

Project 10: Tilt switch

```

pi@raspberrypi: ~/树莓派基础套件程序资料/第十课 倾斜开关/
开关pi@raspberrypi ~/树莓派基础套件程序资料/第十课 倾斜开关 $ ls
qingxie.c
开关pi@raspberrypi ~/树莓派基础套件程序资料/第十课 倾斜开关 $ nano qingxie.c
开关pi@raspberrypi ~/树莓派基础套件程序资料/第十课 倾斜开关 $ nano qingxie.c
开关pi@raspberrypi ~/树莓派基础套件程序资料/第十课 倾斜开关 $ gpio readall
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| BCM | wPi |   Name   | Mode | V | Physical | V | Mode |   Name   | wPi | BCM |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|      |      | 3.3v     |      |   | 1 || 2 |      | 5v       |      |      | |
|  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 | 1 | OUT   | TxD      | 15  | 14  |
|      |      | 0v       |      |   | 9 || 10 | 1 | ALT0  | RxD      | 16  | 15  |
| 17  |  0  | GPIO. 0  | IN   | 0 | 11 || 12 | 0 | IN    | GPIO. 1  | 1   | 18  |
| 27  |  2  | GPIO. 2  | IN   | 0 | 13 || 14 |   |      | 0v        |      |      |
| 22  |  3  | GPIO. 3  | IN   | 0 | 15 || 16 | 0 | IN    | GPIO. 4  | 4   | 23  |
|      |      | 3.3v     |      |   | 17 || 18 | 0 | IN    | GPIO. 5  | 5   | 24  |
| 10  | 12  | MOSI     | ALT0 | 0 | 19 || 20 |   |      | 0v        |      |      |
|  9  | 13  | MISO     | ALT0 | 0 | 21 || 22 | 0 | IN    | GPIO. 6  | 6   | 25  |
| 11  | 14  | SCLK     | ALT0 | 0 | 23 || 24 | 1 | ALT0  | CE0      | 10  | 8   |
|      |      | 0v       |      |   | 25 || 26 | 1 | ALT0  | 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 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
开关pi@raspberrypi ~/树莓派基础套件程序资料/第十课 倾斜开关 $ gcc -Wall -o qingxie qingxie.c -lwiringPi
开关pi@raspberrypi ~/树莓派基础套件程序资料/第十课 倾斜开关 $ ls
qingxie qingxie.c
开关pi@raspberrypi ~/树莓派基础套件程序资料/第十课 倾斜开关 $ sudo ./qingxie
Raspberry Pi - Quick2Wire Analog Test
value=-1
value=-1
value=-1
value=-1
value=-1
value=-1
value=-1

```

Pic. 1

```

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

#include <stdio.h>
#include <wiringPi.h>
#include <pcf8591.h>

#define LED                6
#define Q2W_ABASE          120

int main (void)
{
    int value ;

    // Enable the on-board GPIO

    wiringPiSetup () ;

    // Add in the pcf8591 on the q2w board

    pcf8591Setup (Q2W_ABASE, 0x48) ;

    printf ("Raspberry Pi - Quick2Wire Analog Test\n") ;

    // Setup the LED

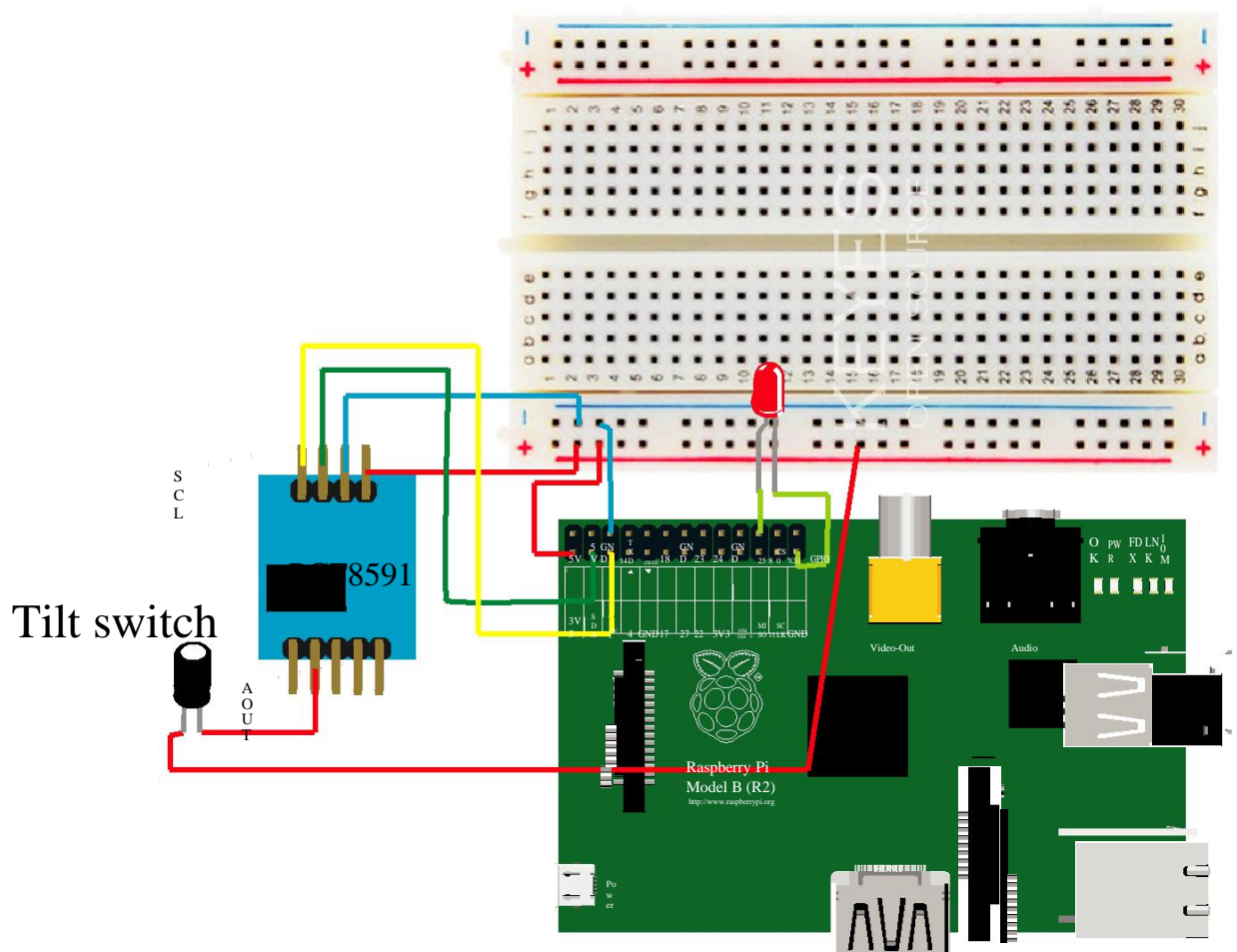
    //pinMode (LED, PWM_OUTPUT) ;
    //pwmWrite (LED, 0) ;
    pinMode (LED, OUTPUT) ;
    digitalWrite (LED, LOW) ;

    for (;;)
    {
        value = analogRead (Q2W_ABASE + 0) ;
        //pwmWrite (LED, value * 4) ;
        printf("value=%d\n",value);
    }
}

[ Read 42 lines ]
^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



Pic. 3