# KitiBot for micro:bit

## Assemble Manual

### PACKAGE CONTENT

1. Metal box x1
2. Gears 8PCS x1
3. Caterpillar track 2PCS x1
4. KitiBot for micro:bit expansion board x1
5. Line tracking sensor x1
6. Ultrasonic sensor x1
7. KitiBot acrylic head x1
8. Servo x1
9. Servo mounting board x1
10. Ultrasonic adapter x1
11. 370 coding motors 2PCS x1
12. PH2.0 20cm 4Pin same side contact cable x1
13. PH2.0 20cm 7Pin same side contact cable x1
14. USB type A plug to micro B plug cable x1
15. KitiBot for micro:bit T screws x1
16. Screwdrivers 2PCS x1

【External components】
1. micro:bit x1
2. 18650 battery x1

SCREWS PACK

There are so many types of screws, please take care.
ASSEMBLE

MOTORS

- Components

1: metal box x1  
11. motor x2  
16-n: screw x6  
16-g: screw x2

- Let shaft of motor through the side-holes of metal box, and fix it with screw (n).

mount the copper post to shaft with screw (n).
WHEELS

● Components

There are three kinds of gears. A wheel is composed of two gears (A+A, A+A, B+C, B+C). Let the holes of gear be coaxial with copper post (J), then use screws (16_a) to fix on the both sides.
- Assemble wheel (B+C) to motor, and fix with screw (a). Screwing copper posts (16_m) and (16_n) to another side for the rest wheels.

- Assemble the wheels and caterpillar track. For wheel (A+A), you should set gaskets (16_i) to both side of its center hole and fix it to motor with long screw (16_b).
SERVO

- Components:

8-servo
9-servo holder
10 – ultrasonic adapter
13-4PIN cable

16_d-screw x2
16_e- nuts x2
16_f-screw x3
16_i-Copper post x2
- Screwing copper post (i) to metal box

- Assemble servo to servo holder with screws (d) and nuts (e)

- Assemble servo to metal box, using screw (d) for fixing.
- Assemble servo arm to ultrasonic adapter (10) using screws (f).

- Assemble adapter to servo and fix it with screw (f), then insert the 4pin cable (13)
**Components**

- Using screws (16_c) to assemble tracker sensor (5) to metal board, then insert the 7PIN cable
Let cable through metal box and close the box with screws (16_n)

KITIBOT FOR MICRO:BIT EXPANSION BOARD

- Components:
  - 4 - micro:bit expansion board
  - 12 - 18650 battery
  - 16_m - copper post x4
  - 16_a - screw x4
- Screw copper post (16-m) to metal box. Assemble kitibot expansion board with screws (16_a). Inserting cables to corresponding interfaces.

### ULTRASONIC SENSOR

- Components

![Ultrasonic sensor](image1)

6-Ultrasonic sensor

![Acrylic head](image2)

7-Acrylic head

- Assemble the ultrasonic sensor and battery