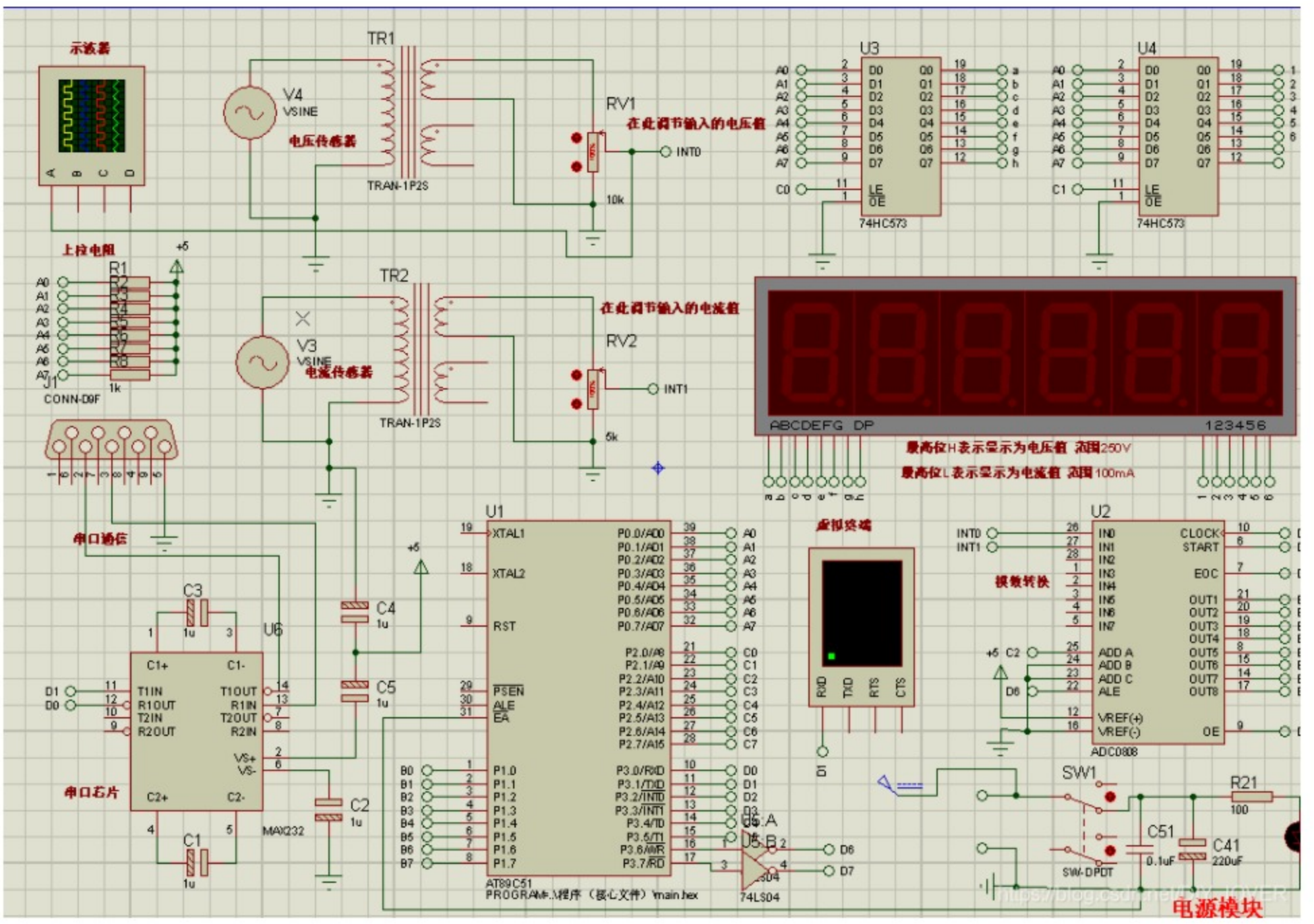
实现的功能：实时测量交流电的电流和电压值，显示在数码管和虚拟终端上。




```c
#include <reg51.h>
#include <math.h>
#define uchar   unsigned char
#define uint    unsigned int
/******六位七段共阴极数码显示管*******/
uchar code  dispbitcode[] = { 0xdf, 0xef, 0xf7, 0xfb, 0xfd, 0xfe };
uchar code  dispcode[] = { 0x3f, 0x06, 0x5b, 0x4f, 0x66, 0x6d, 0x7d, 0x07, 0x7f, 0x6f, 0x00, 0x76, 0x38 };
uchar       dispbuf[8] = { 0, 0, 0, 0, 0, 0, 0, 0 };
void caiji();


void uart();


uint    temp, temp1, temp2;
float   getdata1, getdata2, max1, max2;
uint    w;       /* 电压值，电流值切换显示所需变量 */
uchar   num = 0;
sbit    dula    = P2 ^ 0;
sbit    wela    = P2 ^ 1;
sbit    vi  = P2 ^ 2;
sbit    xuan    = P2 ^ 3;
sbit    ST  = P3 ^ 6;
sbit    OE  = P3 ^ 7;
sbit    EOC = P3 ^ 4;
sbit    clock   = P3 ^ 2;
/******主函数********/
void main()
{
    xuan    = 0;
    max1    = 0;
    max2    = 0;
    w   = 0;
    SCON    = 0x80;                     /* 串行口初始化为方式2 */
    PCON    = 0x00;
    EA  = 1;
    ES  = 1;
    ET0 = 1;
    ET1 = 1;
    TMOD    = 0x11;
    TH0 = (65535 - 10) / 256;           /* adc0809时钟 */
    TL0 = (65535 - 10) % 256;
    TH1 = (65535 - 10000) / 256;        /* 定时中断扫描时间 */
    TL1 = (65535 - 10000) % 256;
    TR0 = 1;
    TR1 = 1;
    while ( 1 )
    {
        caiji();
        uart();
    }
}


/********电压，电流传感器的数据采集*******/
void caiji()
{
    uchar i, j;
    /*电压传感器数据采集*/
    for ( j = 0; j < 10; j++ )
```

- 程序（核心文件）
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- 彩色原理图.pdf
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