

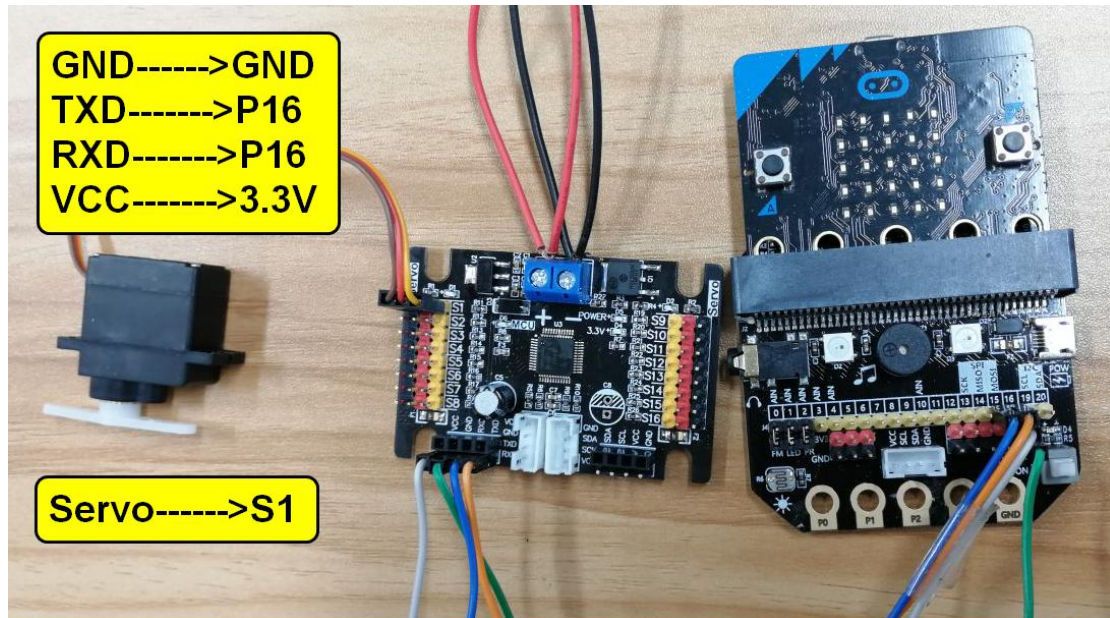
Serial control servo

1. Learning target

In this course, we will learn how to use Micro:bit and 16-channel servo debugging board to control servo.

2. Preparation

Connect the module to Micro:bit board by expansion board, as shown below.



3. Programming method

Mode 1 online programming: First, we need to connect the micro:bit to the computer by USB cable. The computer will pop up a USB flash drive and click on the URL in the USB flash drive: <http://microbit.org/> to enter the programming interface. Add the Yahboom package https://github.com/YahboomTechnology/Servo_16C to programming.

Mode 2 offline programming: We need to open the offline programming software. After the installation is complete, enter the programming interface, click 【New Project】, add Yahboom package: https://github.com/YahboomTechnology/Servo_16C, you can start programming.

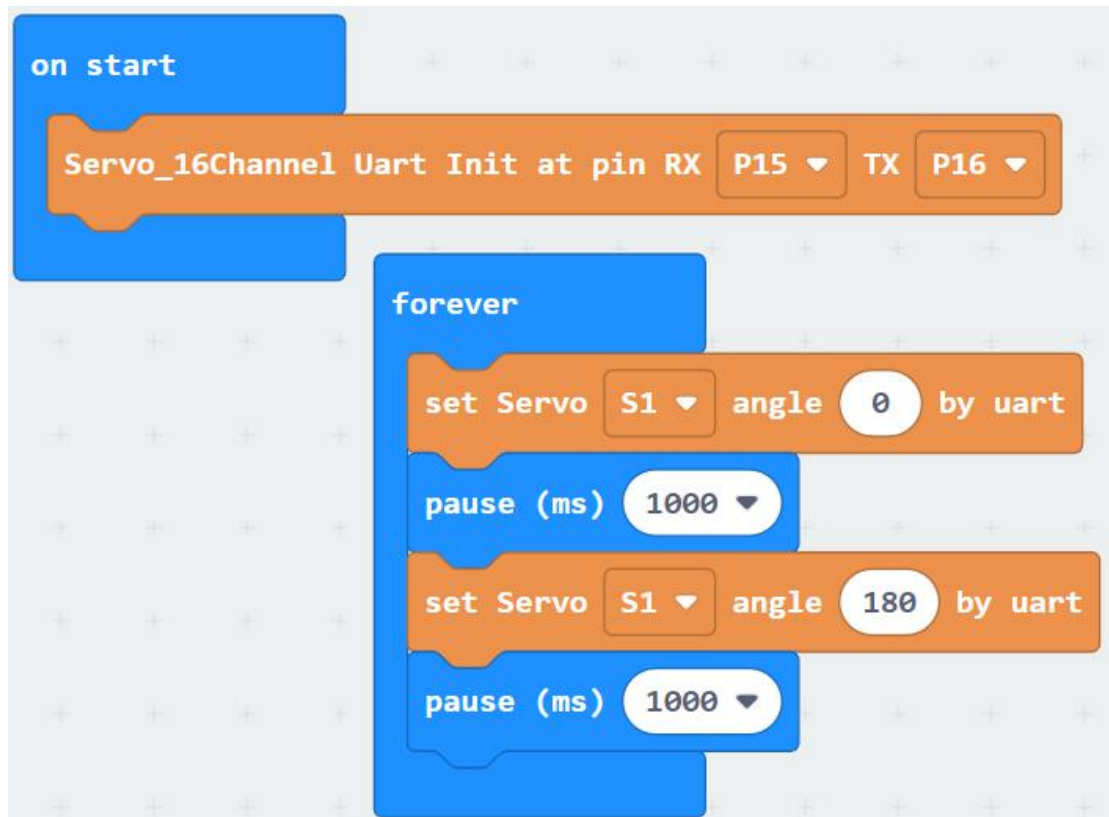
4. Looking for blocks

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

The image shows the Scratch Servo_16C block editor. On the left, a sidebar lists various block categories: Basic, Input, Music, Led, Radio, Loops, Logic, Variables, Math, and Servo_16C (highlighted with a red box). The main workspace displays the Servo_16C block configuration. A red box highlights the 'Servo_16Channel Uart Init at pin RX' block, which has dropdown menus for 'P0' and 'TX P0'. Below it, two 'set Servo S1 angle 0 by' blocks are shown, one for 'uart' and one for 'iic'. A red arrow points from the 'Servo_16C' category in the sidebar to the 'Servo_16Channel Uart Init at pin RX' block. Below the main workspace, a smaller screenshot shows the 'Basic' block category in the sidebar (highlighted with a red box) and a 'forever' loop block containing an 'on start' block and a 'pause (ms) 100' block (highlighted with a red box). A red arrow points from the 'Basic' category in the sidebar to the 'on start' block.

5.Combine block

The summary program is shown below.



6. Phenomenon

After the program is downloaded successfully. The servo will rotate 0°, after 1s it will rotate 180°, after 1s servo will rotate 0°, keep the loop like this status.