

Youfang Robot Ackerman Chassis



For more detailed installation videos, please check the link of station B:

[https://www.bilibili.com/video/BV1gg41157ef?from=search&seid=11823924475348659039&sp
m_id from=333.337.0.0](https://www.bilibili.com/video/BV1gg41157ef?from=search&seid=11823924475348659039&spm_id_from=333.337.0.0)

You can also directly search for keywords at Station B: Youfang Robot Ackerman Chassis Installation Instructions (有方机器人阿克曼底盘安装说明)



Preface:

Dear customer, the installation problem has been considered in the initial design. In order to make the installation easier and faster for users, we roughly divide this chassis into two modules, the front and the rear. You only need to consider them separately during the installation process. The splicing and fixing method of this chassis is mainly based on screws. A nut is placed in one part, and the screw passes through the screw hole of the other part. Be sure to pay attention to the direction when placing the nut, otherwise it is very likely that it will not fit in. If two thick boards are spliced, use 10mm long screws, and if two thin boards are spliced, use 8mm short screws.

This Ackerman chassis has a large carrying space and flexible steering. The whole body parts are made of fiberglass board, which is durable. Hope this chassis can help you.

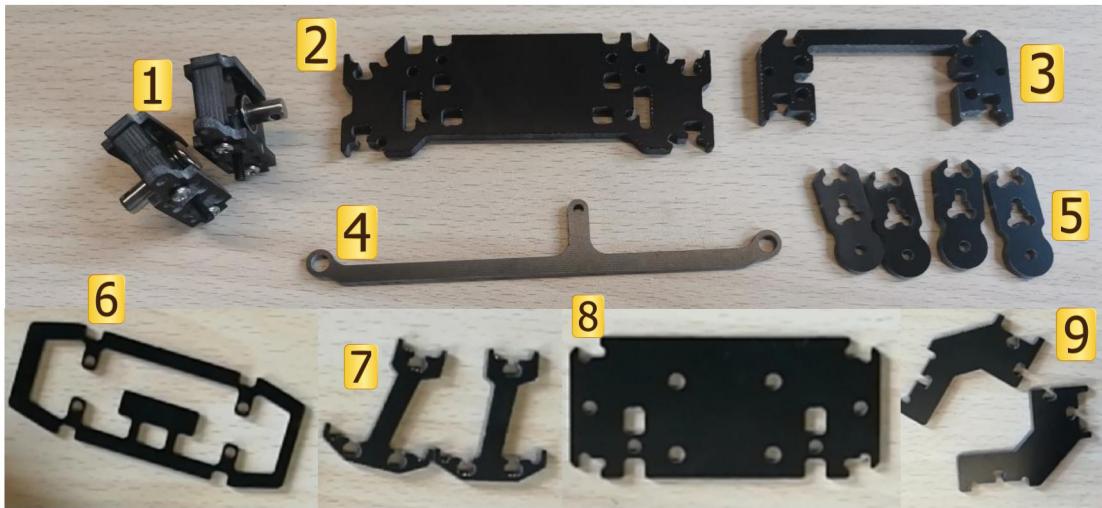
Prepare the materials as shown in the figure



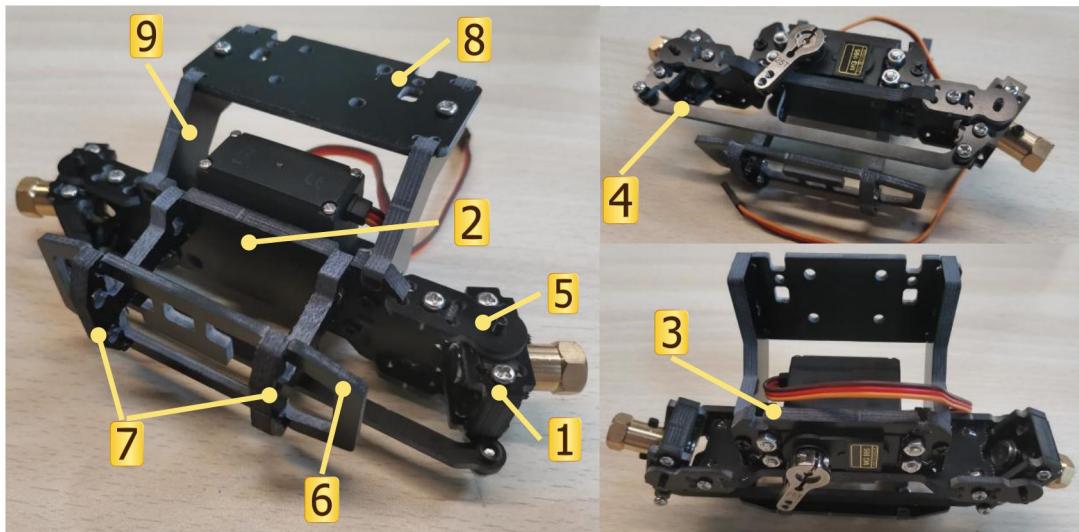
The flange bearings are stuck on both sides of the part, and the pins pass through the middle. Note that the direction of the pins is just opposite.

| Components | quantity |
|---------------------|----------|
| screw M3*8 (silver) | 8 |
| screw M3*10 (black) | 4 |
| nut M3 | 8 |

Prepare the materials as shown in the figure



如上图所示，左上角的零件代号为【1】，后面零件依次为对应数字【2】【3】【4】....

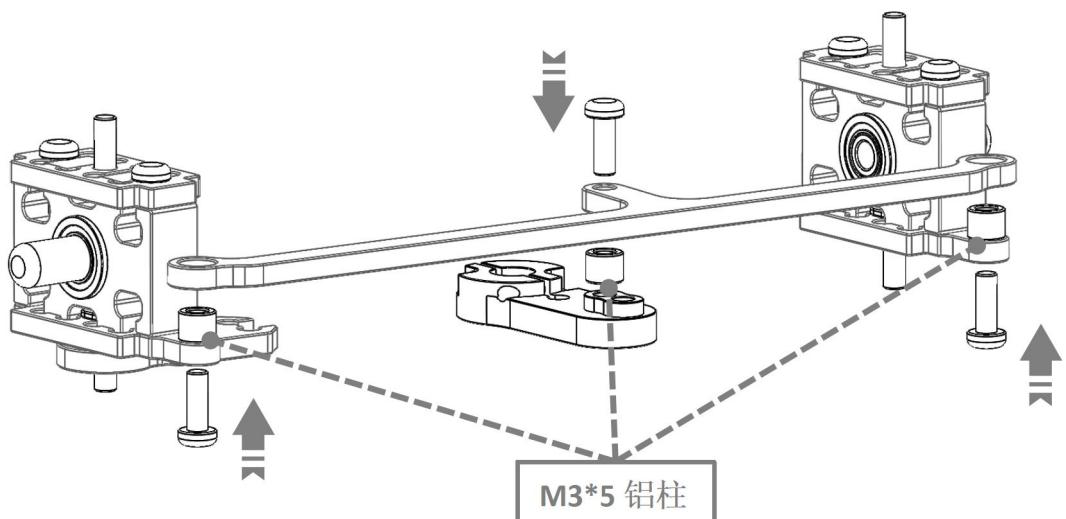
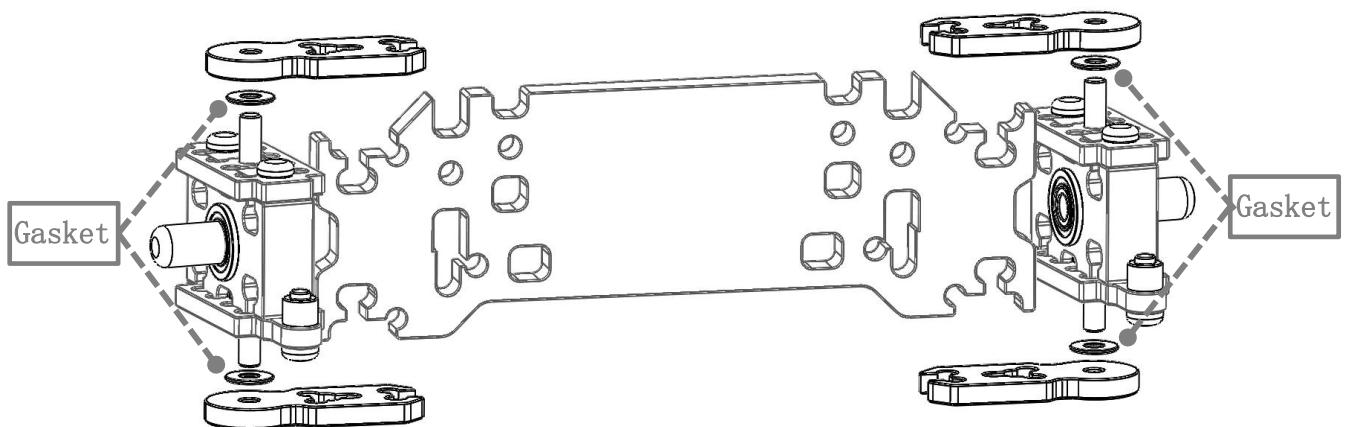


Assembly order:

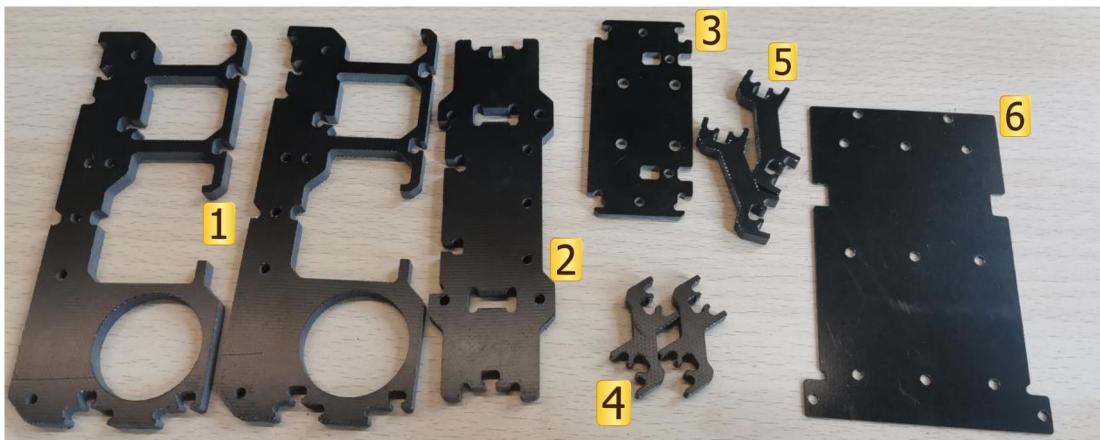
- A: Fix the coupling on [1] through the top screw, and try to let the coupling clamp the bearing on [1] when fixing.
- B: Put a round washer on the M3*10 screw of [1], and then connect [1] and [2] through [5];
- C: Use [4] to shake [1] and the servo the arms are connected;
- E: First connect [7] and [6], then fix [7] and [2];
- F: [9] and [2] are fixed, and then [8] is installed on [9].

| Components | Quantity | Place | Components | Quantity | Place |
|---------------------|----------|------------------------------------|----------------------------|----------|---|
| screw M3*10 (black) | 6+2+1 | [2], [3], steering gear rocker arm | screw M3*8 (silver) | 2+4+4+2 | 【1】、【5】、【6】、【8】 |
| nut M3 | 4+2+6+6 | 【2】、【3】、【7】、【9】 | black aluminum column M3*5 | 3 | steering gear arm, 【4】 & steering gear rocker arm |
| screw M4*12 | 4 | steering gear | Servo Rocker | 1 | steering gear |
| nut M4 | 4 | 【3】 | steering gear | 1 | 【3】 |
| Gasket | 4 | 【1】 & 【5】 | Coupling | 2 | 【1】 |
| Allen Key | 1 | Servo rocker screw | Top wire | 2 | Coupling |

Supplementary details:



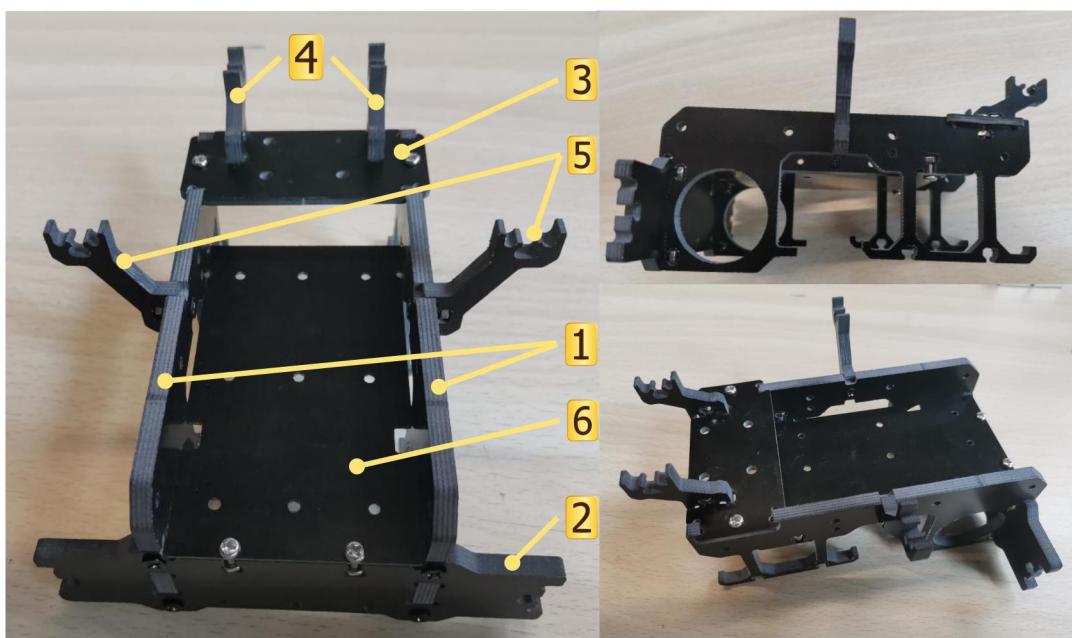
Prepare the materials as shown in the figure



如上图所示，左上角的零件代号为【1】，后面零件依次为对应数字【2】【3】【4】....

Assembly order:

- Based on [2], fix two [1] on [2];
- Use [3] to connect two [1] together;
- Install [5] on [1], and install [4] on [3];
- Part [6], the protruding end is fixed with [1], and the other end is fixed with [2];



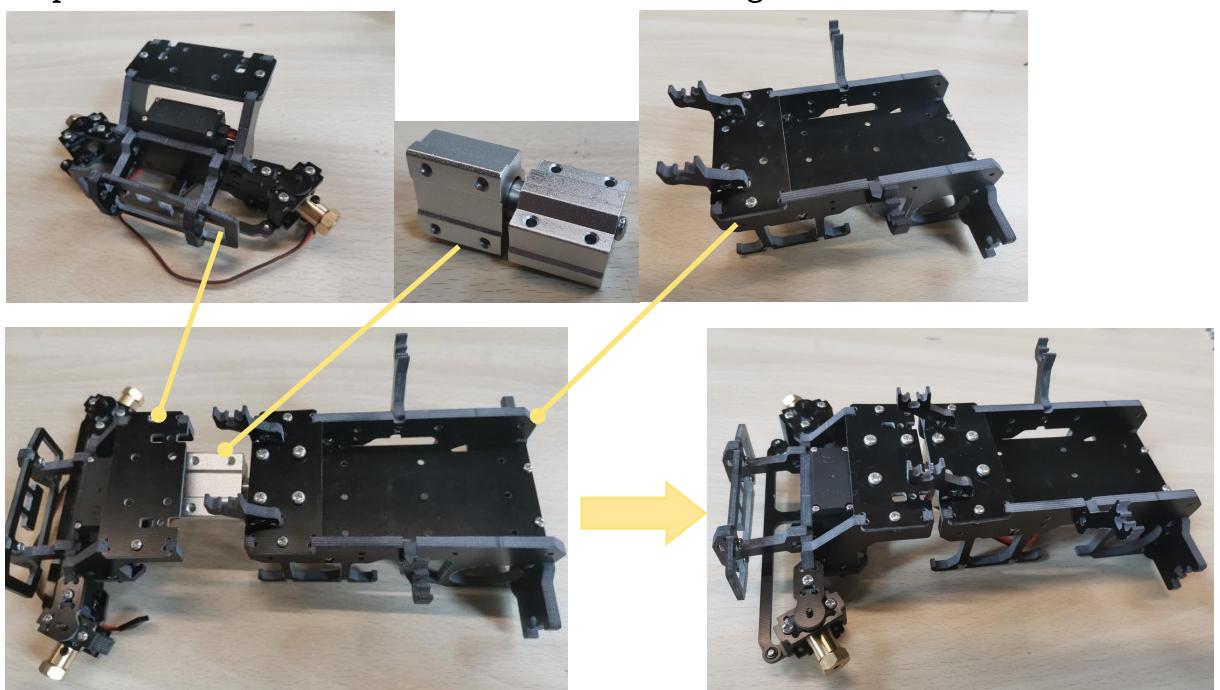
| Components | Quantity | Location |
|---------------------|----------|-----------------|
| screw M3*10 (black) | 4+2 | 【2】、【1】 |
| screw M3*8 (silver) | 4+4 | 【3】、【6】 |
| nut M3 | 2+8+2+2 | 【2】、【1】、【4】、【5】 |

Prepare materials as shown in the picture (all in a bag)



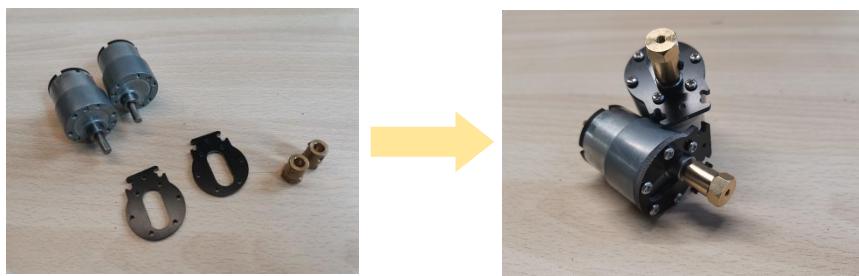
| Components | Quantity |
|---------------------|----------|
| screw M4*8 (silver) | 2 |

Prepare the materials as shown in the figure



| Components | Quantity | Location |
|---------------------|----------|--------------------------|
| screw M4*8 (silver) | 4+4 | first half + second half |

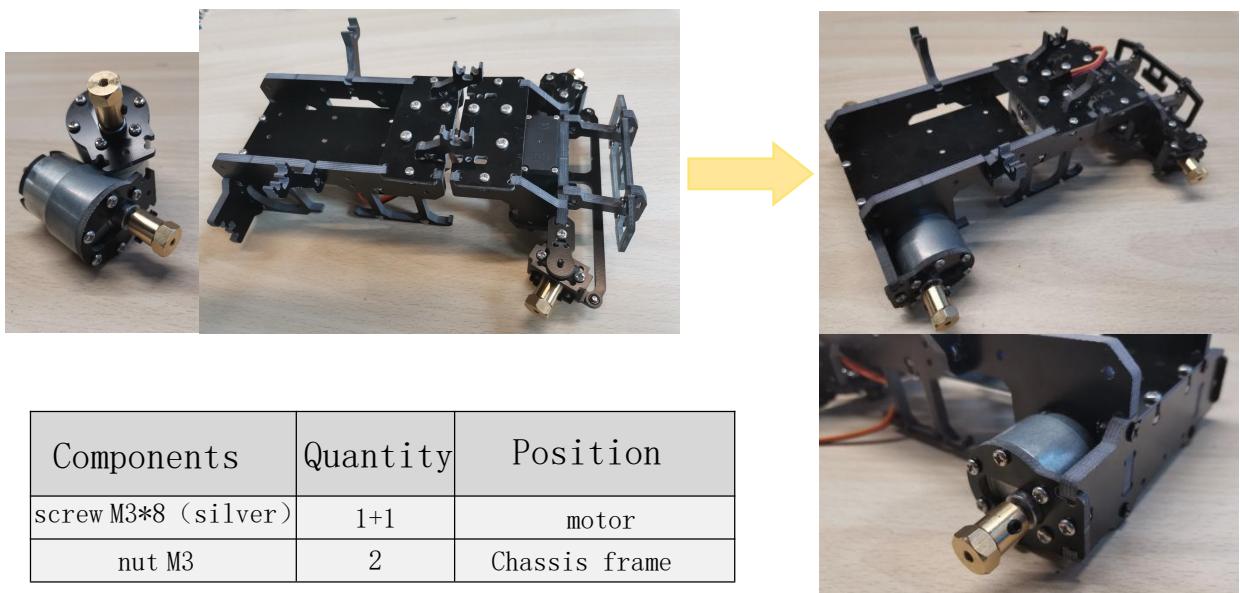
Prepare the materials as shown in the figure



| Components | Quantity | Position |
|---------------------|----------|------------------------|
| screw M3*8 (silver) | 6+6 | Black Fiberglass Parts |
| Brass Coupling | 2 | motor |
| black top wire | 2 | Brass Coupling |
| allen key | 1 | for fixing coupling |

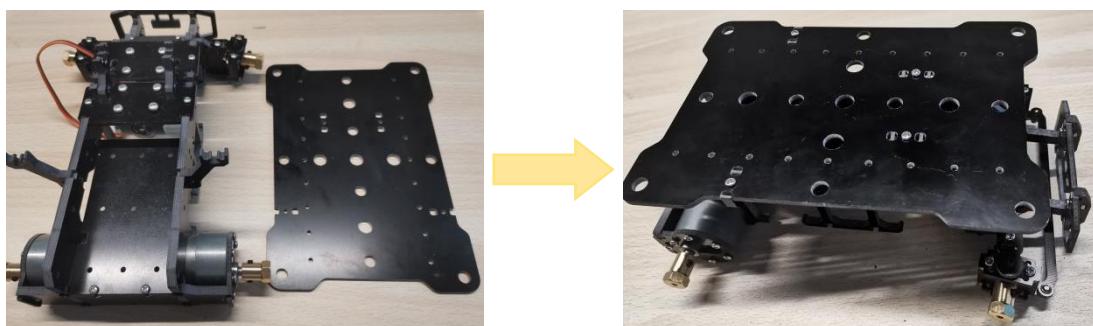
【Note】: The coupling is fixed on the motor through the top screw, and the top screw needs to be fixed on the flat end of the motor output shaft to be effective.

Prepare the materials as shown in the figure



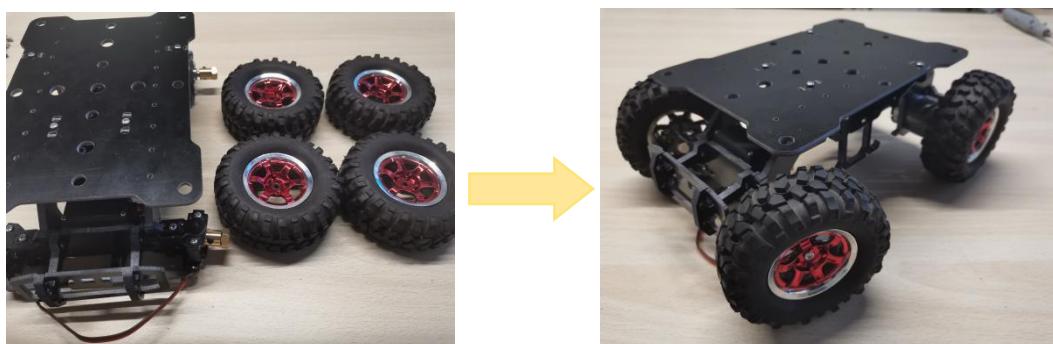
| Components | Quantity | Position |
|---------------------|----------|---------------|
| screw M3*8 (silver) | 1+1 | motor |
| nut M3 | 2 | Chassis frame |

Prepare the materials as shown in the figure



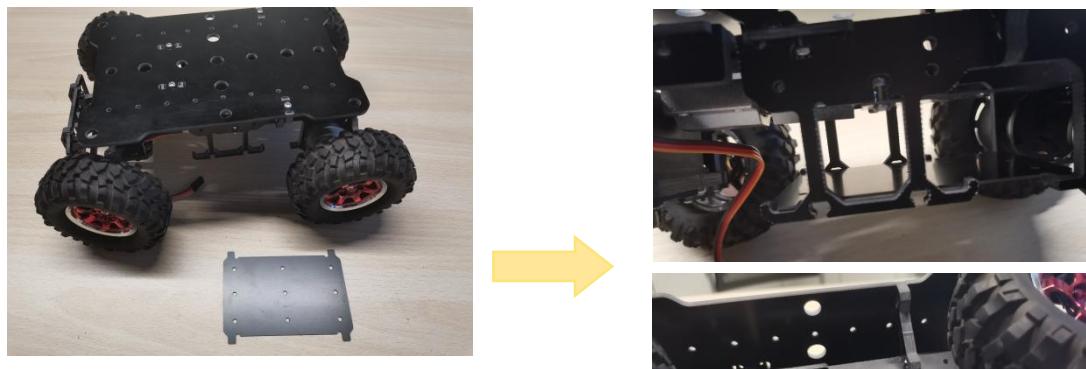
| Components | Quantity | Location |
|---------------------|----------|------------------|
| screw M3*8 (silver) | 4 | large flat plate |
| nut M3 | 4 | Chassis frame |

Prepare the materials as shown in the figure



| Components | Quantity | Location |
|------------|----------|--------------|
| screw M4*8 | 4 | rubber wheel |

Prepare the materials as shown in the figure



[Note] The battery compartment only needs to be placed under the chassis as shown in the figure, and no screws are needed to fix it. This fixing method can ensure stability and facilitate battery replacement at the same time.



