

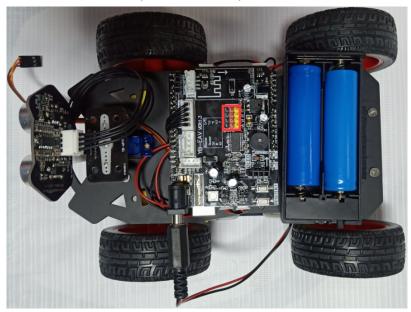
#### **Scratch course ---7.Control Servo**

#### 1. Learning goal

In this lesson, we will learn how to control servo(180°).

# 2. Preparation

2.1 The position of the servo port on the expansion board. As shown below.



- 2.2 Learn how to use control servo graphically program building blocks.
- 2.3 About wiring:

Brown line of servo connect to black pin of servo port(s1) on the expansion board.

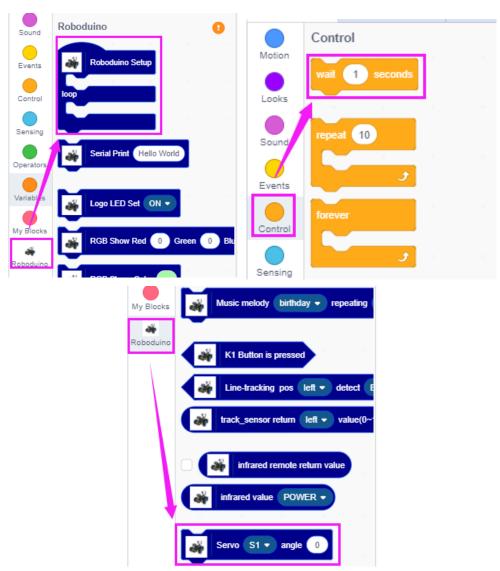
Red line of servo connect to red pin of servo port(s1) on the expansion board.

Orange line of servo connect to yellow pin of servo port(s2) on the expansion board.

### 3. Search for blocks

The following is the location of the building blocks required for this programming.





## 4. Combine blocks





#### 5. Experimental phenomena

After the program is downloaded. When we can open the power of car, No.1 servo will rotate to  $90^{\circ}$  (Initial configuration). After 2 seconds, No.1 servo will rotate to  $0^{\circ}$ -->  $30^{\circ}$ -->  $60^{\circ}$ -->  $90^{\circ}$ -->  $120^{\circ}$ -->  $150^{\circ}$ -->  $180^{\circ}$ , time interval is 0.3 s, and keep looping in this state.