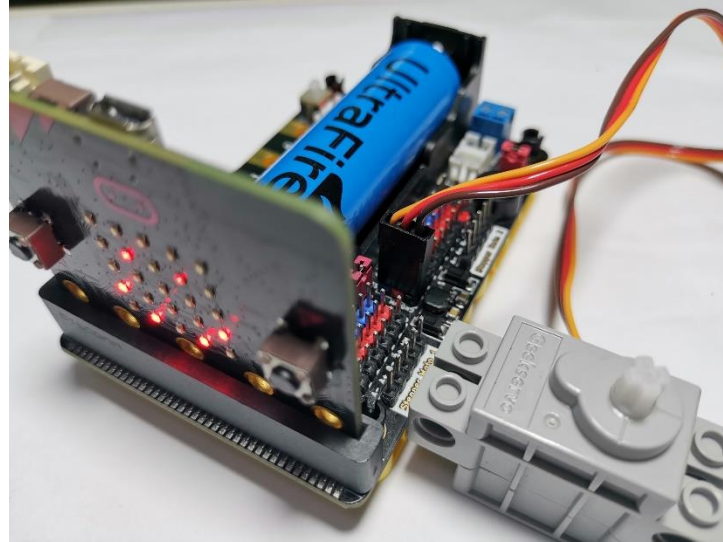


## Section 4. Magicbit control PWM steering gear

- 1、 Achieve the goal
- 2、 Preparation before class
- 3、 Block programming

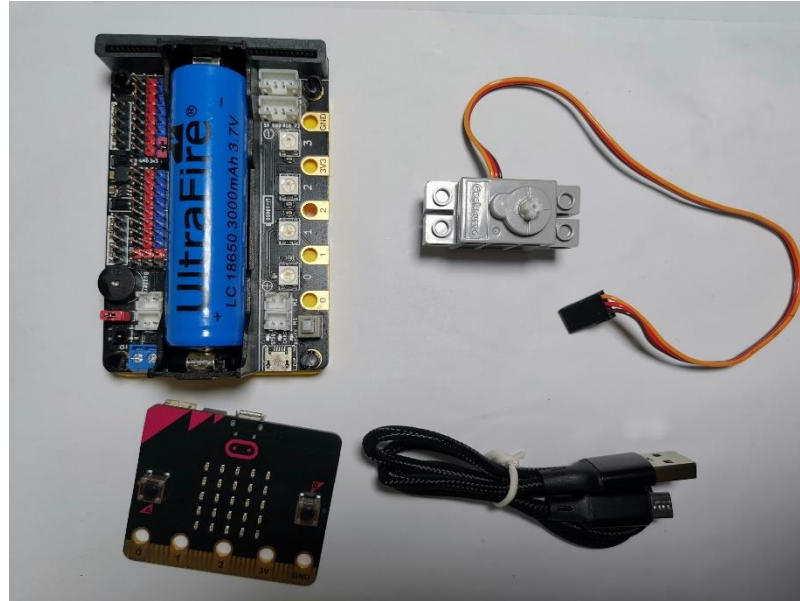
## Section 4. Magicbit control PWM steering gear



### 1、Achieve the goal

Use the microbit motherboard and Magicbit extension to drive the PWM steering gear. When button A presses the steering gear to the position of  $30^{\circ}$  , and when button B presses the steering gear to the position of  $170^{\circ}$

## Section 4. Magicbit control PWM steering gear



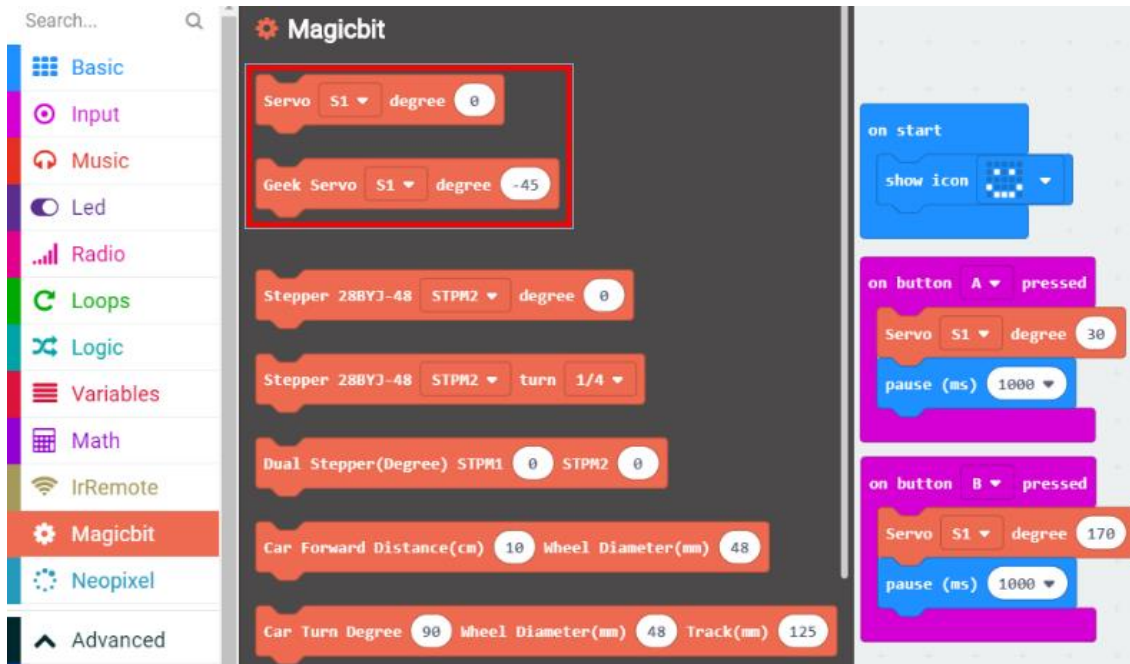
### 2、Preparation before class

prepare a microbit motherboard, a Magicbit extension, a USB cable, a computer, and a PWM steering gear

# Section 4. Magicbit control PWM steering gear

## 3、Block programming

1、 In the Magicbit package, select the steering gear Angle programming block to control the PWM steering gear, select the white triangle symbol of the programming block to select the connecting pin of the steering gear, input the Angle value in the white circle box to control the steering gear rotation Angle.



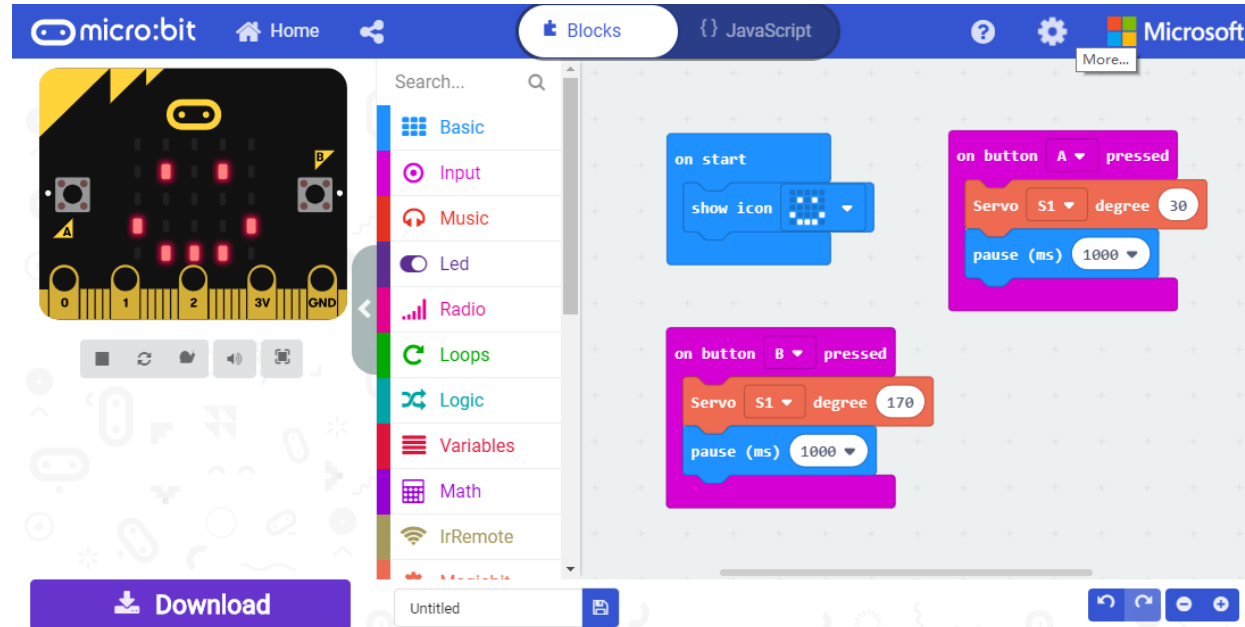
## Section 4. Magicbit control PWM steering gear

### 3、Block programming



2、 When the machine is turned on, the smiling face is displayed, and the button is looped to detect whether there is A button pressed. If the button A is pressed, the steering gear connected to pin S1 will turn to the position of  $30^{\circ}$  , with A delay of 1s; If button B is pressed, the steering gear connected to pin S1 will turn to  $170^{\circ}$  , with a delay of 1s

## Section 4. Magicbit control PWM steering gear



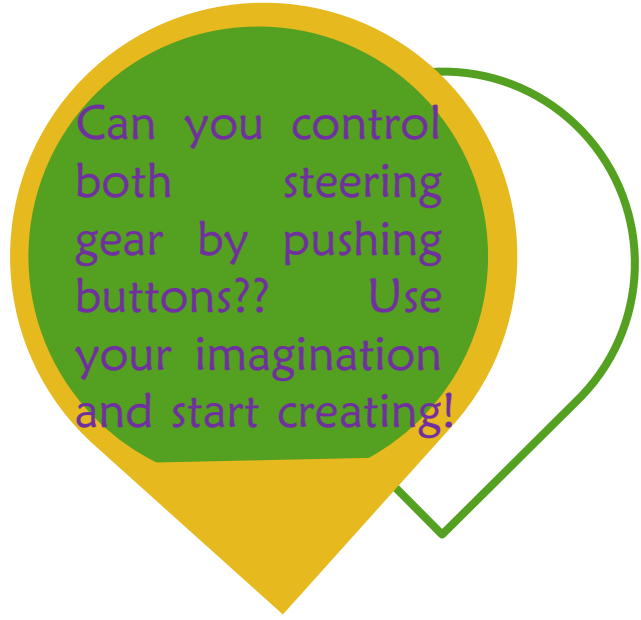
Download  
experience

1. Click "download" to download the program to microbit and see the results of your programming

## Section 4. Magicbit control PWM steering gear

A green circular callout bubble with a yellow border and a yellow triangular tail pointing towards the bottom left. A thin green line connects the bubble to the main content area.

Did your  
program  
work ???

A green circular callout bubble with a yellow border and a yellow triangular tail pointing towards the bottom right. A thin green line connects the bubble to the main content area.

Can you control  
both steering  
gear by pushing  
buttons?? Use  
your imagination  
and start creating!