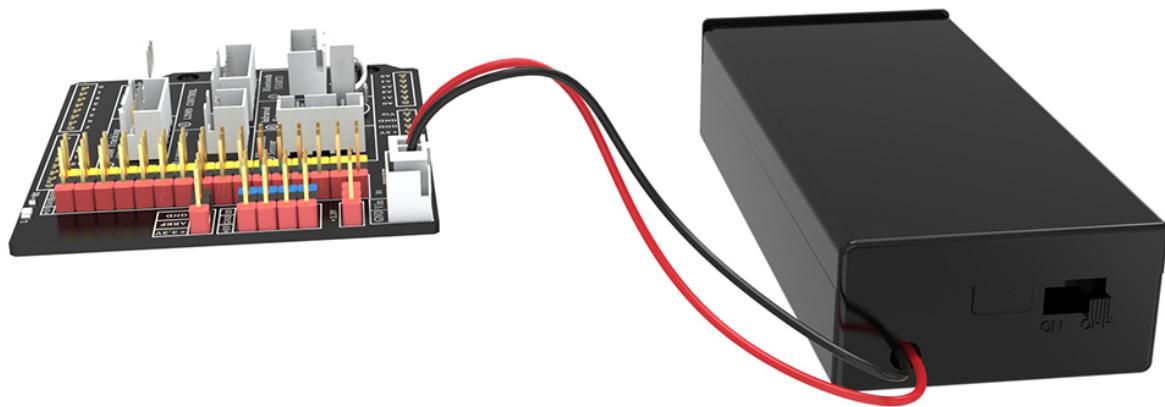
Attention :The wiring diagram is only to show the wiring of the corresponding module in the picture.



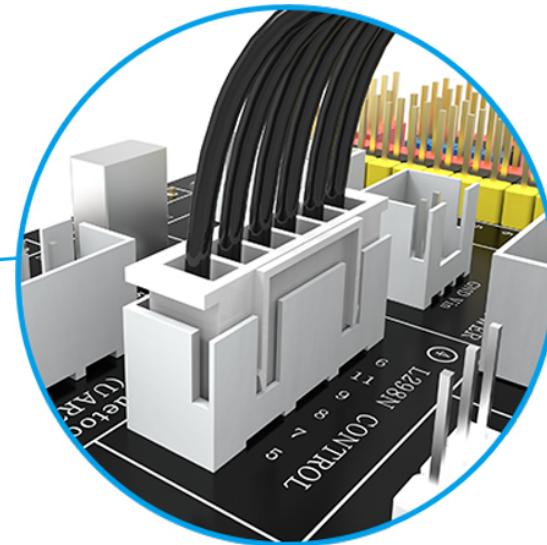
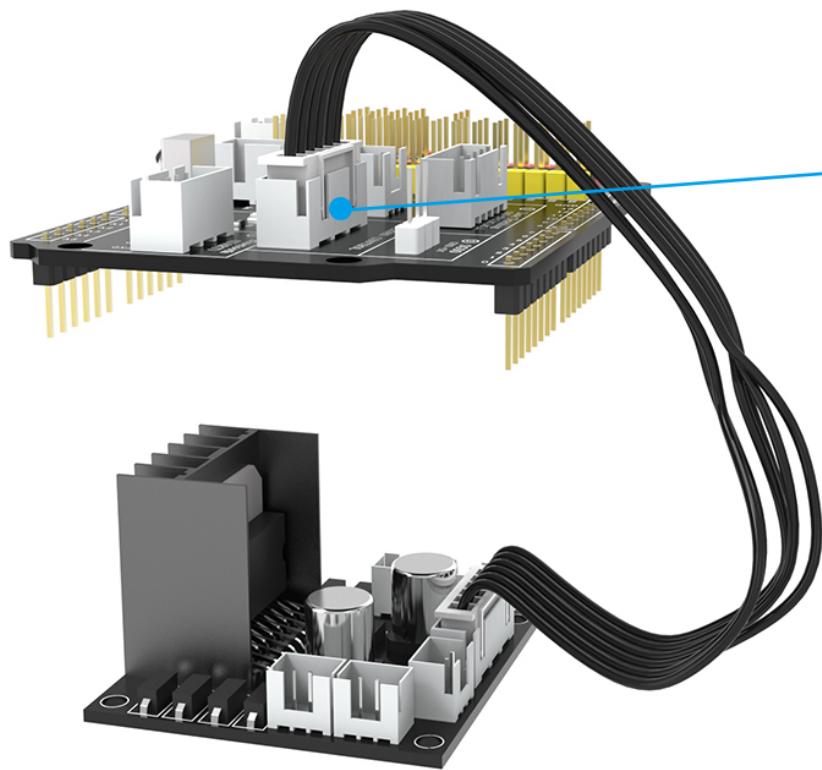
Connect the Micro servo to the expansion board



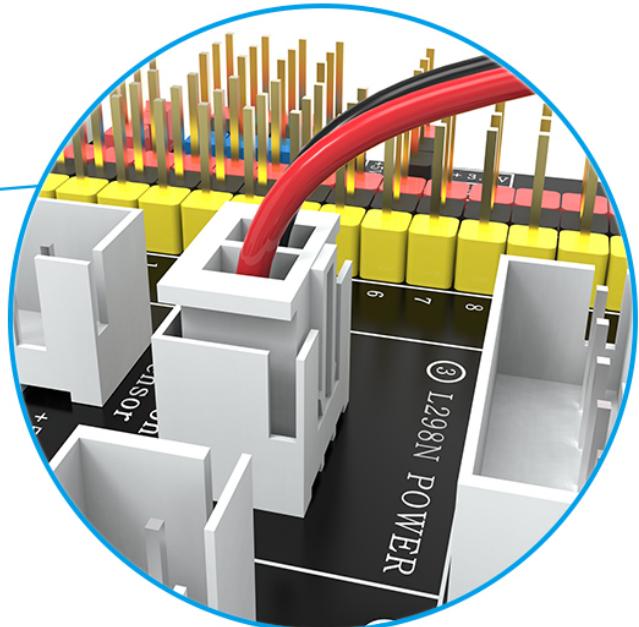
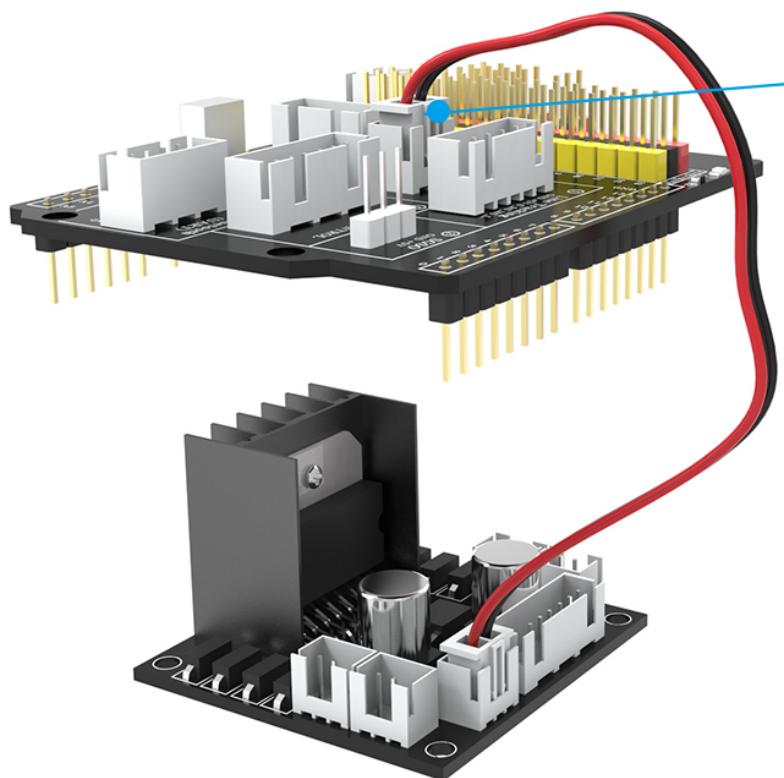
Connect the Ultrasonic sensor module to the expansion board



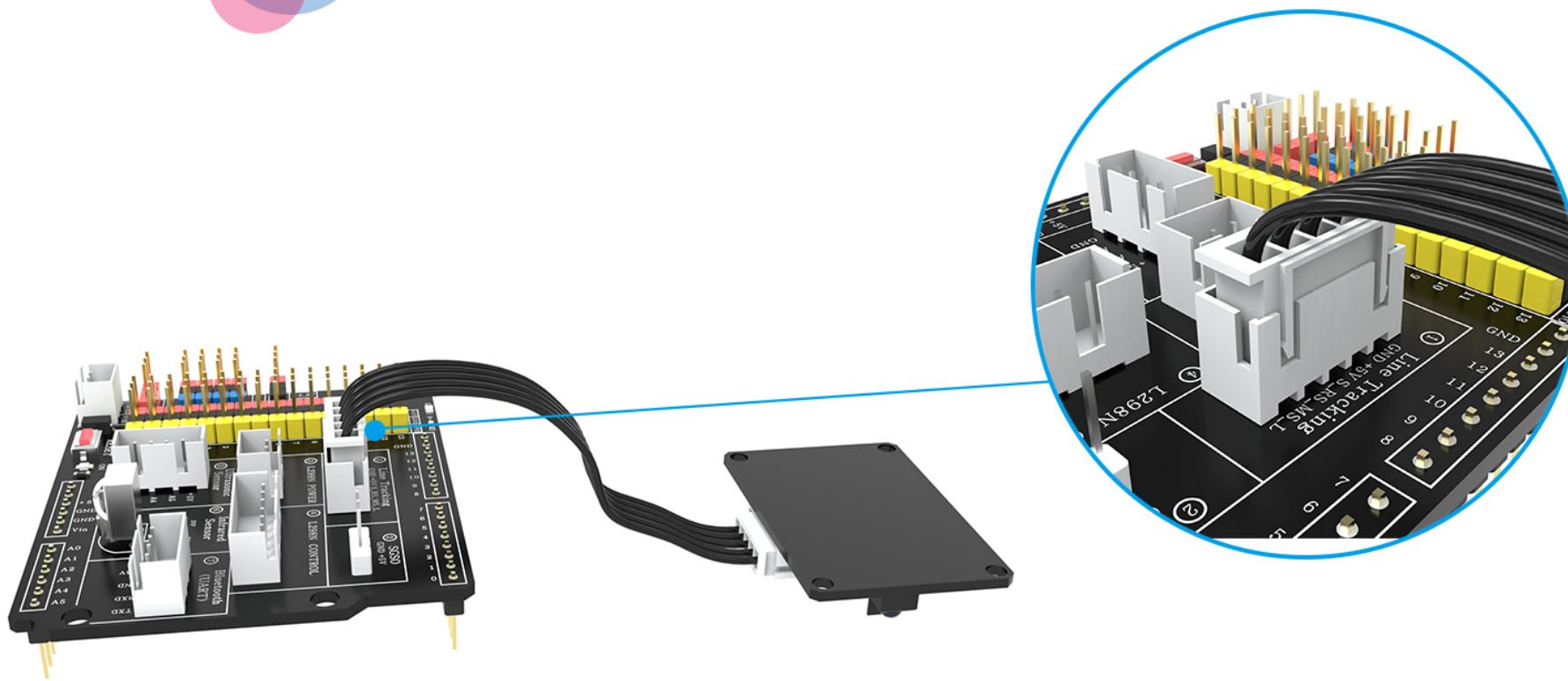
**Connect the battery compartment to the expansion board.**



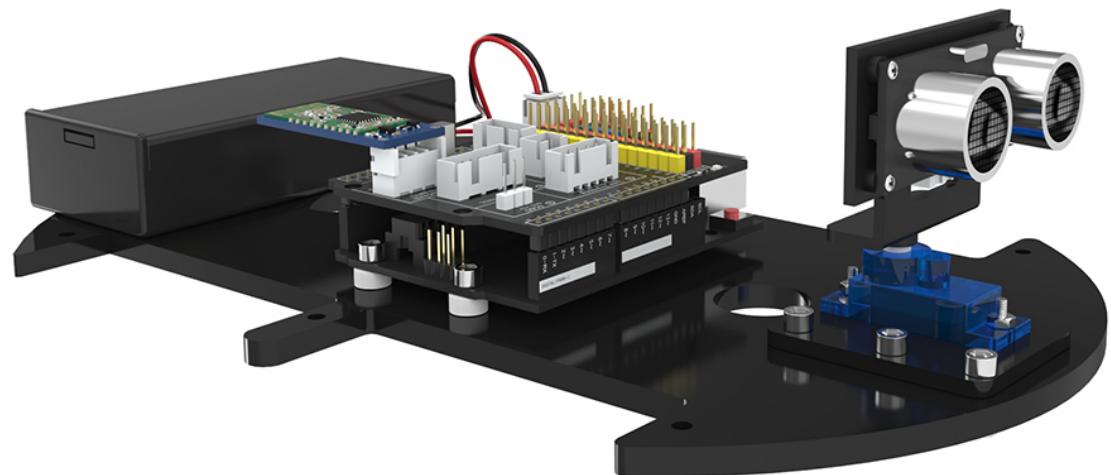
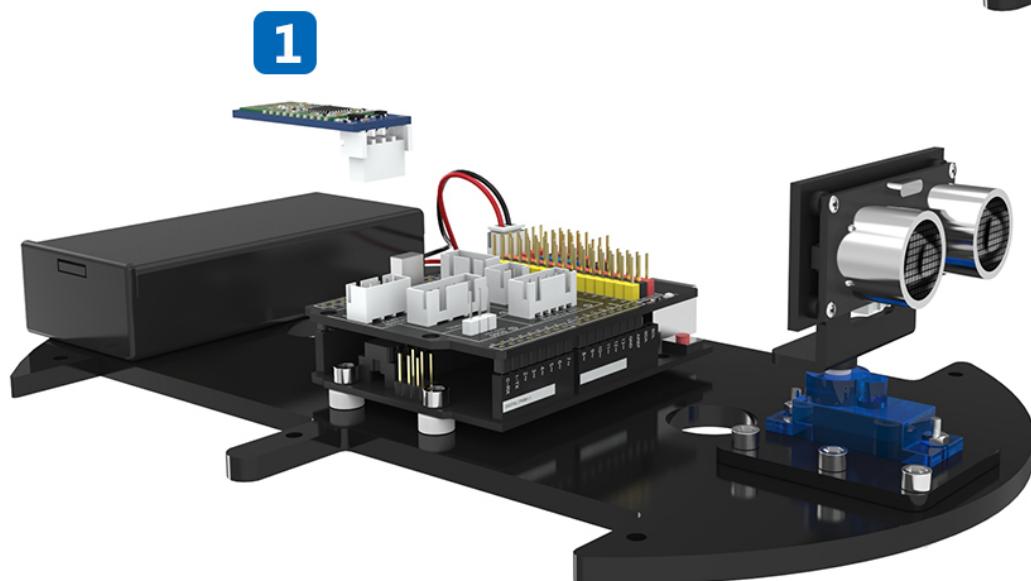
Connect the L298N to the expansion board.



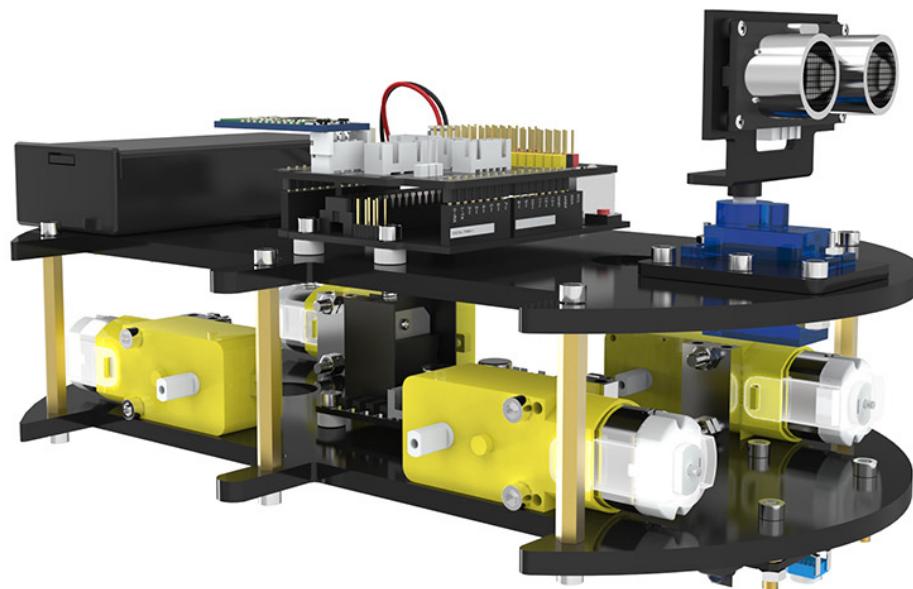
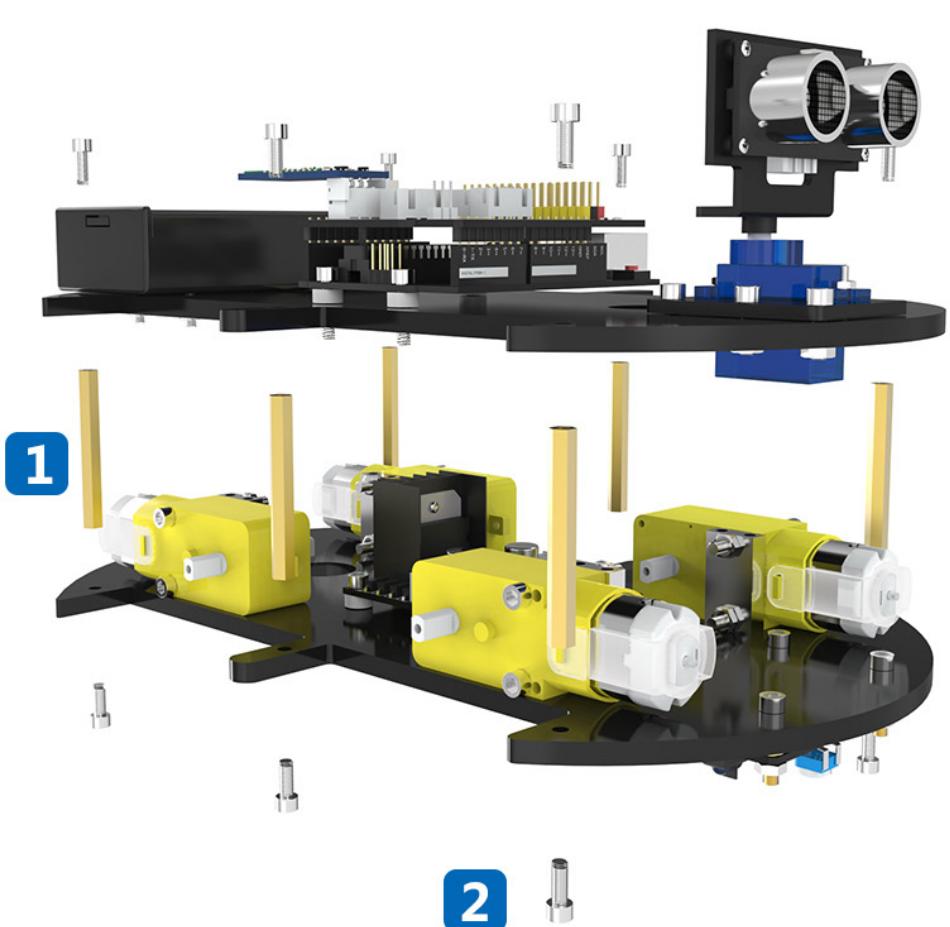
Connect the L298N to the expansion board.



Connect the line tracking module to the expansion board.



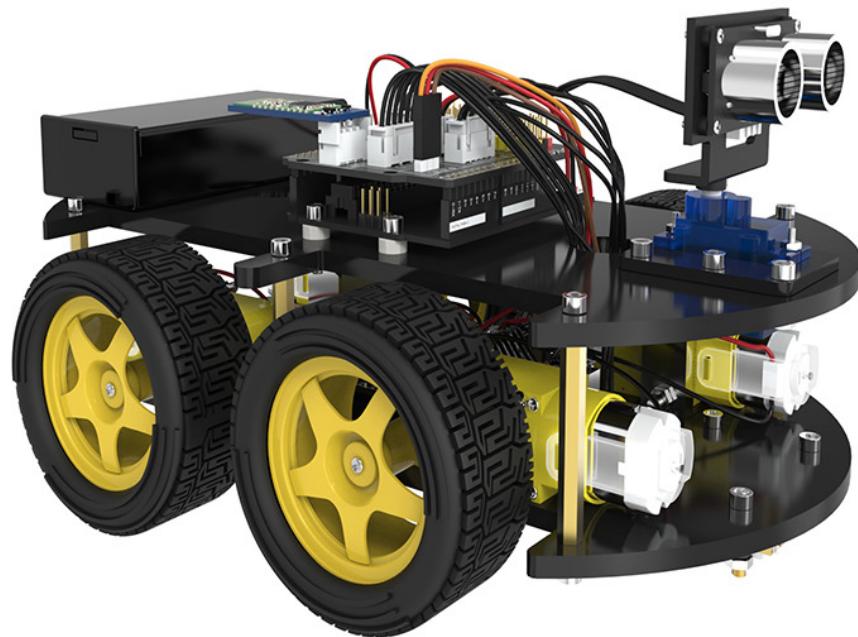
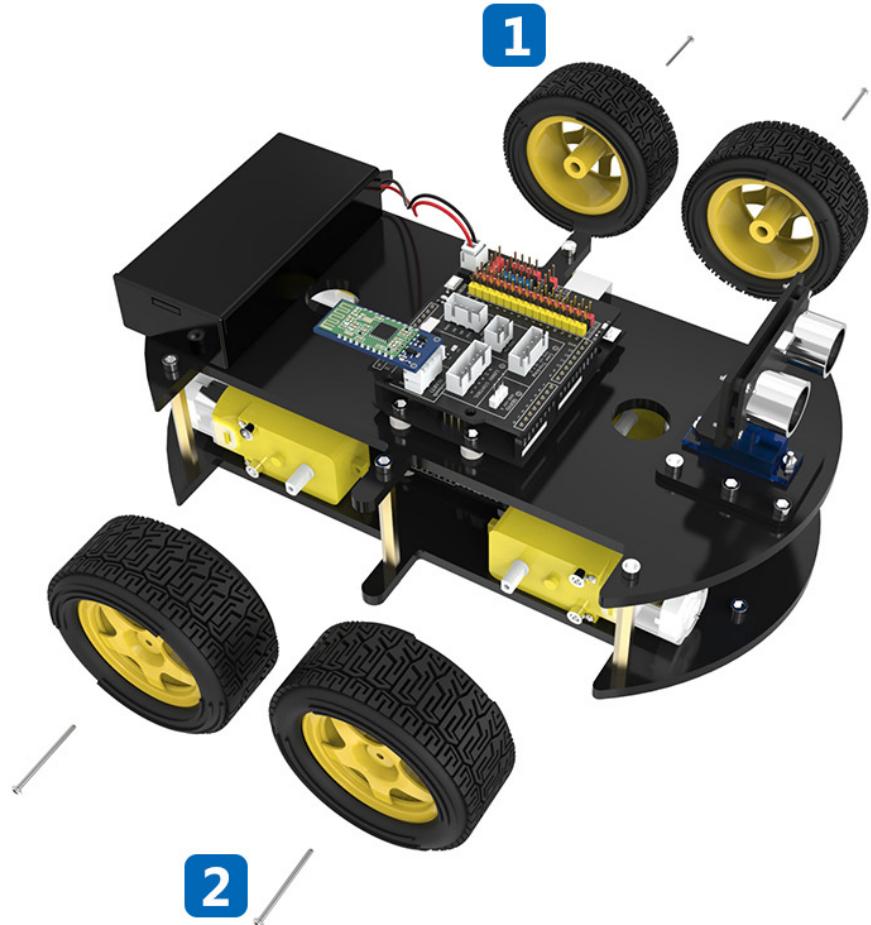
**1** 1 × Bluetooth module



**1** 6×M3\*40 double-pass copper cylinder

**2** 12×M3\*10 hexagon socket screws

Take out **1** **2** from the bag with label "FOR ACRYLIC BASEPLATE"



**1** 4×Tires

**2** 4×M2\*25 Cross screw

Take out **2** from the bag with label "FOR TIRES"

# Summary

This tutorial is aimed at making it easier to assemble the car and if you find any problems or have any suggestions for the tutorial or the robot car please feel free to send us an email at [service@elegoo.com](mailto:service@elegoo.com) (US and CA customers) or [EUservice@elegoo.com](mailto:EUservice@elegoo.com) Europe customers).

After assembling and connecting all the components, we need to debug some basic programs of the car, which we will learn in the next lesson.