

Project 16: IO port driving 8*8 LED matrix

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pi@raspberrypi: ~/树莓派基础套件程序资料/第十六课/8x8点阵/ 8x8点阵归并
pi@raspberrypi ~/$ cd 第十六课/8x8点阵/
pi@raspberrypi: ~/树莓派基础套件程序资料/第十六课/8x8点阵/$ ls
00dianzhen.c  guide16
pi@raspberrypi: ~/树莓派基础套件程序资料/第十六课/8x8点阵/$ nano guide16
pi@raspberrypi: ~/树莓派基础套件程序资料/第十六课/8x8点阵/$ nano 00dianzhen.c
pi@raspberrypi: ~/树莓派基础套件程序资料/第十六课/8x8点阵/$ gpio readall
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| BCM | wPi | Name | Mode | V | Physical | V | Mode | Name | wPi | BCM |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 8 | 3.3v |  |  | 1 | 2 |  |  | 5v |  |  |
| 2 | 8 | SDA.1 | OUT | 0 | 3 | 4 |  |  | 5V |  |  |
| 3 | 9 | SCL.1 | OUT | 1 | 5 | 6 |  |  | 0v |  |  |
| 4 | 7 | GPIO. 7 | OUT | 1 | 7 | 8 | 0 | OUT | TxD | 15 | 14 |
|  |  | 0v |  |  | 9 | 10 | 1 | OUT | RxD | 16 | 15 |
| 17 | 0 | GPIO. 0 | OUT | 1 | 11 | 12 | 0 | OUT | GPIO. 1 | 1 | 18 |
| 27 | 2 | GPIO. 2 | OUT | 0 | 13 | 14 |  |  | 0v |  |  |
| 22 | 3 | GPIO. 3 | OUT | 1 | 15 | 16 | 1 | OUT | GPIO. 4 | 4 | 23 |
|  |  | 3.3v |  |  | 17 | 18 | 1 | OUT | GPIO. 5 | 5 | 24 |
| 10 | 12 | MOSI | OUT | 1 | 19 | 20 |  |  | 0v |  |  |
| 9 | 13 | MISO | OUT | 1 | 21 | 22 | 1 | OUT | GPIO. 6 | 6 | 25 |
| 11 | 14 | SCLK | OUT | 1 | 23 | 24 | 1 | OUT | CE0 | 10 | 8 |
|  |  | 0v |  |  | 25 | 26 | 1 | OUT | CE1 | 11 | 7 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 28 | 17 | GPIO.17 | IN | 0 | 51 | 52 | 0 | IN | GPIO.18 | 18 | 29 |
| 30 | 19 | GPIO.19 | IN | 0 | 53 | 54 | 0 | IN | GPIO.20 | 20 | 31 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| BCM | wPi | Name | Mode | V | Physical | V | Mode | Name | wPi | BCM |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
pi@raspberrypi ~/$ gcc 00dianzhen.c -o 00dianzhen -lwiringPi
pi@raspberrypi ~/$ ls
00dianzhen 00dianzhen.c  guide16
pi@raspberrypi ~/$ sudo ./00dianzhen
^Cpi@raspberrypi ~/$

```

Pic. 1

```
pi@raspberrypi: ~/... 8x8 8x8 8x8
GNU nano 2.2.6 File: 00dianzhen.c

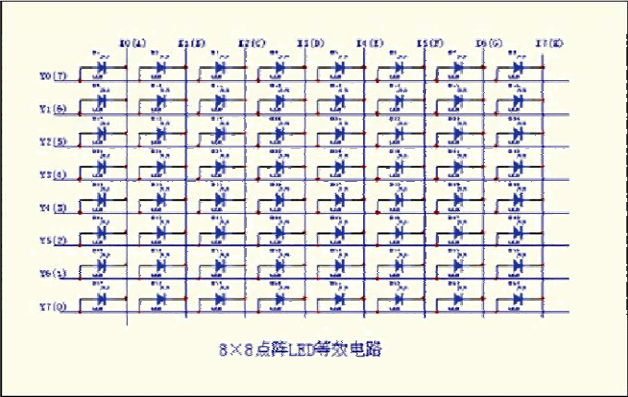
#include <wiringPi.h>
//#define 1 1
//#define 2 2
//#define 3 3
//#define 4 4
//#define 5 5
//#define 6 6
//#define 7 7
//#define 8 8
#define A 9
#define B 10
#define C 11
#define D 12
#define E 13
#define F 14
#define G 15
#define H 16

int main()
{
    wiringPiSetup();
    pinMode(1,OUTPUT);
    pinMode(2,OUTPUT);
    pinMode(3,OUTPUT);
    pinMode(4,OUTPUT);
    pinMode(5,OUTPUT);
    pinMode(6,OUTPUT);
    pinMode(7,OUTPUT);
    pinMode(8,OUTPUT);
    pinMode(A,OUTPUT);
    pinMode(B,OUTPUT);

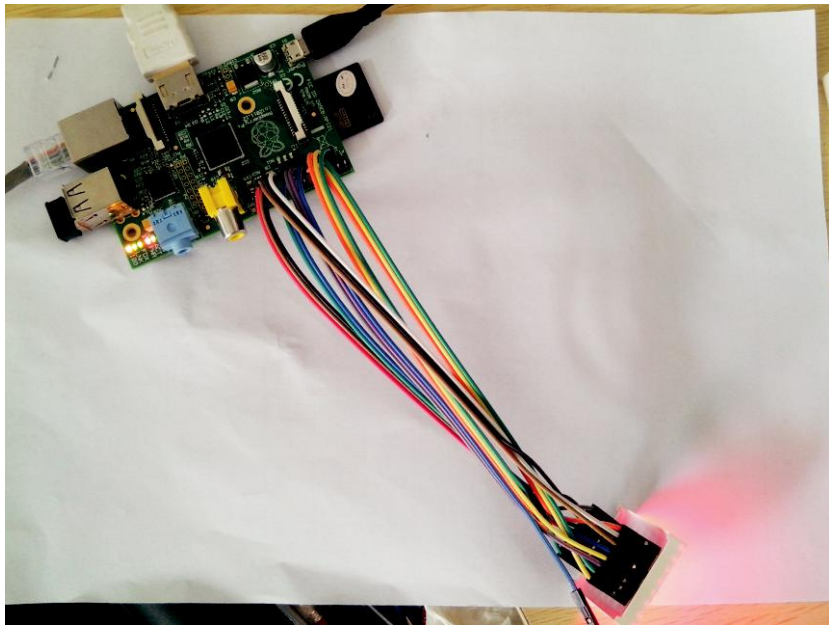
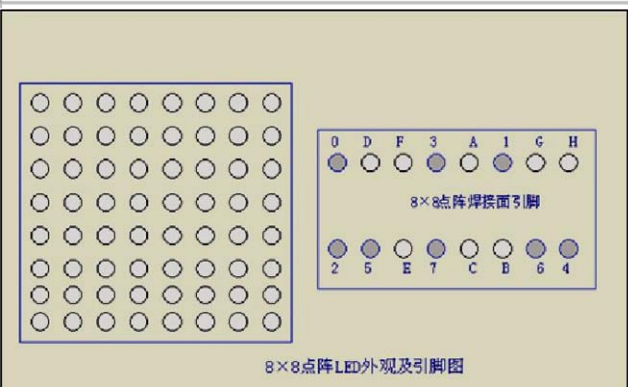
    ^G Get Help  ^O WriteOut  ^R Read File  ^Y Prev Page  ^K Cut Text   ^C Cur Pos
    ^X Exit      ^J Justify   ^W Where Is   ^V Next Page  ^U UnCut Text ^T To Spell
```

Pic. 2

1. 8*8 点阵原理图



2. 8*8 点阵实物图



Pic. 3