

WEEEMAKE



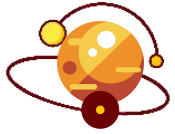
# Mars Rover Arduino Kit

— Coding & Robotics —

Assembly Guide

Weemake Education

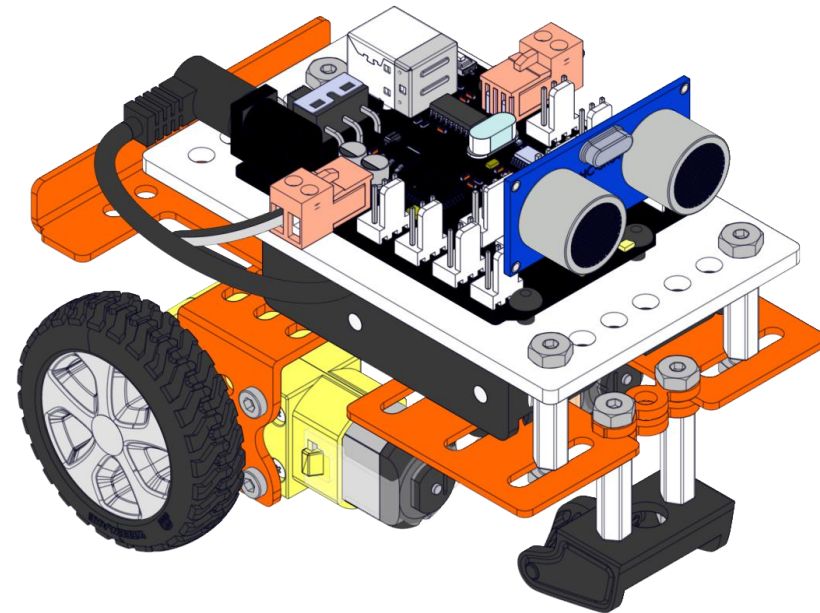
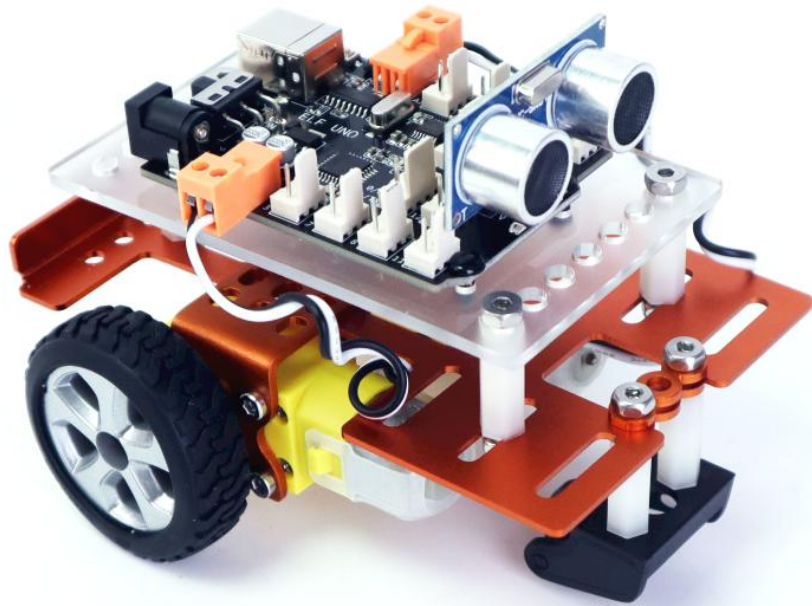


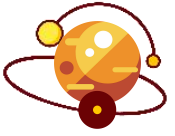


## Part List

|                     |     |                         |    |                       |    |
|---------------------|-----|-------------------------|----|-----------------------|----|
| Nut M4              | x16 | ELF Uno Mainboard       | x1 | Wheel                 | x2 |
| Nylon Locknut M4    | x4  | Ultrasonic Sensor       | x1 | Plastic Caster        | x1 |
| Screw M4*8          | x20 | Light Sensor            | x1 | TT Motor              | x2 |
| Screw M4*14         | x16 | Sound Sensor            | x1 | TT Motor Wire-20cm    | x2 |
| Screw M4*20         | x10 | Line-following Sensor B | x2 | Linkage 0208-24       | x2 |
| Screw M2*6          | x2  | Button Module           | x1 | Linkage 0208-88       | x1 |
| Screw M3*25         | x4  | Limit Switch            | x1 | Linkage 0208-200      | x1 |
| Nylon Spacer 4*7*3  | x12 | Single LED - Red        | x1 | Aluminum Chassis      | x1 |
| Nylon Stud M4*20    | x6  | Single LED - Green      | x1 | Acrylic Bracket       | x1 |
| Plastic Rivet R3090 | x4  | Single LED - Yellow     | x1 | Plate 3*4             | x2 |
| Velcro 20*40        | x1  | Buzzer                  | x1 | TT Motor Bracket      | x2 |
| M1.6-M4 Wrench      | x1  | USB-B Cable             | x1 | Bracket 3*3           | x2 |
| 2.5mm Hex Key       | x1  | 3Pin Cable              | x6 | Nylon Lock Hex Nut M3 | x4 |
| 4 AA Battery Holder | x1  | 4Pin Cable              | x2 | Electrical tape       | x1 |

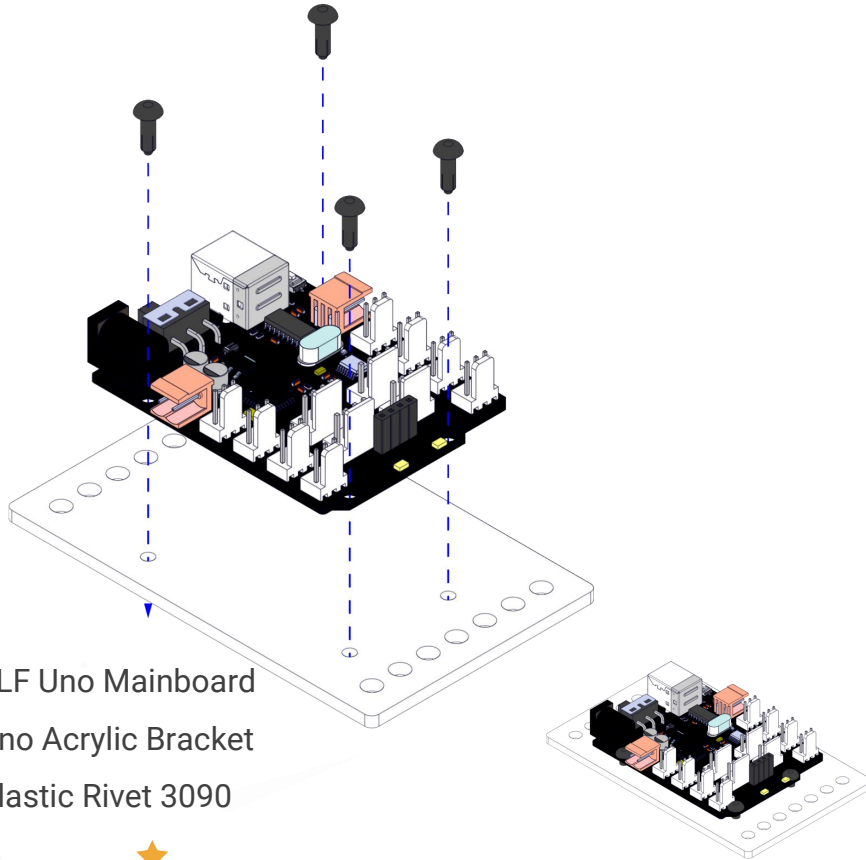
## Basic Form - Moving Robot





# Assembly Guide

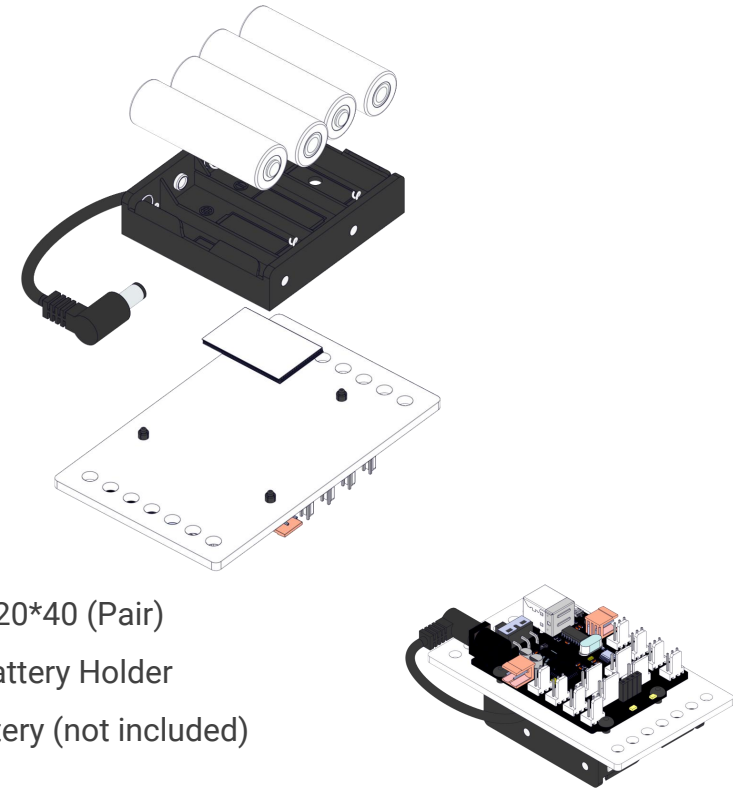
## 1. Install ELF Uno mainboard



Part:

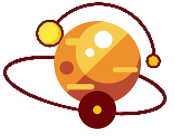
- 1 x ELF Uno Mainboard
- 1 x Uno Acrylic Bracket
- 4 x Plastic Rivet 3090

## 2. Install battery holder and battery



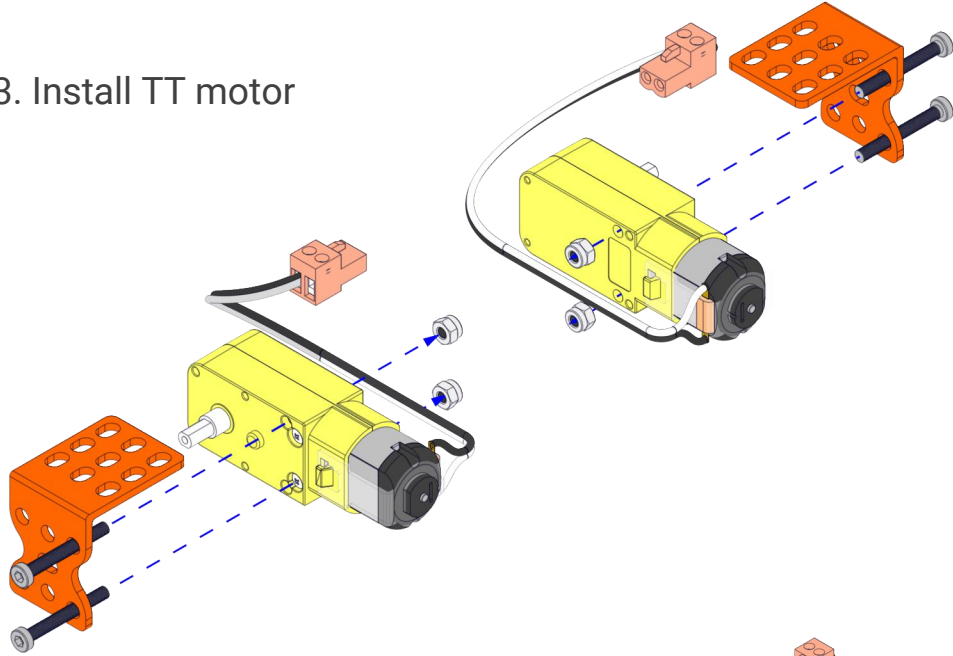
Part:

- 1 x Velcro 20\*40 (Pair)
- 1 x 4 AA Battery Holder
- 4 x AA Battery (not included)



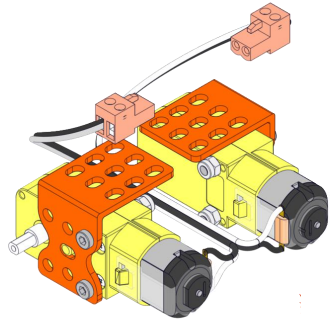
# Assembly Guide

## 3. Install TT motor

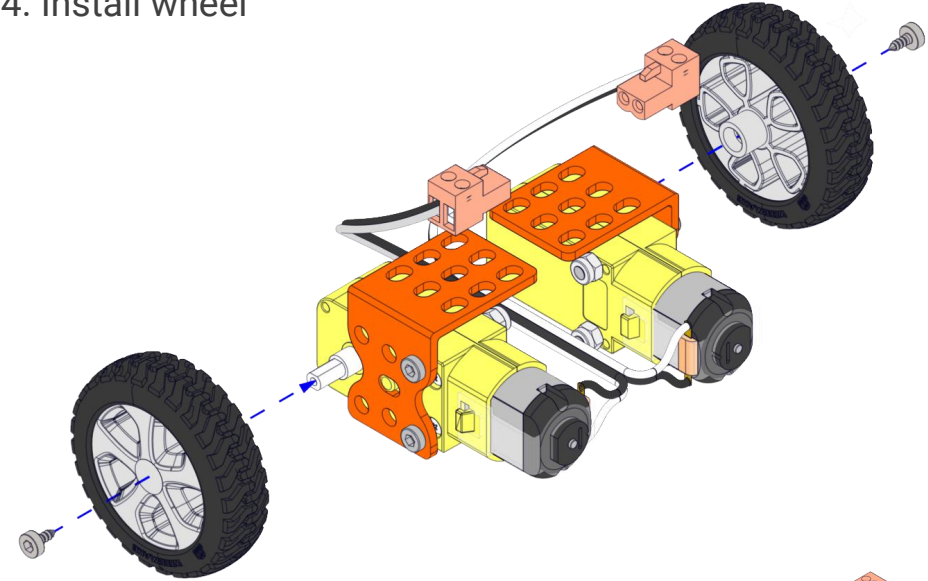


Part:

- 2 x TT Motor
- 2 x TT Motor Bracket
- 4 x Screw M3\*25
- 1 x Nylon Locknut M3

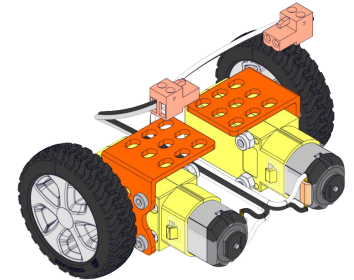


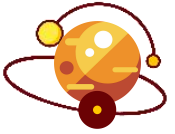
## 4. Install wheel



Part:

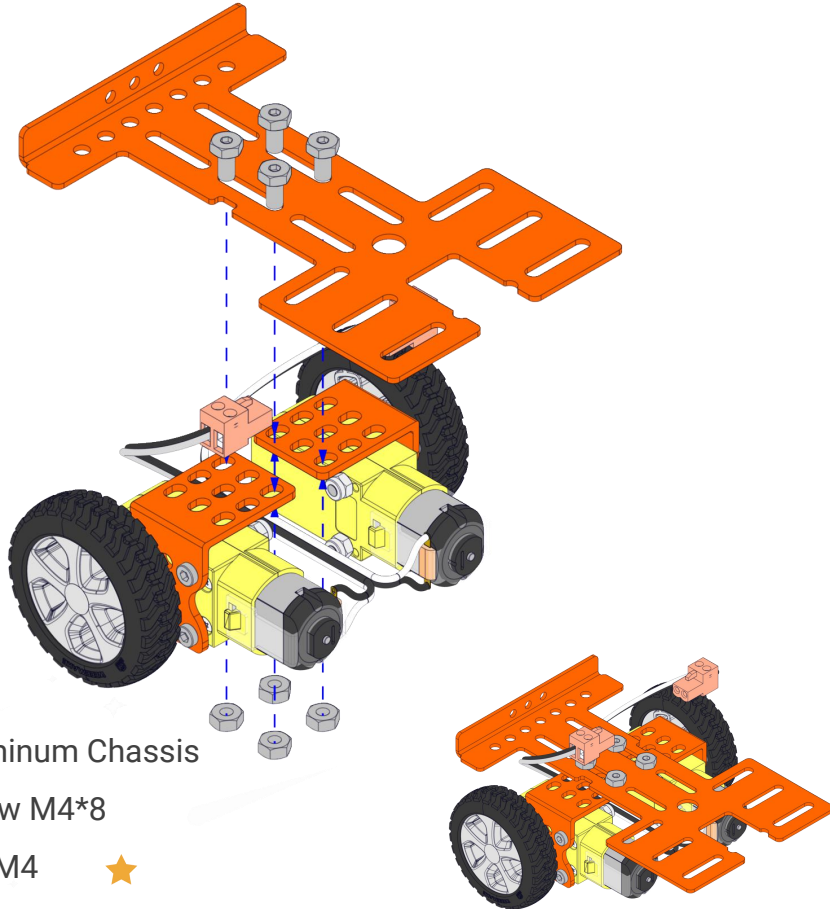
- 2 x Wheel
- 2 x Screw M2\*6





# Assembly Guide

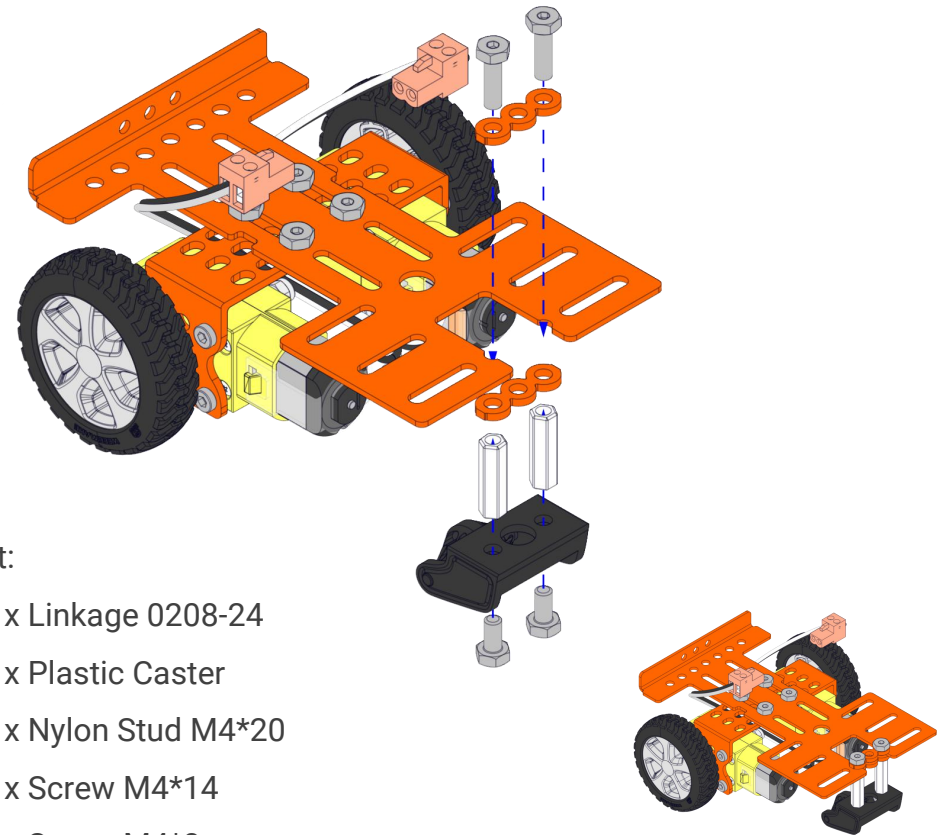
## 5. Install chassis



Part:

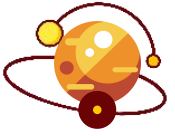
- 1 x Aluminum Chassis
- 4 x Screw M4\*8
- 4 x Nut M4

## 6. Install caster wheel



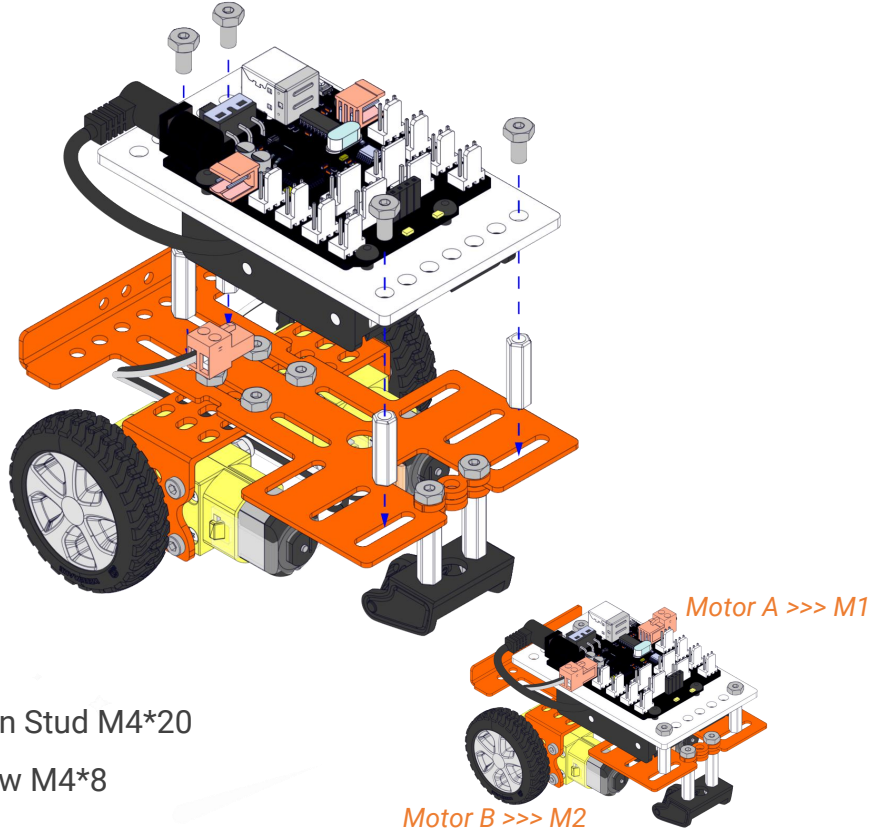
Part:

- 2 x Linkage 0208-24
- 1 x Plastic Caster
- 2 x Nylon Stud M4\*20
- 2 x Screw M4\*14
- 2 x Screw M4\*8

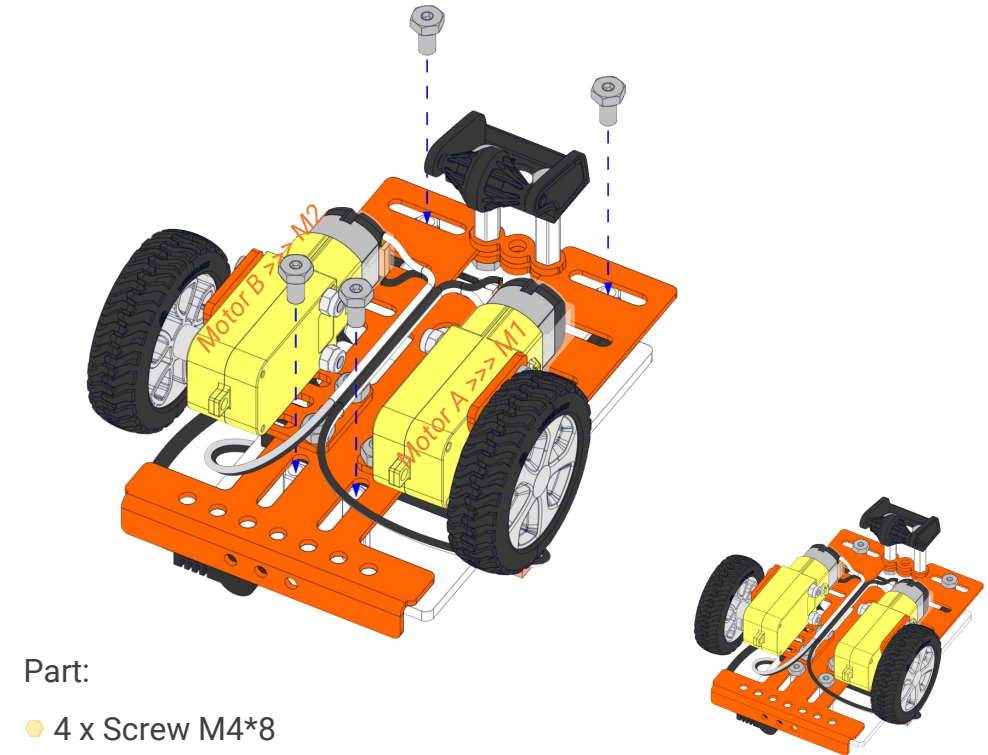


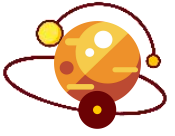
# Assembly Guide

## 7. Install ELF Uno assembly - A



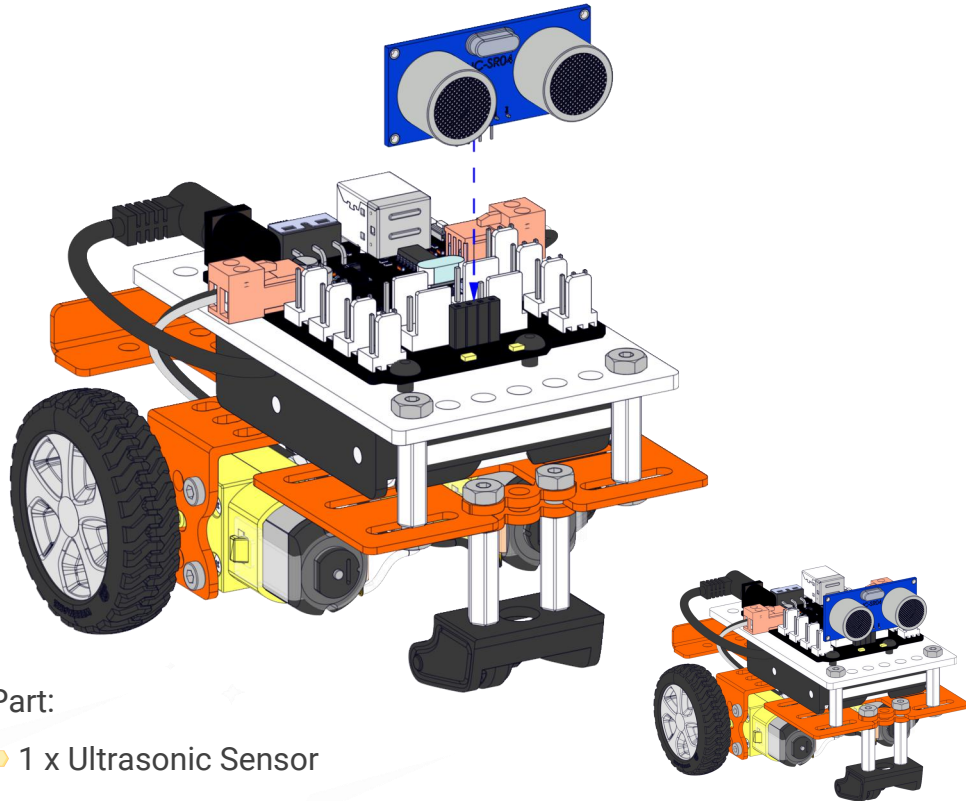
## 8. Install ELF Uno assembly - B





# Assembly Guide

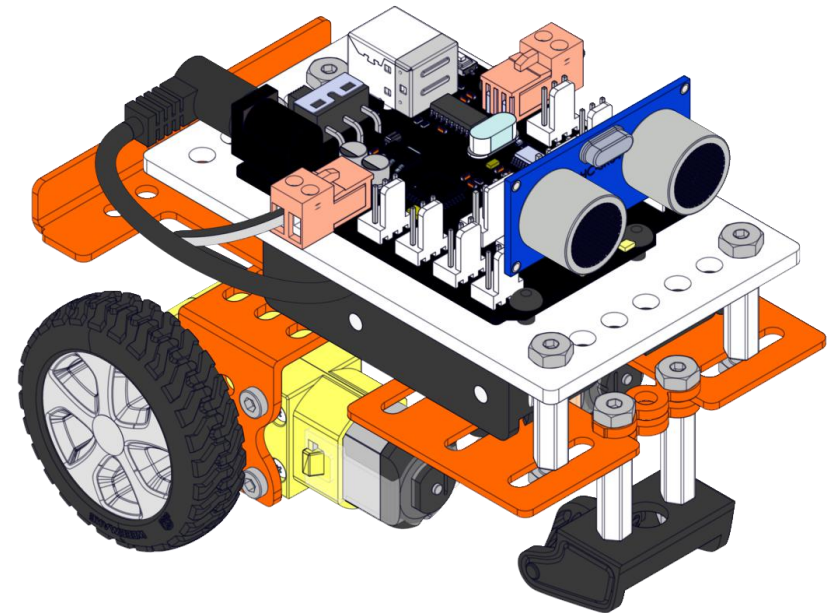
## 9. Install ultrasonic sensor



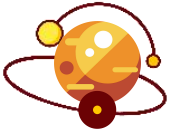
Part:

- 1 x Ultrasonic Sensor

## Moving Robot

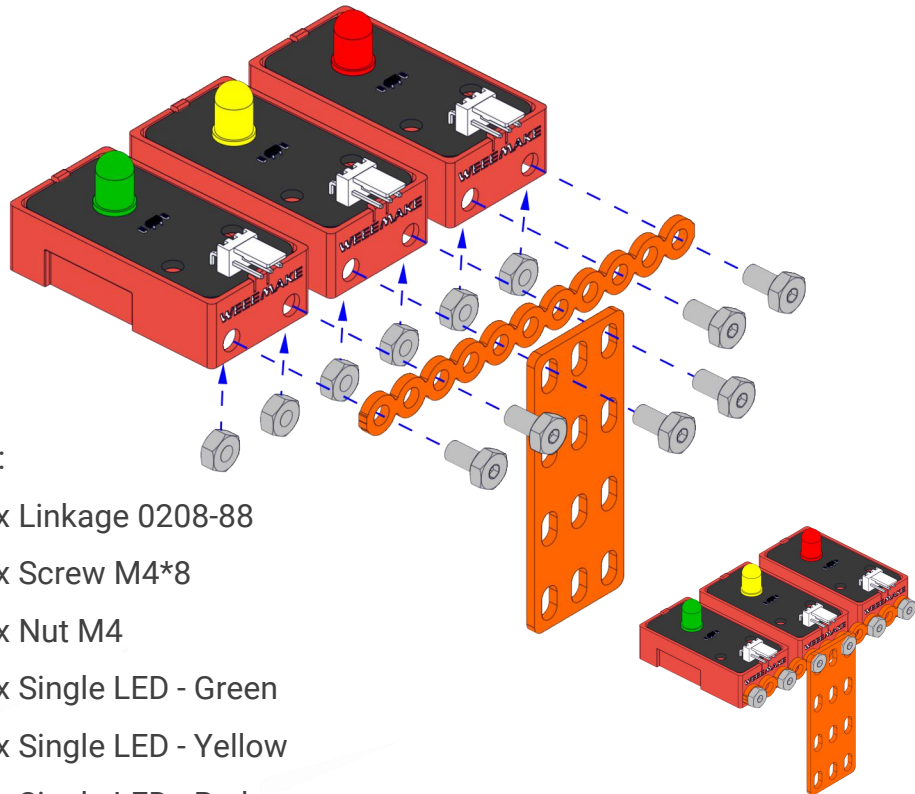


**Finish! The basic form - moving robot!**



# Assembly Guide

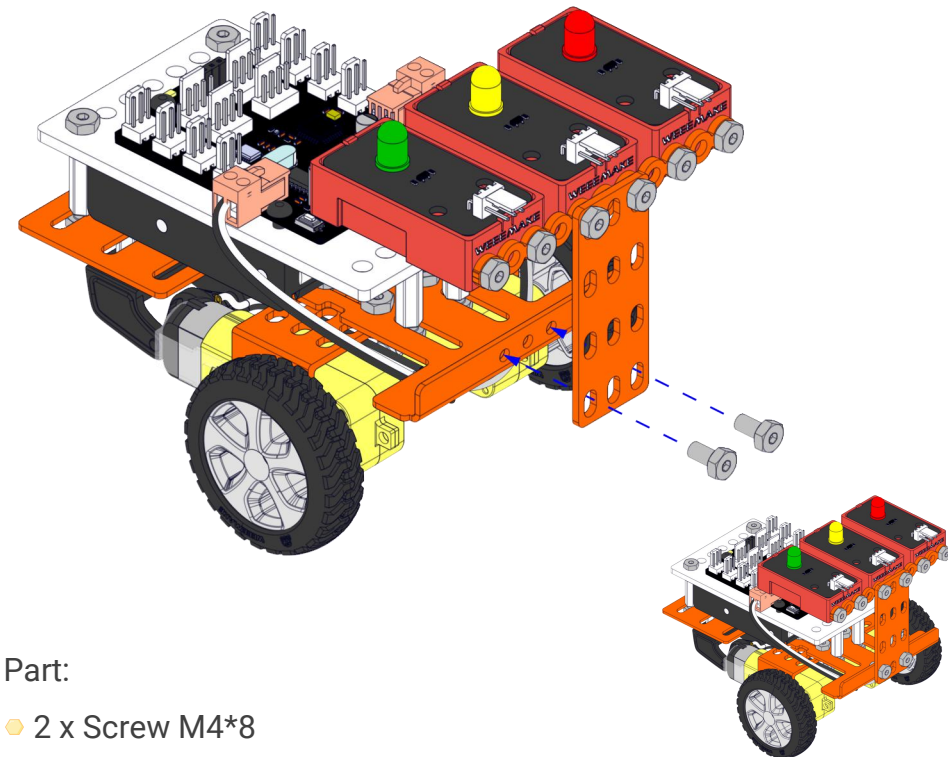
## 1. Install LED modules



Part:

- 1 x Linkage 0208-88
- 6 x Screw M4\*8
- 6 x Nut M4
- 1 x Single LED - Green
- 1 x Single LED - Yellow
- 1 x Single LED - Red

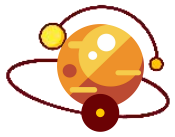
## 2. Install battery holder and battery



Part:

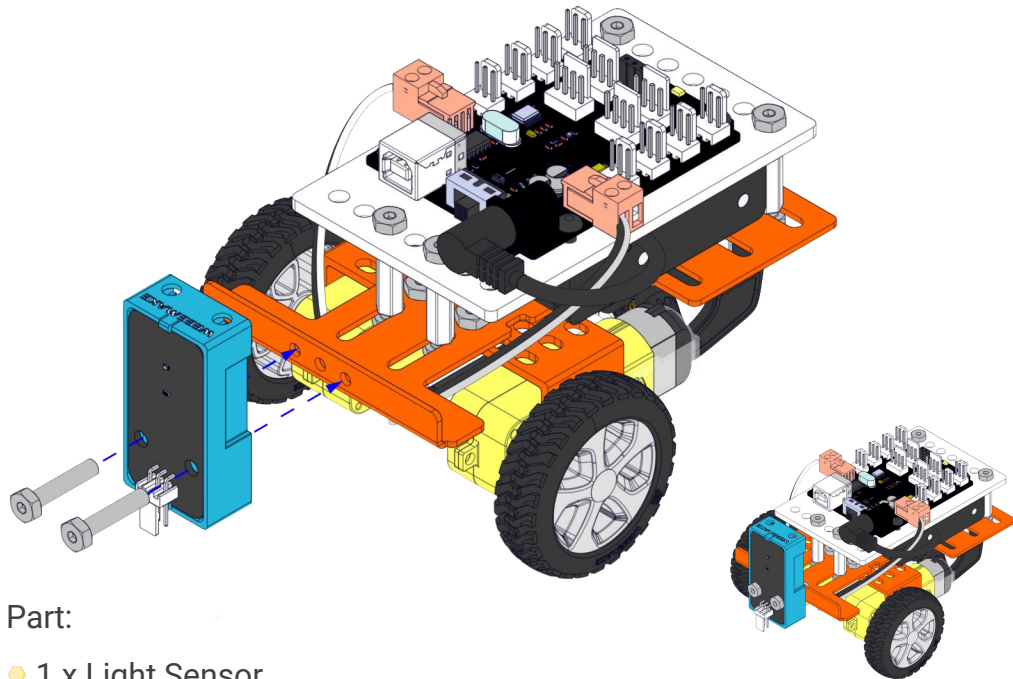
- 2 x Screw M4\*8

**Finish!**



# Assembly Guide

## 1. Install light sensor



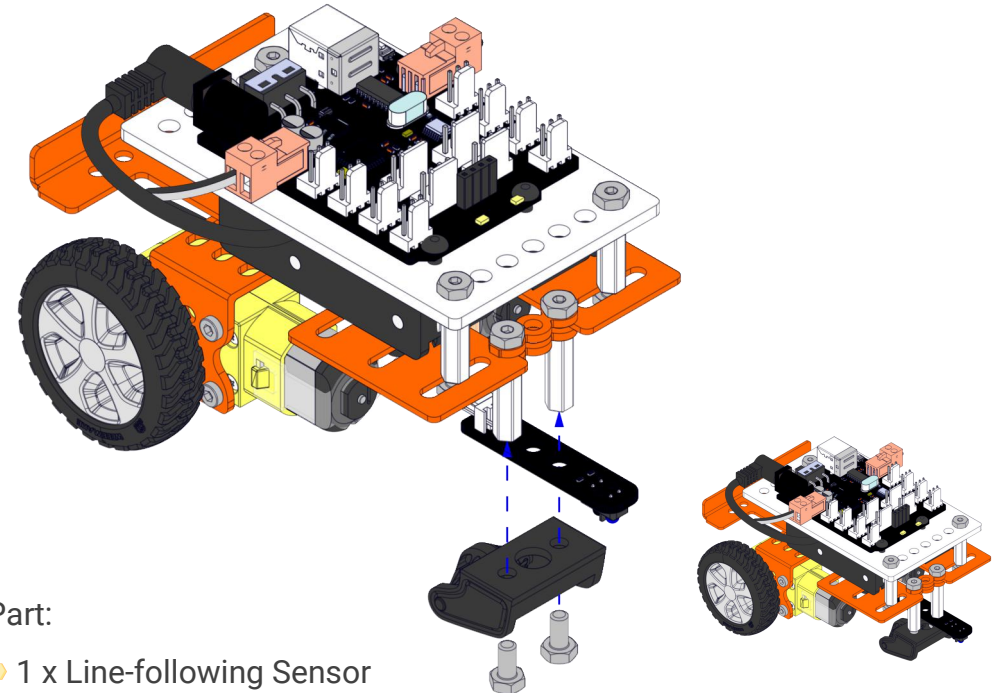
Part:

- 1 x Light Sensor
- 2 x Screw M4\*20

**Finish!**

Follow Light

## 1. Install line-following sensor

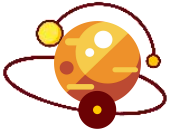


Part:

- 1 x Line-following Sensor
- 2 x Screw M4\*8
- 1 x Plastic Caster

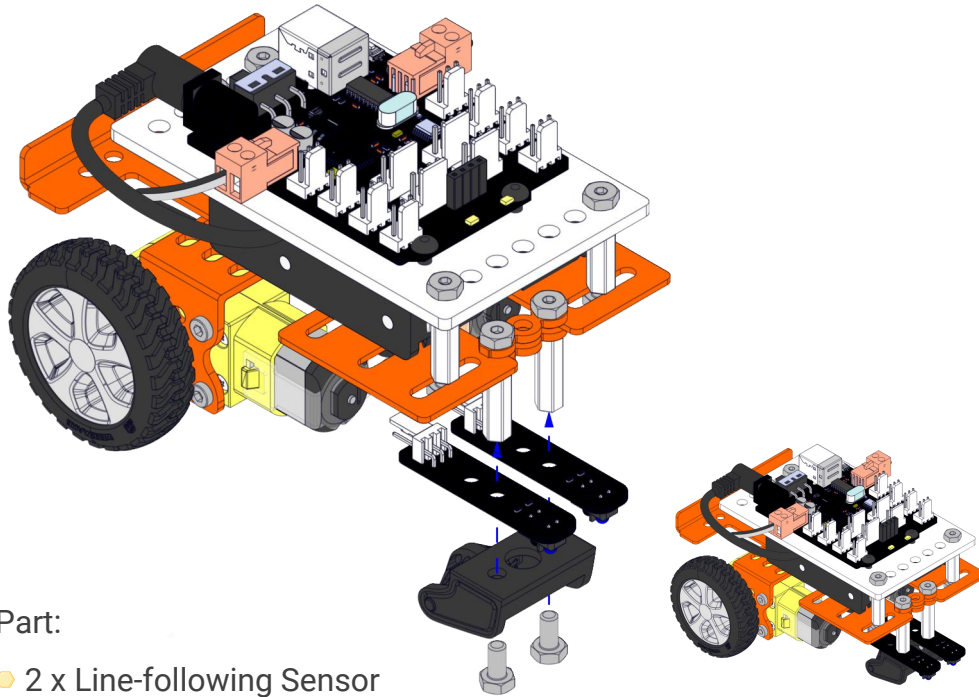
**Finish!**

Single-way Line-following sensor



# Assembly Guide

## 1. Install line-following sensor



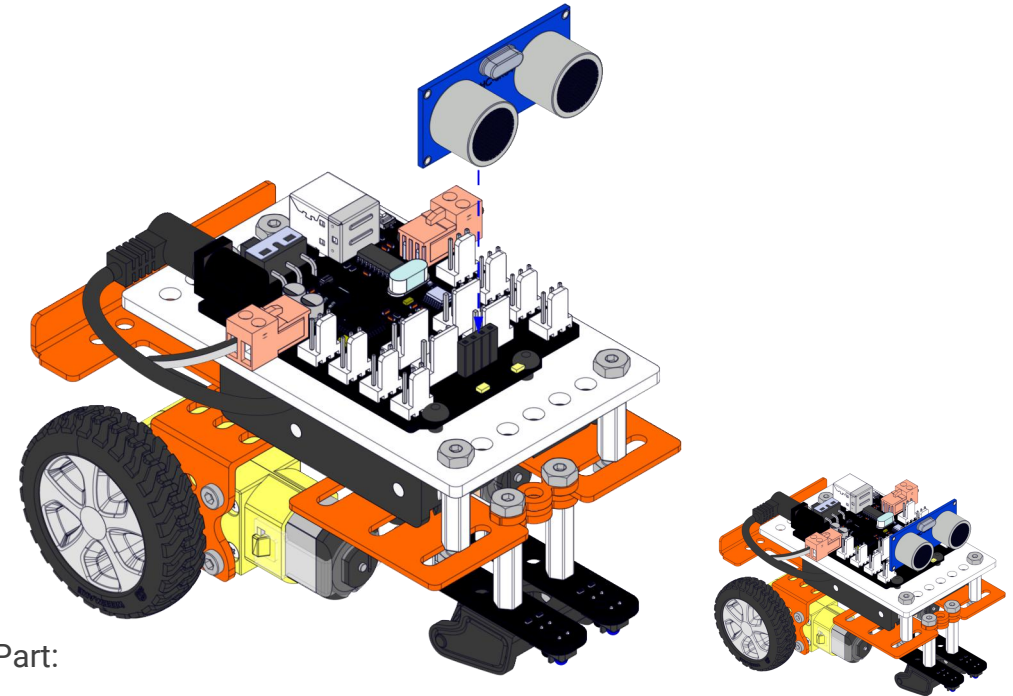
Part:

- 2 x Line-following Sensor
- 2 x Screw M4\*8
- 1 x Plastic Caster

**Finish!**

Double-way Line-following sensor

## 9. Install ultrasonic sensor



Part:

- 1 x Ultrasonic Sensor

**Finish!**