

Birthday-gift-box

1.Learning goals

In this lesson, we mainly use alligator clips, tin foil and paper box, and learn how to use the input blocks to read if pin P2 is touched. We determine if the box is opened by

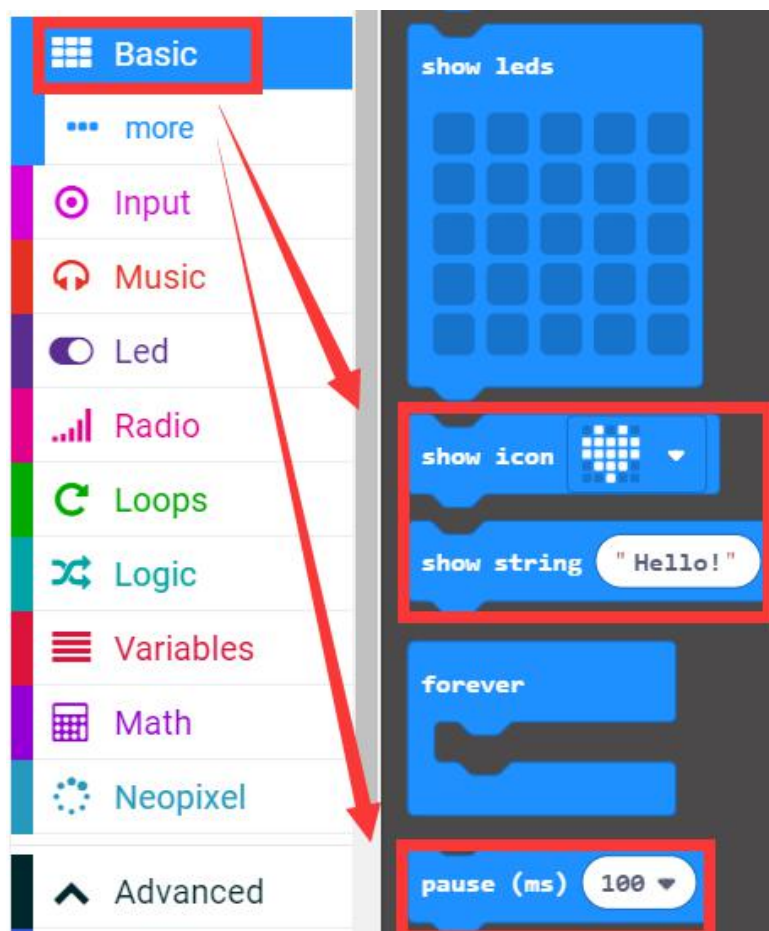
2.Programming method:

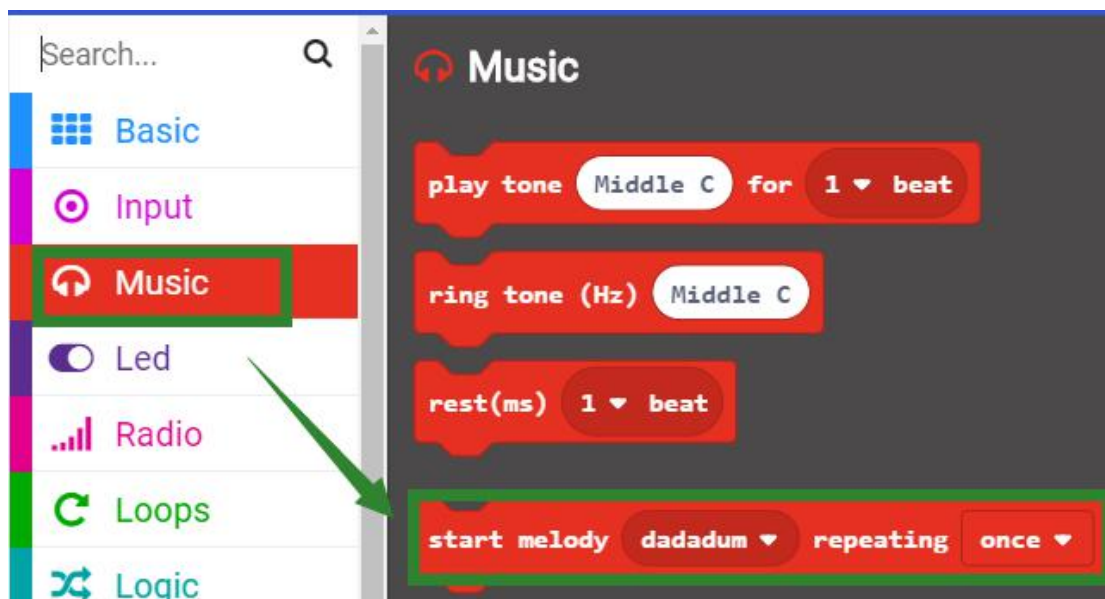
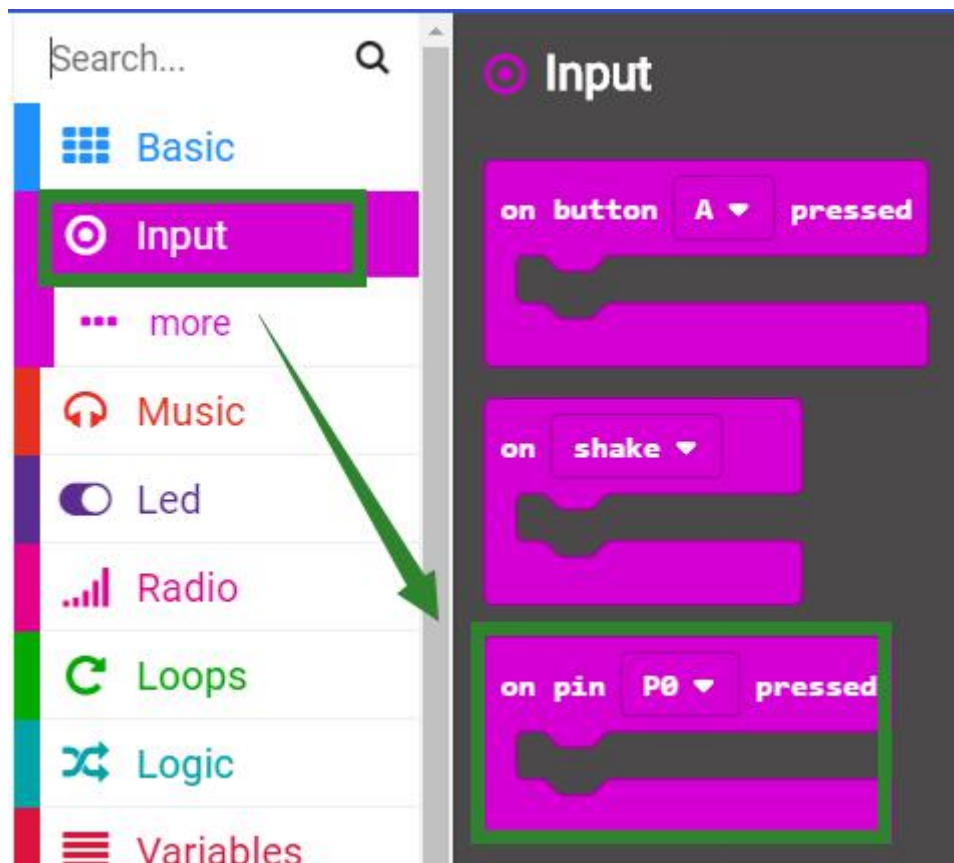
Mode 1 online programming: First, we need to connect the micro:bit to the computer by USB cable. The computer will pop up a USB flash drive and click on the URL in the USB flash drive: <http://microbit.org/> to enter the programming interface to program.

Mode 2 offline programming: We need to open the offline programming software. After the installation is complete, enter the programming interface, click **【New Project】** to program.

3.Looking for blocks

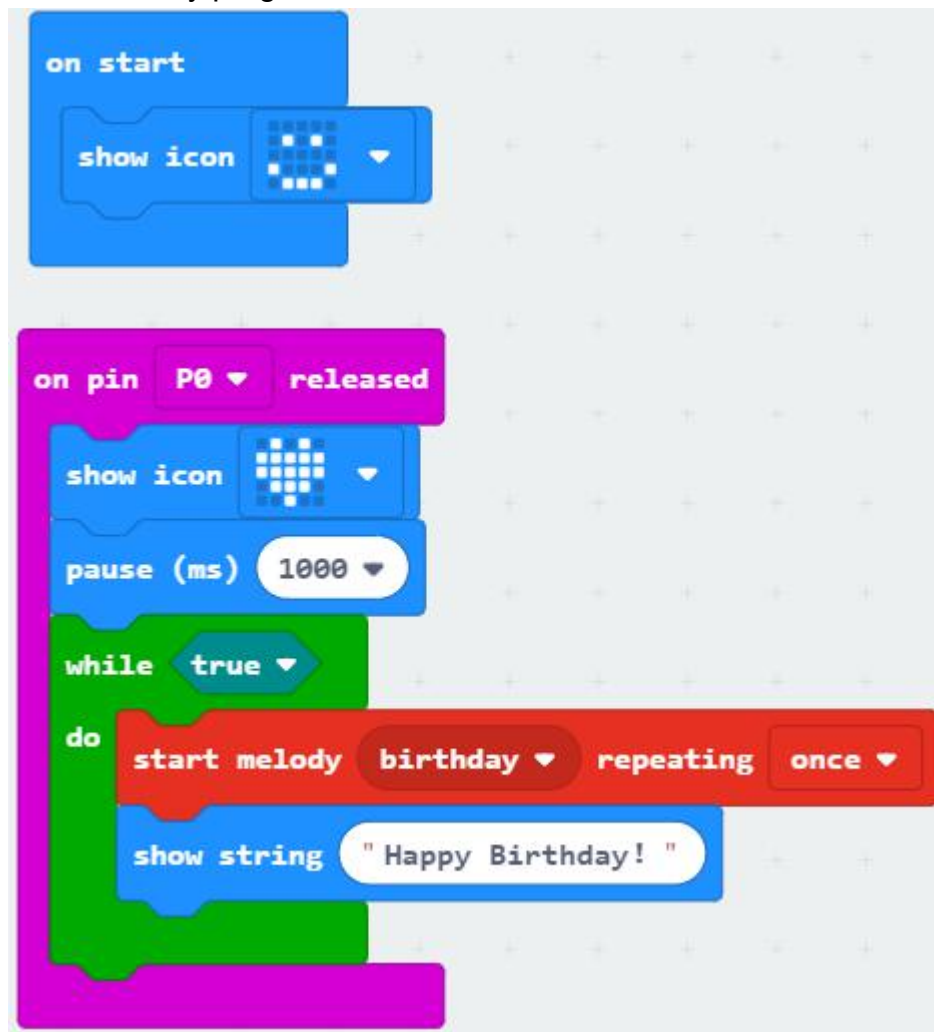
The following is the location of the building blocks required for this programming.



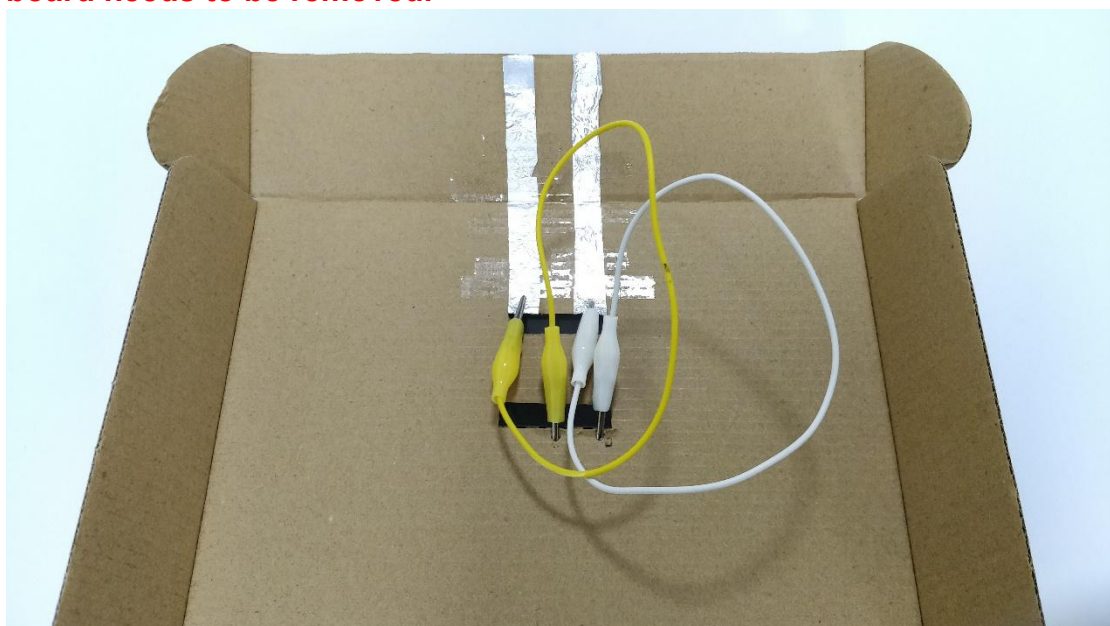


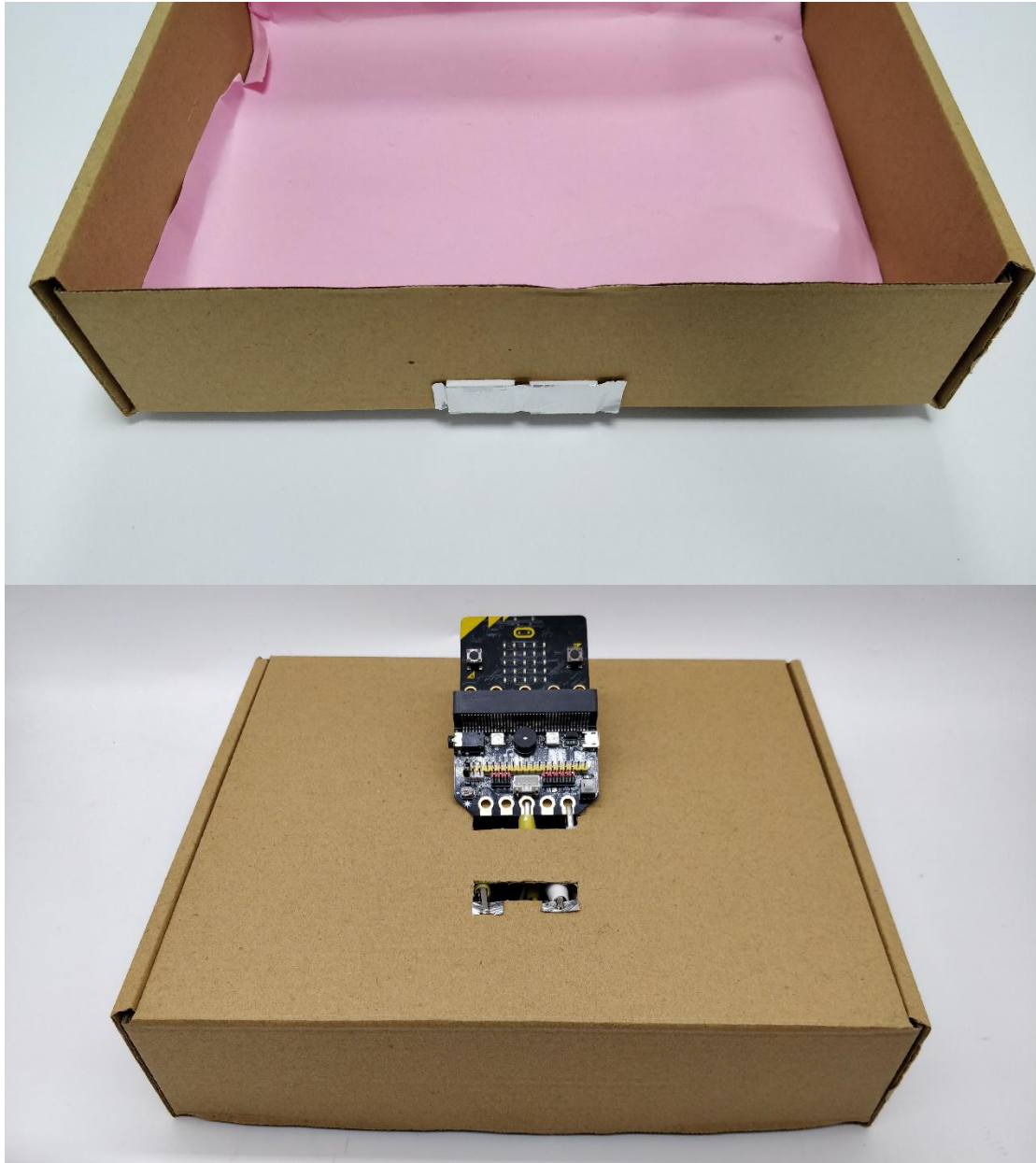
4.Combine building block

The summary program is shown below:



Note: The jumper cap on the P2 and PR pins on the basic expansion board needs to be removed.





5. Experimental phenomena

After the program is successfully downloaded, We need to cover the box and keep the internal circuit connected. Then turn on the power switch, the micro:bit dot matrix will display a smile;

When we open the cover, the micro:bit dot matrix will display "heart", after 1 second, the buzzer will play "Birthday Song" and show "Happy Birthday!".

If you need to start again, press the reset button on the back of the micro:bit board.