

树莓派第四课 softpwm灯控制

```
pi@raspberrypi: ~/树莓派基础套件程序资料/第四课/softpwm灯控制/
pi@raspberrypi: ~/树莓派基础套件程序资料/第四课/softpwm灯控制 $ ls
softpwm6.c
pi@raspberrypi: ~/树莓派基础套件程序资料/第四课/softpwm灯控制 $ nano softpwm6.c
pi@raspberrypi: ~/树莓派基础套件程序资料/第四课/softpwm灯控制 $ gcc -Wall -o softpwm6 softpwm6.c
-lwiringPi
pi@raspberrypi: ~/树莓派基础套件程序资料/第四课/softpwm灯控制 $ ls
softpwm6 softpwm6.c
pi@raspberrypi: ~/树莓派基础套件程序资料/第四课/softpwm灯控制 $ gpio readall
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| BCM | wPi |   Name   | Mode | V | Physical | V | Mode |   Name   | wPi | BCM |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|    2 |    8 |  SDA.1   | ALT0 | 1 |    3     | 4 |      |  5V      |     |     |
|    3 |    9 |  SCL.1   | ALT0 | 1 |    5     | 6 |      |  0v      |     |     |
|    4 |    7 | GPIO. 7  | IN    | 1 |    7     | 8 | ALT0 |  TxD     | 15  | 14  |
|     |     |    0v    |       |   |    9     |10 | ALT0 |  RxD     | 16  | 15  |
|   17 |    0 | GPIO. 0  | IN    | 0 |   11    |12 | ALT5 | GPIO. 1  |  1  | 18  |
|   27 |    2 | GPIO. 2  | IN    | 0 |   13    |14 |      |  0v      |     |     |
|   22 |    3 | GPIO. 3  | IN    | 0 |   15    |16 | IN    | GPIO. 4  |  4  | 23  |
|     |     |  3.3v    |       |   |   17    |18 | IN    | GPIO. 5  |  5  | 24  |
|   10 |   12 |  MOSI    | ALT0 | 0 |   19    |20 |      |  0v      |     |     |
|    9 |   13 |  MISO    | ALT0 | 0 |   21    |22 | OUT   | GPIO. 6  |  6  | 25  |
|   11 |   14 |  SCLK    | ALT0 | 0 |   23    |24 | ALT0 |  CE0     | 10  |  8  |
|     |     |    0v    |       |   |   25    |26 | ALT0 |  CE1     | 11  |  7  |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|   28 |   17 | GPIO.17  | IN    | 0 |   51    |52 | IN    | GPIO.18  | 18  | 29  |
|   30 |   19 | GPIO.19  | IN    | 0 |   53    |54 | IN    | GPIO.20  | 20  | 31  |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| BCM | wPi |   Name   | Mode | V | Physical | V | Mode |   Name   | wPi | BCM |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|     |     |     Model B2     |     |     |     |     |     |     |     |     |
pi@raspberrypi: ~/树莓派基础套件程序资料/第四课/softpwm灯控制 $ sudo ./softpwm6
^Cpi@raspberrypi: ~/树莓派基础套件程序资料/第四课/softpwm灯控制 $
```

图一

```
pi@raspberrypi: ~/.../softpwm6.c
GNU nano 2.2.6 File: softpwm6.c

#include <wiringPi.h>
#include <softPwm.h>
#include <stdio.h>
#include <stdlib.h>
#include <stdint.h>

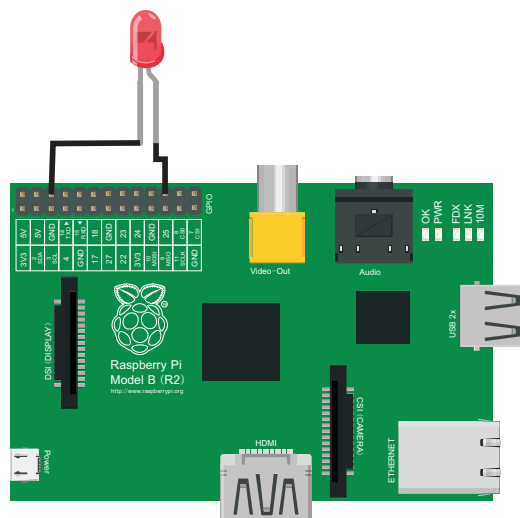
int main()
{
    int bright;
    wiringPiSetup ();
    softPwmCreate (6, 0, 100) ;

    for (;;)
    {
        for (bright = 0 ; bright < 100 ; ++bright)
        {
            softPwmWrite (6, bright) ;
            delay (10) ;
        }

        for (bright = 100 ; bright >= 0 ; --bright)
        {
            softPwmWrite (6, bright) ;
            delay (10) ;
        }
    }
}
```

^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

图二



图三