

单片机实验二

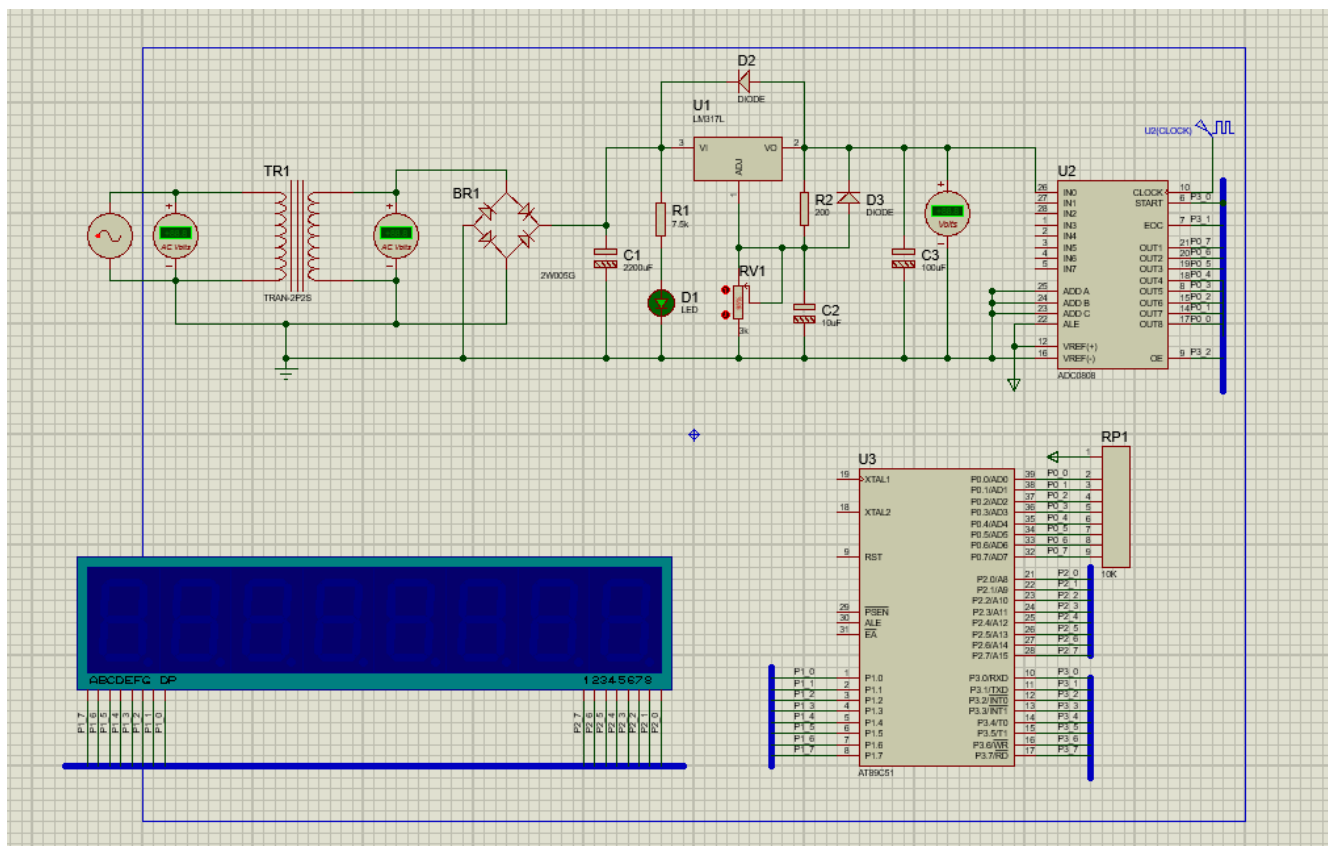
邹卫其 PB16061470

一、实验目的

- 熟悉 8051 单片机的开发、仿真环境、设计步骤和流程

二、实验内容及步骤

1、Proteus 创建电路图



2、Keil 代码

```
#include <reg51.h>
#define uint unsigned int;
#define uchar unsigned char;
```

```
uchar code table[] = {0xfc, 0x60, 0xda, 0xf2, 0x66, 0xb6, 0xbe, 0xe0, 0xfe, 0xf6, 0xee, 0x3e, 0x9c, 0x7a, 0x9e, 0x8e};
```

```
sbit START = P3^0;
sbit EOC = P3^1;
sbit OE = P3^2;
sbit dot = P1^0;
```

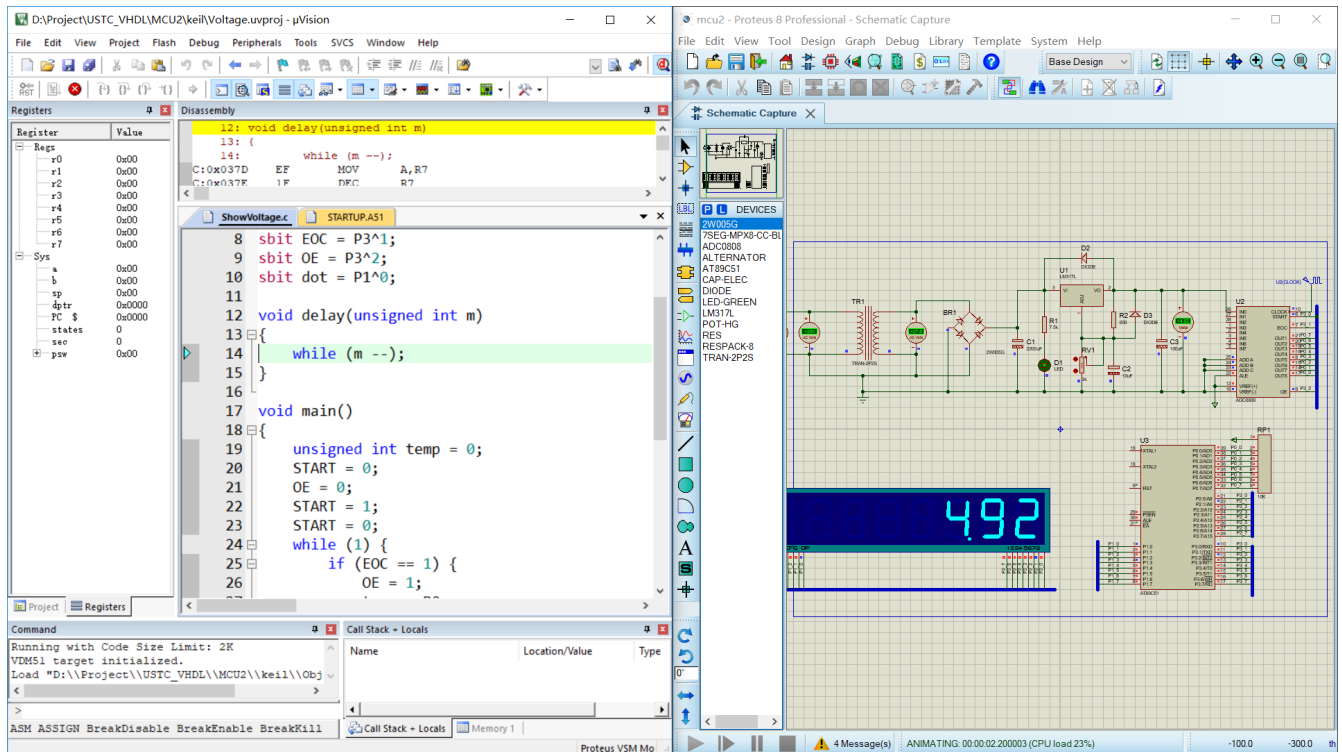
```

void delay(unsigned int m)
{
    while (m --);
}

void main()
{
    unsigned int temp = 0;
    START = 0;
    OE = 0;
    START = 1;
    START = 0;
    while (1) {
        if (EOC == 1) {
            OE = 1;
            temp = P0;
            temp = temp * 1.0/255 * 500;
            OE = 0;
            P2 = 0xfe;
            P1 = table[temp % 10];
            delay(500);
            P2 = 0xfd;
            P1 = table[temp/10 % 10];
            delay(500);
            P2 = 0xfb;
            P1 = table[temp/100 % 10];
            dot = 1;
            delay(500);
            START = 1;
            START = 0;
        }
    }
}

```

3、联调



三、实验分析

- 通过稳压电源产生电路，调整电子原件值，产生合适范围直流电压值
- 对直流电压值采样，P0 获取采样值
- 8051 单片机，通过 8 位 I/O 输出控制 7 段 LED，P2 进行片选，P1 进行输出值的控制