

Project 15: 74hc595 Serial input & parallel output driving

```
pi@raspberrypi: ~/树莓派基础套件程序资料/第十五课/74hc595IO输出扩展/串行输入并行输出/74hc595_2.c 74hc595.c guide15
pi@raspberrypi ~/树莓派基础套件程序资料/第十五课/74hc595IO输出扩展/串行输入并行输出 $ cd 第十五课/74hc595IO输出扩展/串行输入并行输出/
pi@raspberrypi ~/树莓派基础套件程序资料/第十五课/74hc595IO输出扩展/串行输入并行输出 $ ls
74hc595_2.c 74hc595.c guide15
pi@raspberrypi ~/树莓派基础套件程序资料/第十五课/74hc595IO输出扩展/串行输入并行输出 $ nano guide15
pi@raspberrypi ~/树莓派基础套件程序资料/第十五课/74hc595IO输出扩展/串行输入并行输出 $ 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	0	7	8	1	ALT0	TxD	15
		0v			9	10	1	ALT0	RxD	16
17	0	GPIO. 0	IN	0	11	12	0	IN	GPIO. 1	1
27	2	GPIO. 2	IN	0	13	14		0v		
22	3	GPIO. 3	IN	0	15	16	0	OUT	GPIO. 4	4
		3.3v			17	18	0	OUT	GPIO. 5	5
10	12	MOSI	ALT0	0	19	20		0v		
9	13	MISO	ALT0	0	21	22	1	OUT	GPIO. 6	6
11	14	SCLK	ALT0	0	23	24	1	ALT0	CE0	10
		0v			25	26	1	ALT0	CE1	11
28	17	GPIO.17	IN	0	51	52	0	IN	GPIO.18	18
30	19	GPIO.19	IN	0	53	54	0	IN	GPIO.20	20
BCM	wPi	Name	Mode	V	Physical	V	Mode	Name	wPi	BCM

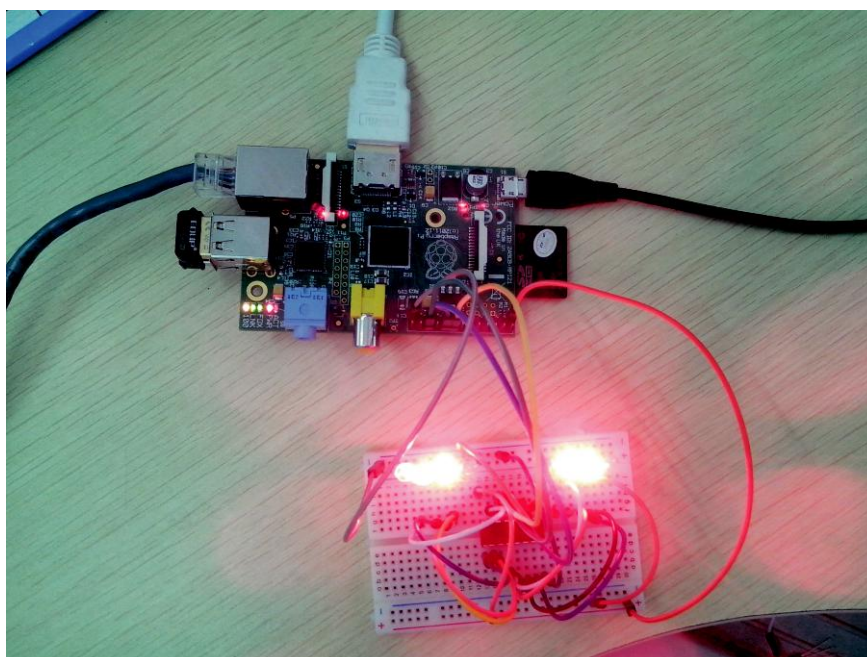
```
pi@raspberrypi ~/树莓派基础套件程序资料/第十五课/74hc595IO输出扩展/串行输入并行输出 $ gcc 74hc595.c -o 74hc595 -lwiringPi
pi@raspberrypi ~/树莓派基础套件程序资料/第十五课/74hc595IO输出扩展/串行输入并行输出 $ ls
74hc595 74hc595_2.c 74hc595.c guide15
pi@raspberrypi ~/树莓派基础套件程序资料/第十五课/74hc595IO输出扩展/串行输入并行输出 $ sudo ./74hc595
^Cpi@raspberrypi ~/树莓派基础套件程序资料/第十五课/74hc595IO输出扩展/串行输入并行输出 $
```

Pic. 1

```
pi@raspberrypi: ~/... 74hc595IO板驱动... 涓茶 板驱动...  
GNU nano 2.2.6 File: 74hc595.c  
  
#include <wiringPi.h>  
#include <wiringShift.h>  
#define data 4  
#define clock 5  
#define latch 6  
  
void updateLEDs(int value)  
{  
    digitalWrite(latch, LOW);  
    shiftOut(data, clock, MSBFIRST, ~value);  
    digitalWrite(latch, HIGH);  
}  
  
int main()  
{  
    wiringPiSetup();  
    pinMode(data, OUTPUT);  
    pinMode(clock, OUTPUT);  
    pinMode(latch, OUTPUT);  
    int i;  
    for(;;)  
    {  
        for( i=0; i<256; i++)  
        {  
            updateLEDs(i);  
            delay(500);  
        }  
    }  
}
```

^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