4-digit 7-segment Digital Tube Module Experiment

Module Introduction

The 4-digit 7-segment digital tube is composed of a 12 pin 4-digit 7-segment common anode digital tube and a control chip TM1650. This product can be used in digital display devices.

The 4-digit 7-segment common cathode digital tube is connected by the cathodes of 8 LEDs in each digit, as shown in Figure 1.1. The module is driven by TM1650 chip, which uses two line serial communication. DP is the decimal point. Please refer to the chip data manual for detailed parameters of TM1650.

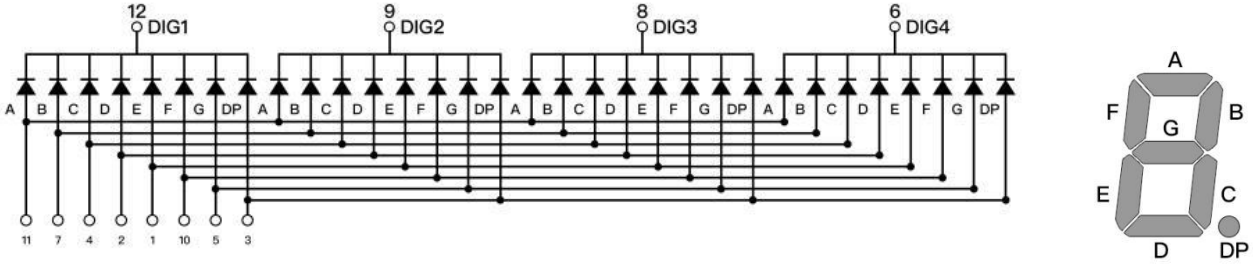


图 1.1

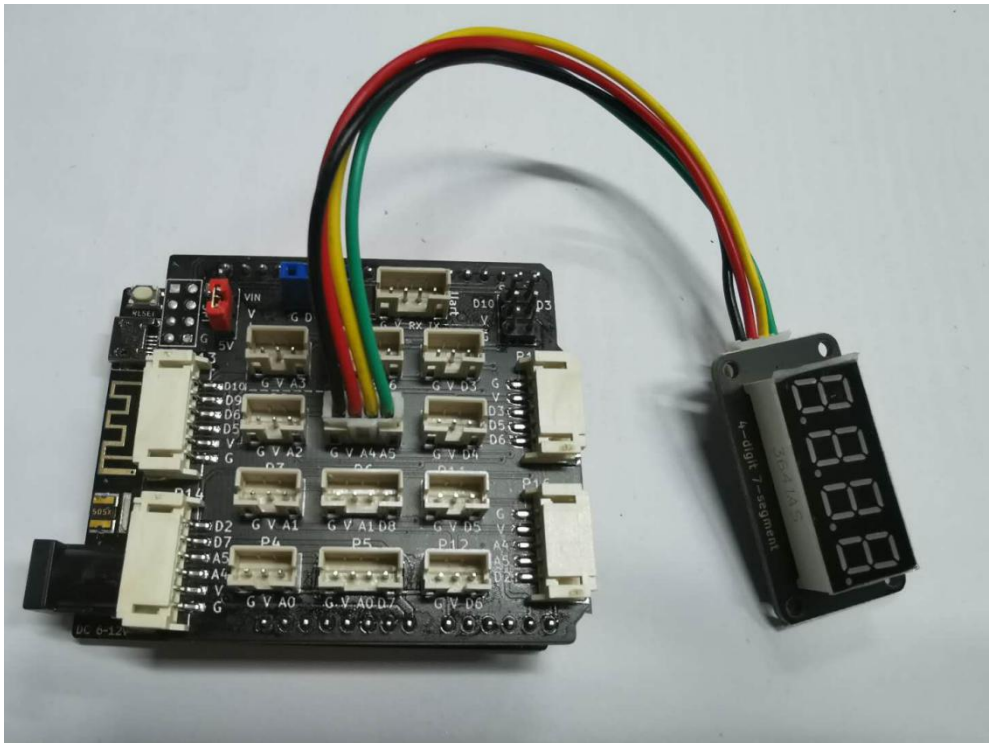
Purpose of the Experiment

Use TM1650 4-digit 7-segment digital tube to display numbers.

Device List

- BLE-UNO Main Board: 1
- Expansion Board of H2.0 Sensor :1
- USB Data Wire: 1
- 4-digit 7-segment Digital Tube Module: 1
- 4PIN Wire Jumper: 1

Physical Wiring Diagram



Arduino Program

```
#include <Wire.h>
#include "TM1650.h"

TM1650 tm_4display;

void setup()
{
   Wire.begin(); //Join the bus as master
   Serial.begin(9600); //Set the baud rate to 9600
   Serial.println("OpenSegment Example Code");
   tm_4display.init();    //initialization
   delay(1000);
}

void loop()
{
   tm_4display.displayString("1234");//Display number 1234
}
```

MagicBlock Program

Light up the decimal point of a digit.

Mixly Program

Experimental Conclusion

After the device is connected to the cable, burn the above program to the BLE-UNO motherboard, power on the BLE-UNO motherboard, and you will find that the digital tube displays the number.