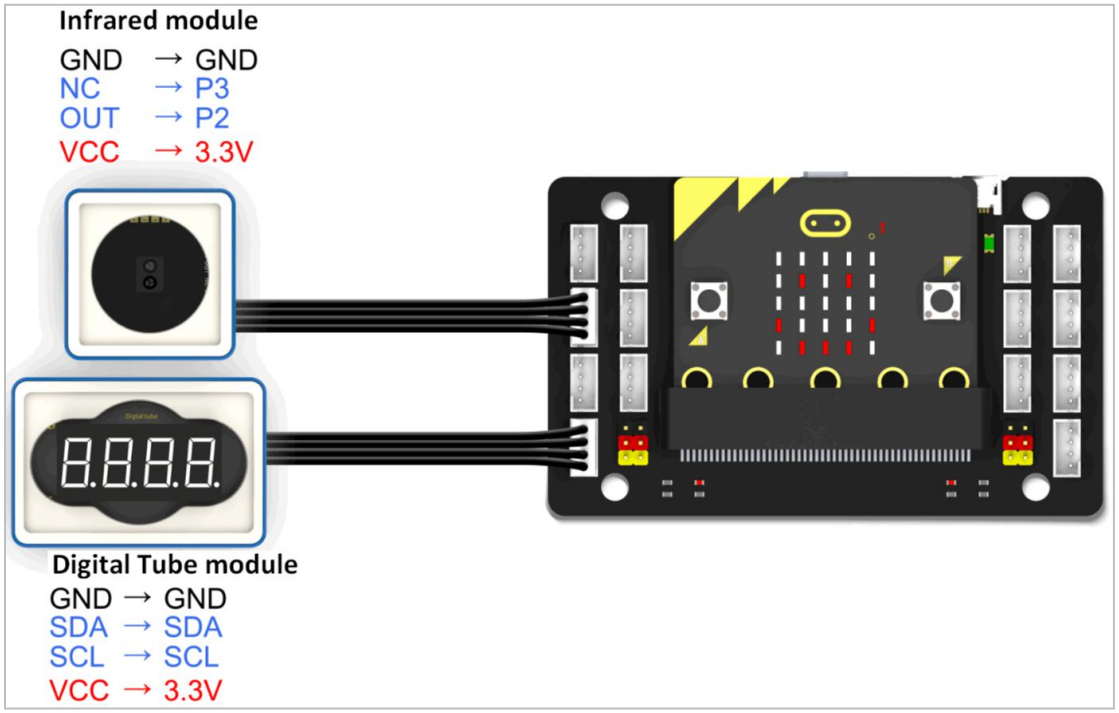
Piggy bank

1. Learning target

In this course, we will earn how to use Micro:bit, infrared module and digital tube realize smart piggy bank.

2. Preparation

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



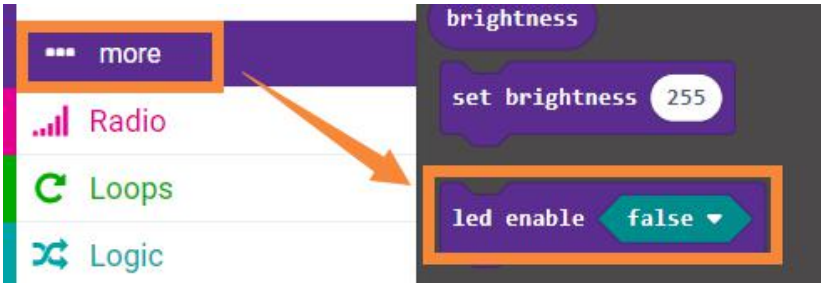
3.Programming method

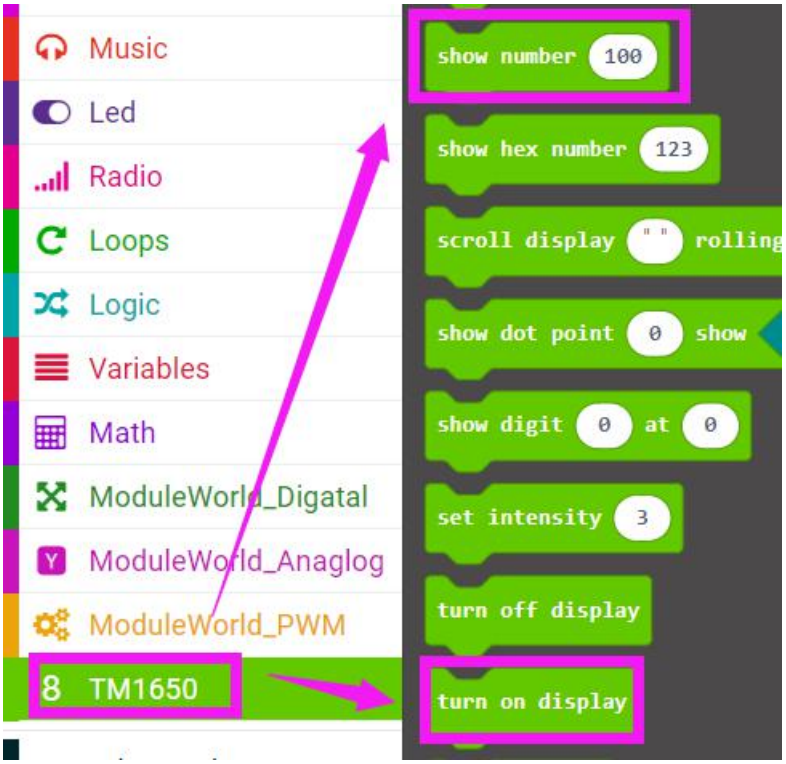
Mode 1 online programming: First, we need to connect the micro:bit to the computer by USB cable. The computer will pop up a USB flash drive and click on the URL in the USB flash drive: http://microbit.org/ to enter the programming interface. Add the Yahboom package https://github.com/YahboomTechnology/Module-World and https://github.com/YahboomTechnology/tm1650 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】, add Yahboom package: https://github.com/YahboomTechnology/Module-World and https://github.com/YahboomTechnology/tm1650, you can start programming.

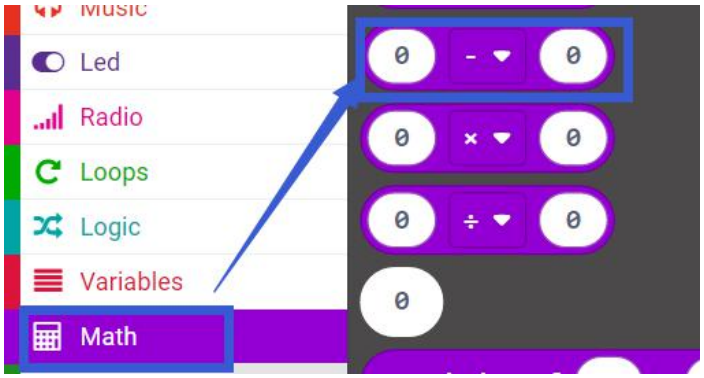
4.Looking for blocks

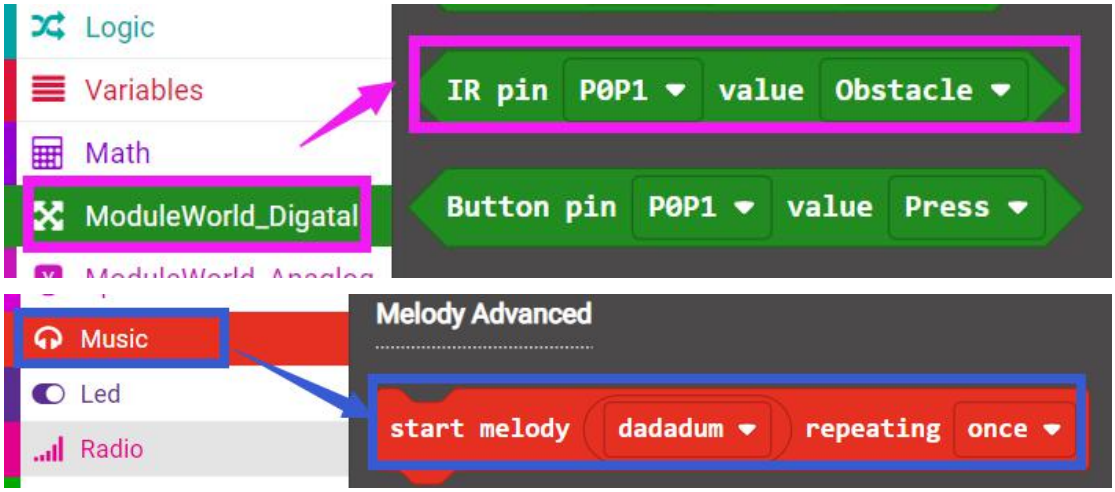
The following is the location of the building blocks required for this programming.


more
Radio
Loops
Logic
brightness
set brightness 255
led enable false


Music
Led
Radio
Loops
Logic
Variables
Math
ModuleWorld_Digatal
ModuleWorld_Anaglog
ModuleWorld_PWM
TM1650
show number 100
show hex number 123
scroll display " " rolling
show dot point 0 show
show digit 0 at 0
set intensity 3
turn off display
turn on display

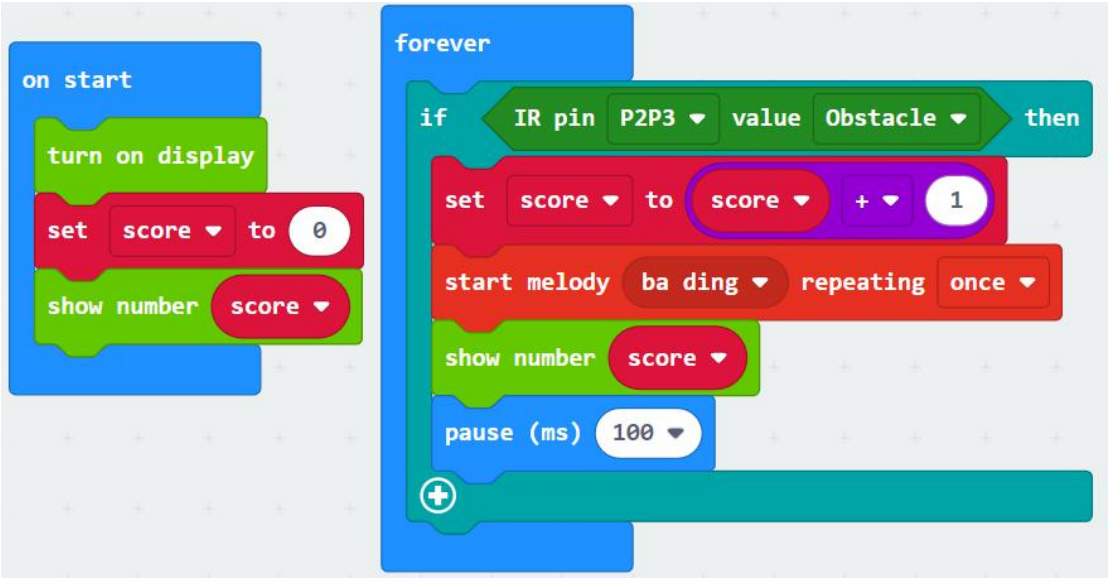

Variables
Math
ModuleWorld_Digatal
ModuleWorld_Anaglog
Rocker pin P0P1 value NoState


Led
Radio
Loops
Logic
Variables
Math
0 - 0
0 × 0
0 ÷ 0
0



5.Combine block

The summary program is shown below.



5. Phenomenon

After the program is downloaded successfully. The digital tube displays 0000. After dropping the coin into the piggy bank, the main board will start counting the number of coins and display the value on the digital tube.