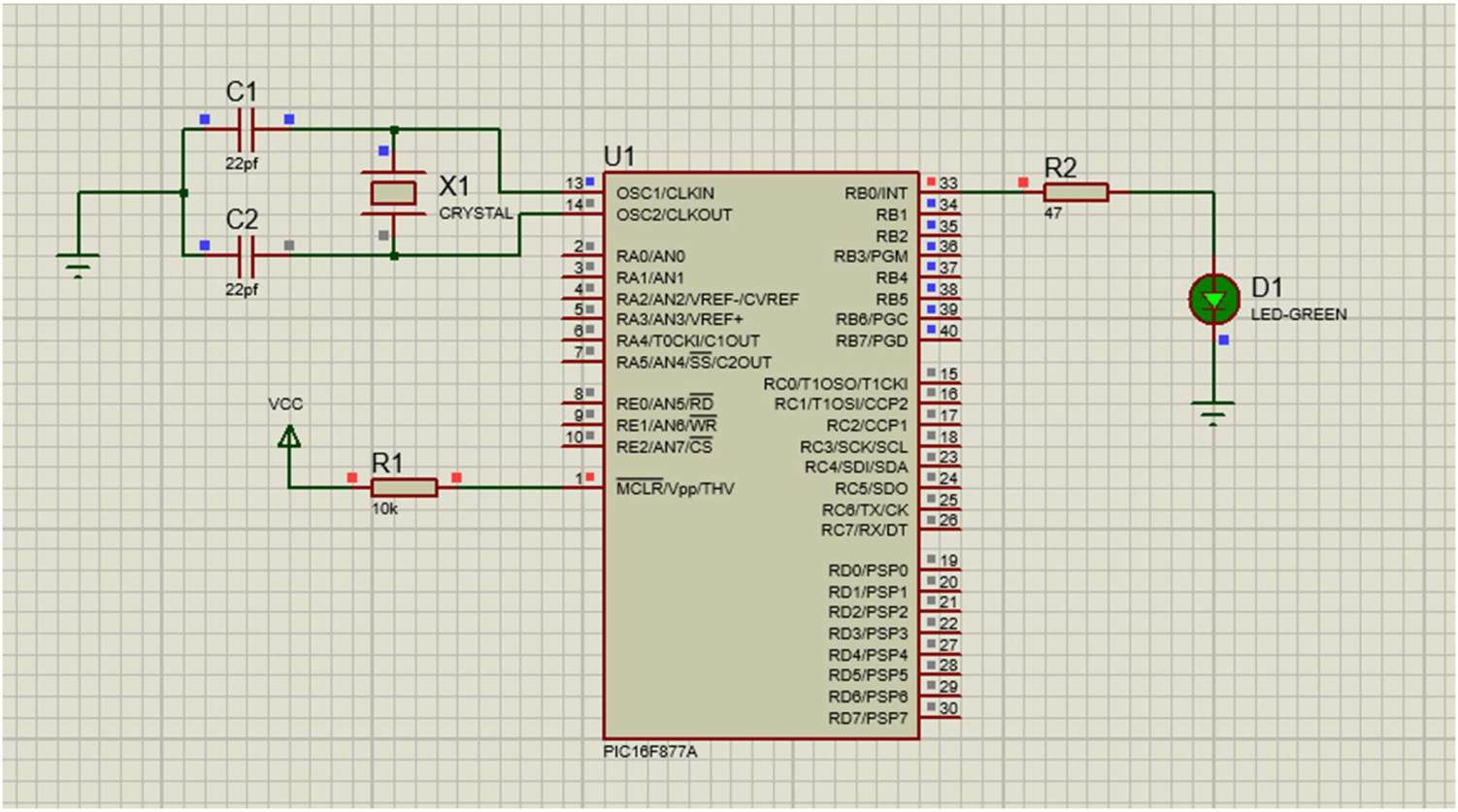
Program:

```
void main() {
      TRISB=0x00;
      PORTB=0x00;
      while(1)
      {
        portb.f0=0xff;
        delay_ms(1000);
        portb.f0=0x00;
        delay_ms(1000);
      }
}
```

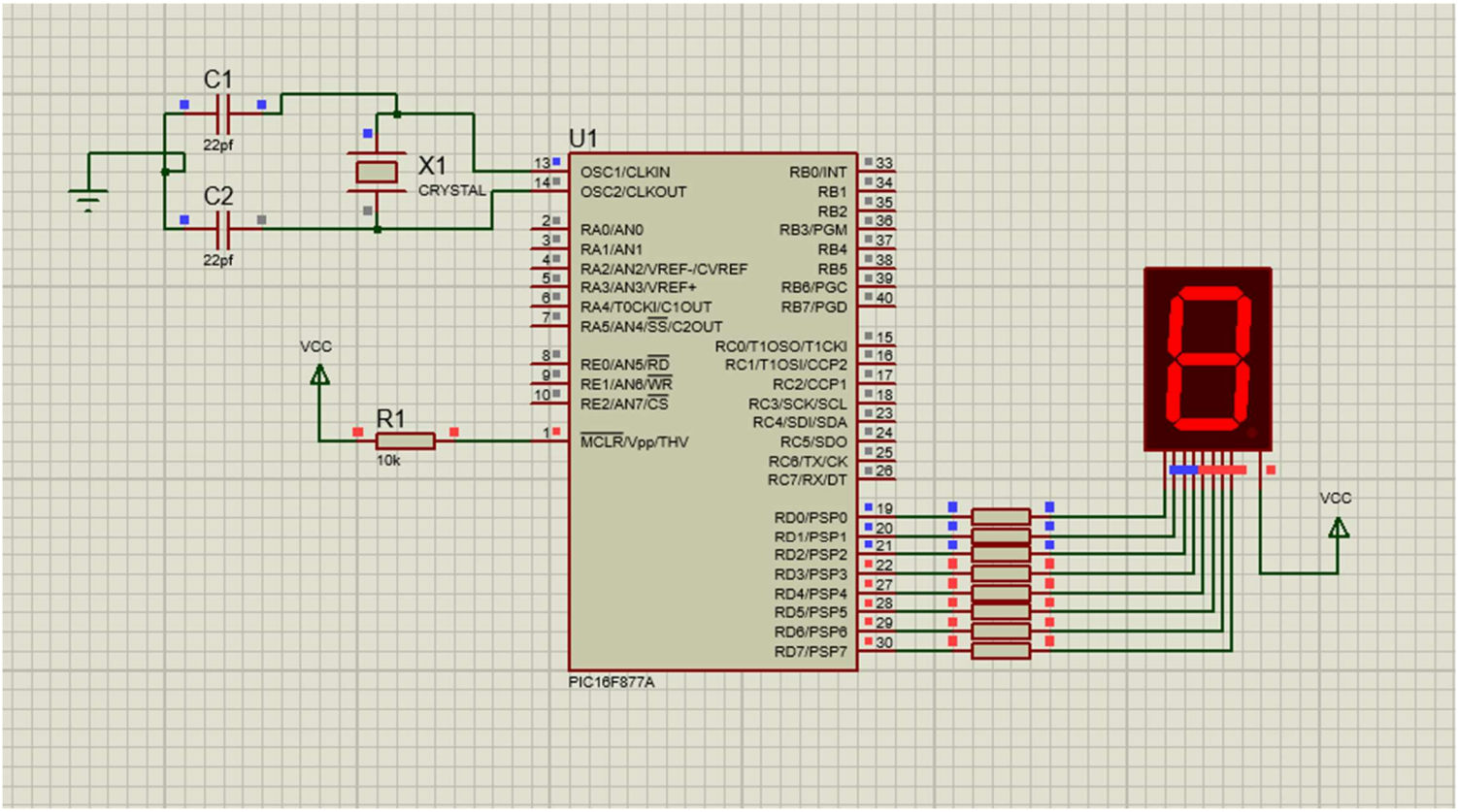
Circuit Diagram:



Program:

```
int index = 0;
char array[] = {0xC0, 0xF9, 0xA4, 0xB0, 0x99, 0x92, 0x82, 0xF8, 0x89, 0x90};

void main() {
   TRISD = 0x00;
   PORTD = 0xff;


   while(1) {
   PORTD = array[index];
   delay_ms(1000);
   index = (index + 1) % 10;
}

}
```

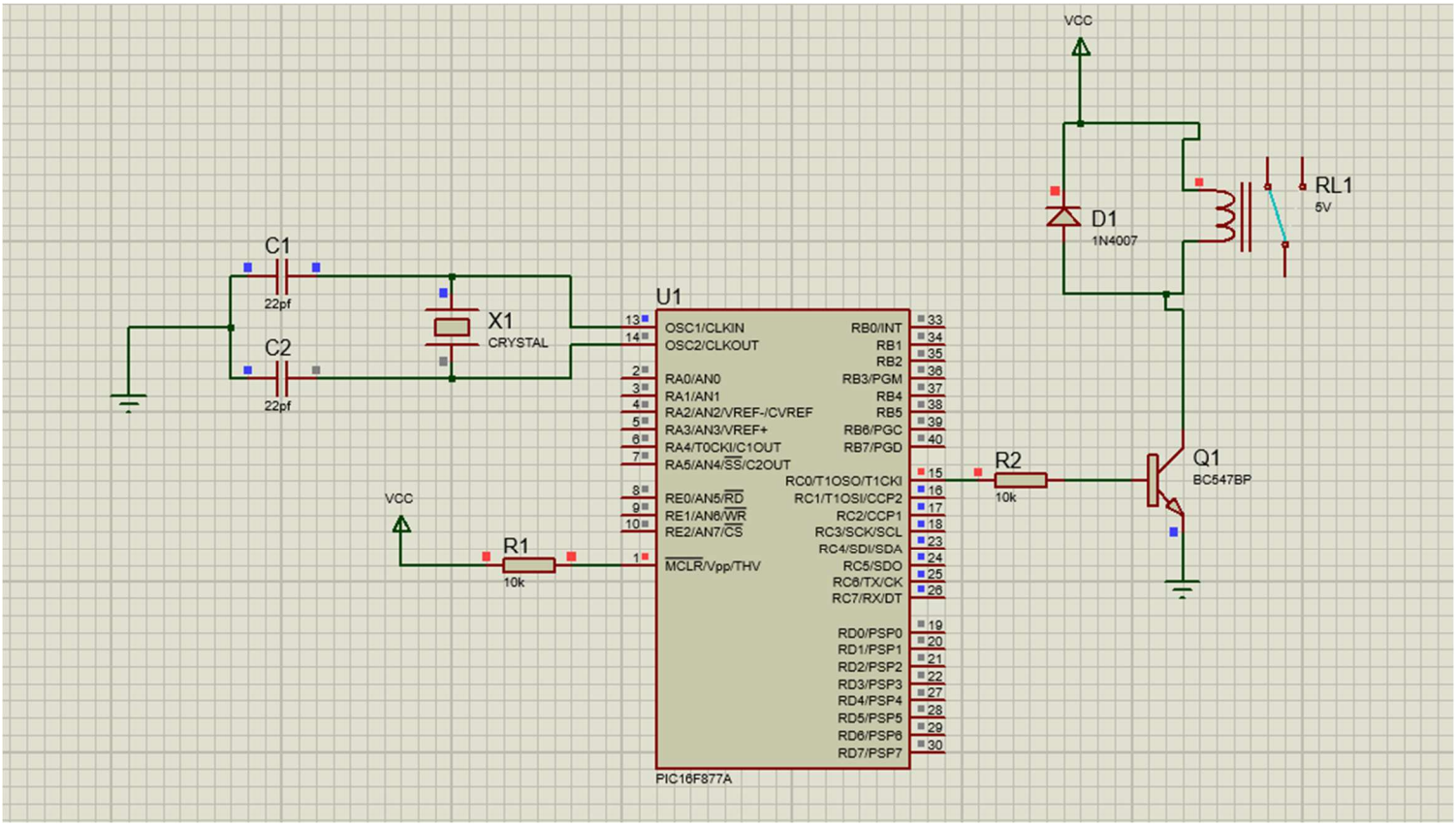
Circuit Diagram:



Program:

```
void main() {
    TRISC=0x00;
    portc=0x00;
    while(1)
    {
        portc.f0=1;
        delay_ms(1000);
        portc.f0=0;
        delay_ms(1000);
    }
}
```

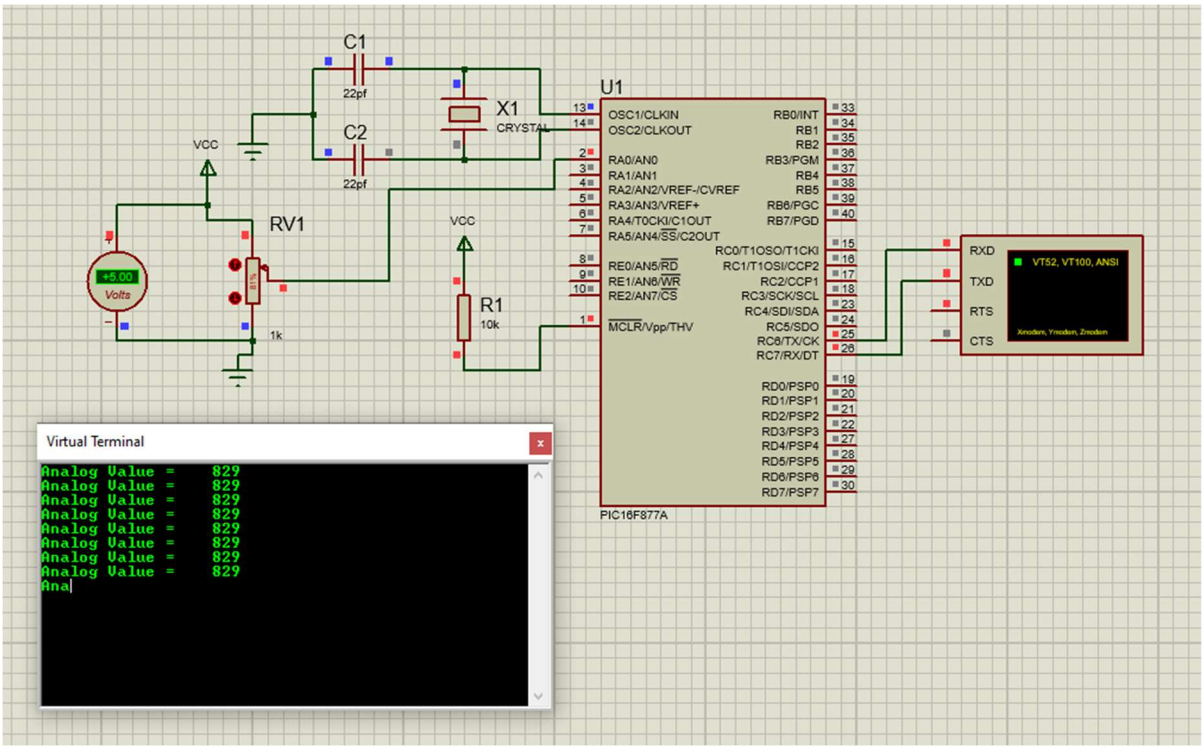
Circuit Diagram:



Program:

```
int valADC;
char x[6];


void main() {
   UART1_Init(9600);
   ADC_Init();
   while(1) {
      valADC = ADC_Read(0);
      intToStr(valADC, x);
      UART1_Write_Text("Analog Value = ");
      UART1_Write_Text(x);
      UART1_Write(13);
      UART1_Write(10);
      Delay_ms(1000);
   }
}
```

Circuit Diagram:

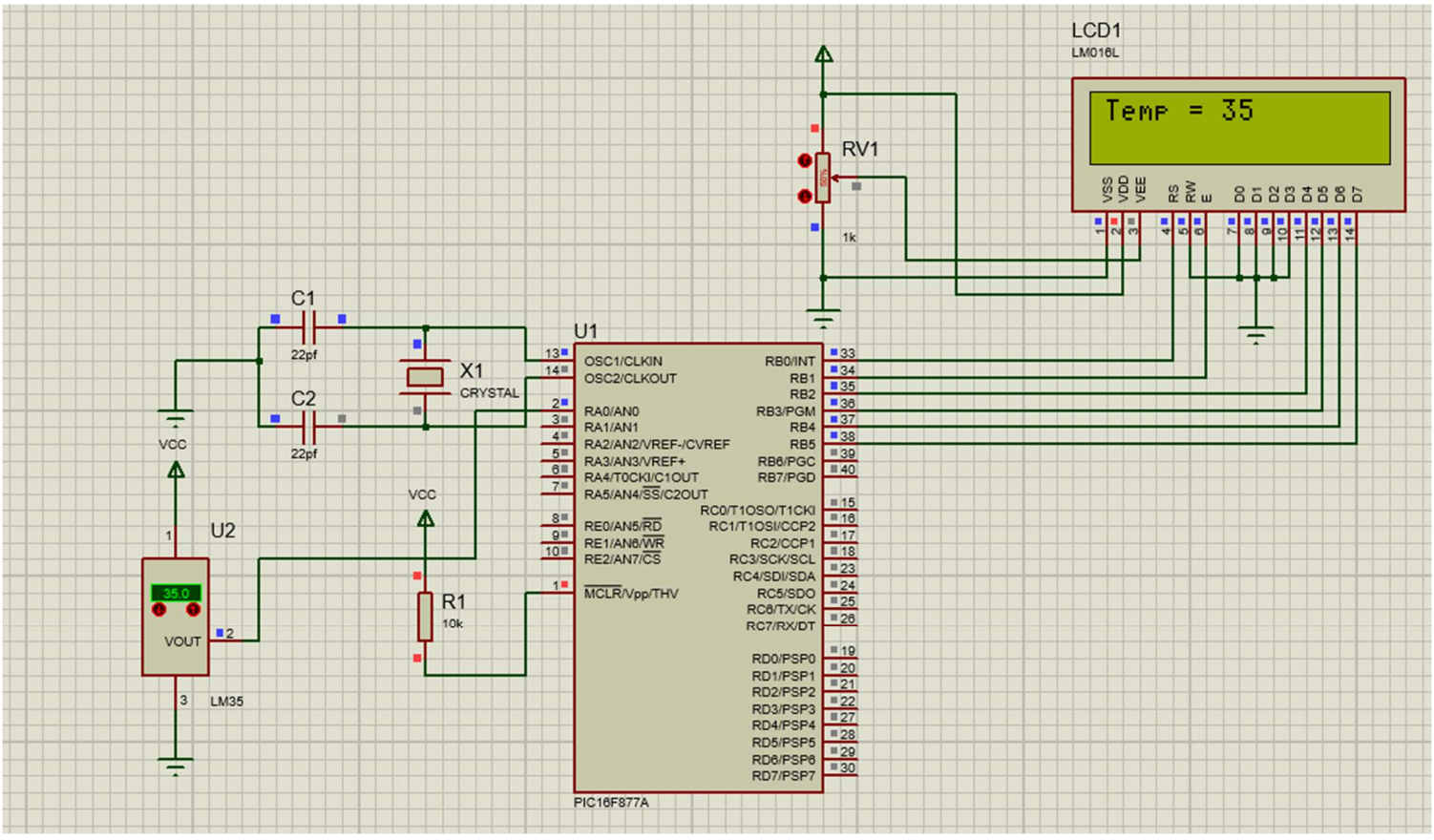


Program:

```
sbit LCD_RS at RB0_bit;
sbit LCD_EN at RB1_bit;
sbit LCD_D4 at RB2_bit;
sbit LCD_D5 at RB3_bit;
sbit LCD_D6 at RB4_bit;
sbit LCD_D7 at RB5_bit;

sbit LCD_RS_Direction at TRISB0_bit;
sbit LCD_EN_Direction at TRISB1_bit;
sbit LCD_D4_Direction at TRISB2_bit;
sbit LCD_D5_Direction at TRISB3_bit;
sbit LCD_D6_Direction at TRISB4_bit;
sbit LCD_D7_Direction at TRISB5_bit;

char display[16]="";


void main() {
    int result;
    int volt,temp;

    TRISA=0xff;
    lcd_init();
    lcd_cmd(_lcd_clear);
    lcd_cmd(_lcd_cursor_off);
    while(1)
    {
       result = adc_read(0);
```

```
        volt = result*4.88;
        temp= volt/10;

        lcd_out(1,1, "Temp = ");

        floattostr(temp,display);
        lcd_out_cp(display);

    }
}
```

Circuit Diagram:

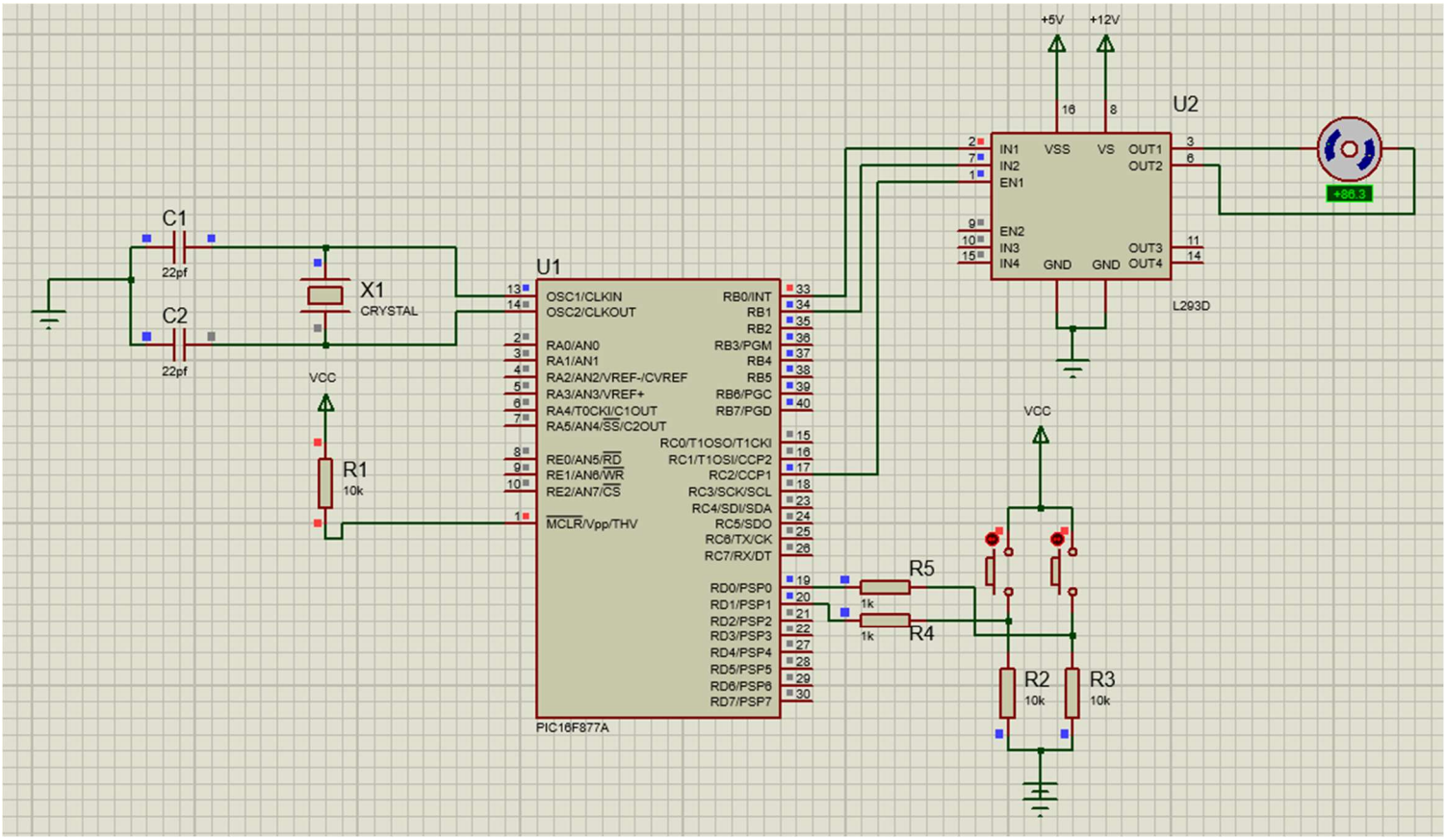


Program:

```
void main() {
    short duty = 0;
    TRISB = 0x00;
    TRISD = 0xFF;

    PORTB = 0x00;
    PORTB.F0 = 1;
    PORTB.F1 = 0;

    PWM1_Init(5000);
    PWM1_Start();
    PWM1_Set_Duty(duty);

    while (1) {

        if (PORTD.F1 == 1 && duty < 250) {
            Delay_ms(100);
            if (PORTD.F1 == 1 && duty < 250) {
                duty += 10;
                PWM1_Set_Duty(duty);
            }
        }


        if (PORTD.F0 == 1 && duty > 0) {
            Delay_ms(100);
            if (PORTD.F0 == 1 && duty > 0) {
                duty -= 10;
```

```
            PWM1_Set_Duty(duty);
        }
    }
  }
}
```

Circuit Diagram:

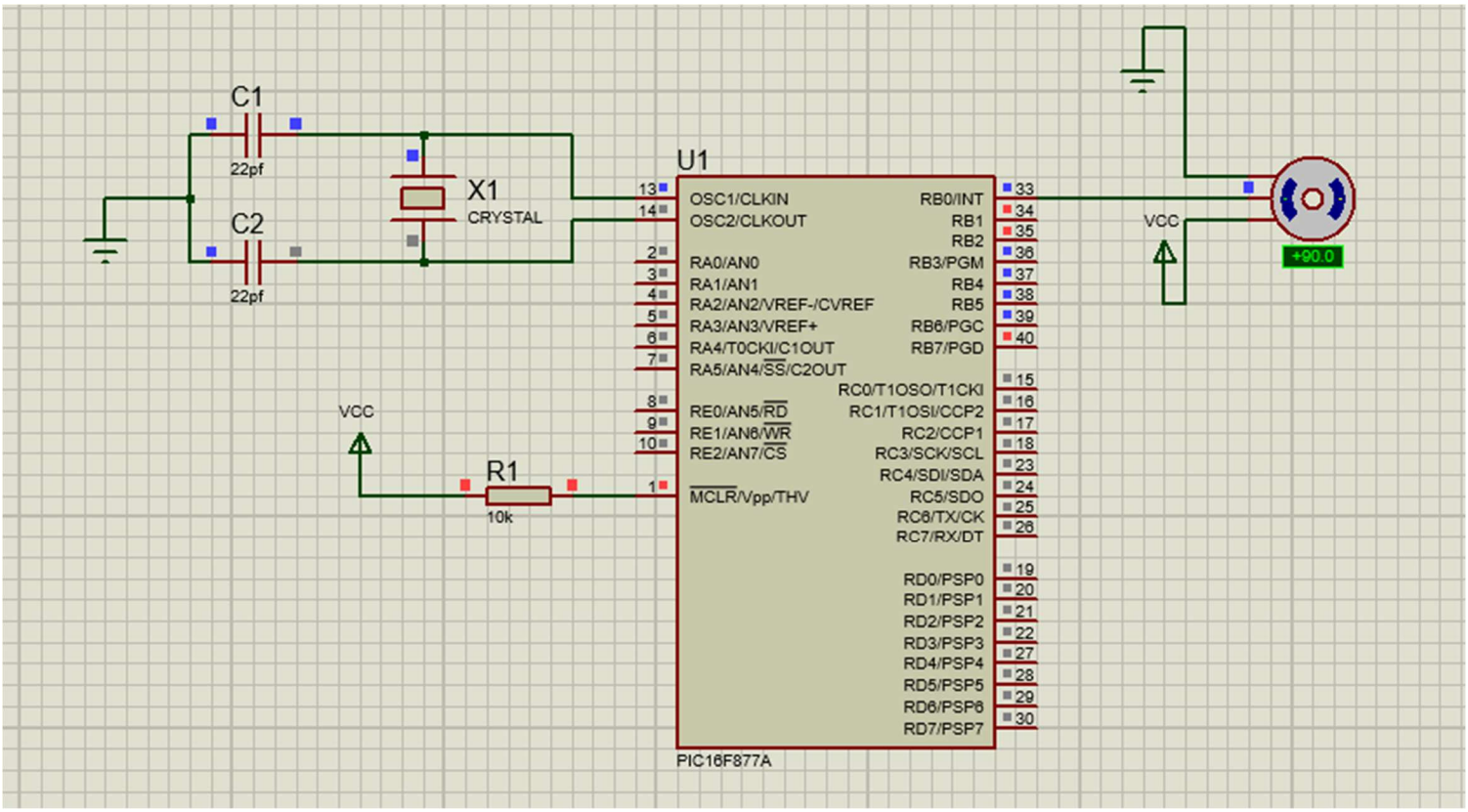


Program:

```
void rotation_0() {
   unsigned int i;
   for(i = 0; i < 50; i++) {
      portb.f0 = 1;
      delay_us(800);
      portb.f0 = 0;
      delay_us(19200);
   }
}
void rotation_90() {
   unsigned int i;
   for(i = 0; i < 50; i++) {
      portb.f0 = 1;
      delay_us(1500);
      portb.f0 = 0;
      delay_us(18500);
   }
}
void rotation_180() {
   unsigned int i;
   for(i = 0; i < 50; i++) {
      portb.f0 = 1;
      delay_us(2200);
      portb.f0 = 0;
      delay_us(17800);
   }
}
void main() {
```

```
    TRISB = 0x00;
    while(1) {
        rotation_0();
        delay_ms(2000);

        rotation_90();
        delay_ms(2000);

        rotation_180();
        delay_ms(2000);
    }
}
```

Circuit Diagram:

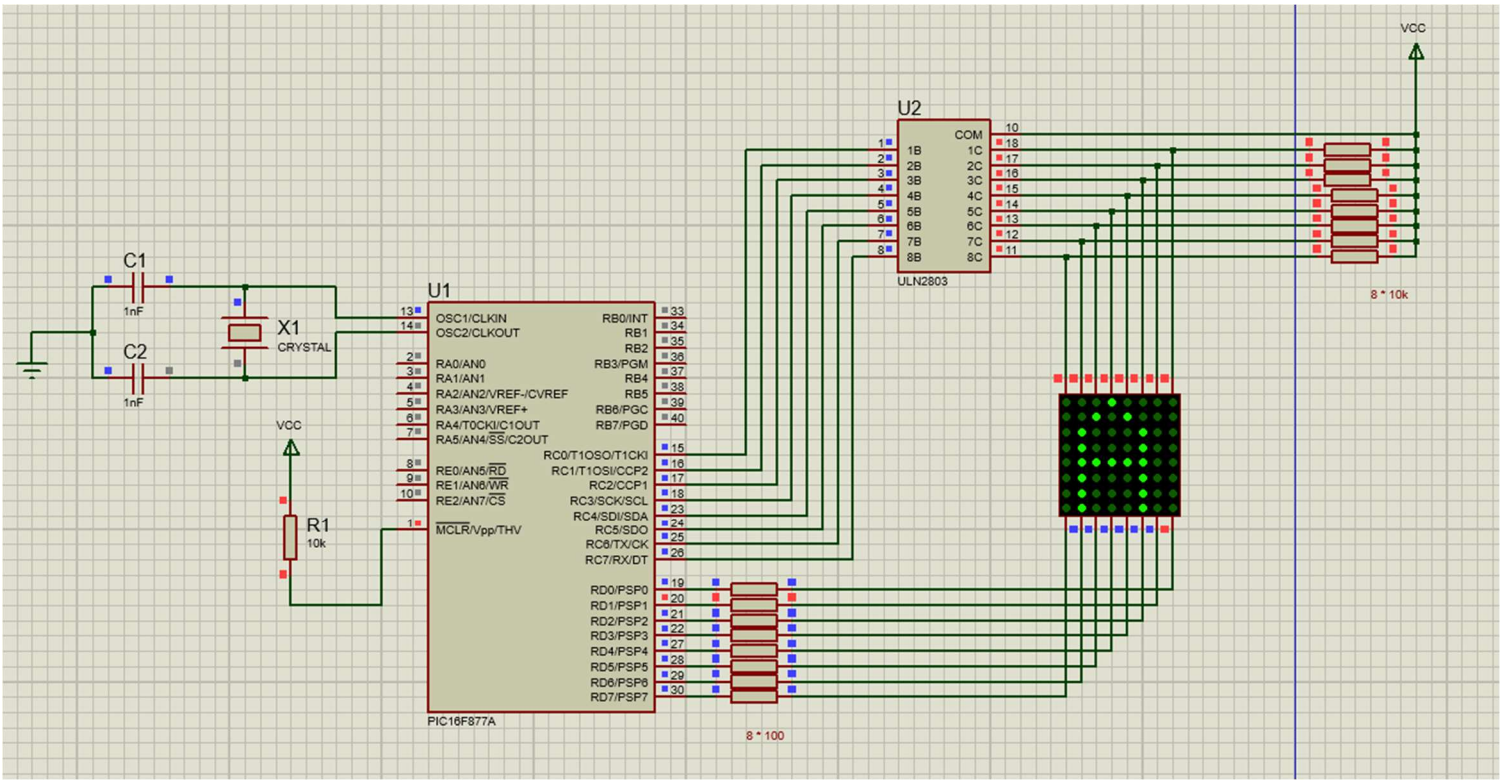


Program:

```
void MSDelay( unsigned int time)
{
    unsigned int y,z;
    for(y=0; y<time; y++)
    {
       for(z=0; z<20;z++);
    }

}

void main() {
       TRISC=0x00;
       TRISD=0x00;
       while(1)
       {
           portd=0b10000000;
           portc=0b00000000;
           MSDelay(10);
           portd=0b01000000;
           portc=0b00111111;
           MSDelay(10);
           portd=0b00100000;
           portc=0b01001000;
           MSDelay(10);
           portd=0b00010000;
           portc=0b10001000;
           MSDelay(10);
           portd=0b00001000;
```

```
        portc=0b01001000;
        MSDelay(10);
        portd=0b00000100;
        portc=0b00111111;
        MSDelay(10);
        portd=0b00000010;
        portc=0b00000000;
        MSDelay(10);
        portd=0b00000001;
        portc=0b00000000;
        MSDelay(10);

    }
}
```

Circuit Diagram:



Program:

```
void main()
{
    TRISD = 0x00;
    PORTD = 0x00;
    while(1)
    {
        PORTD = 0b00001001;
        Delay_ms(500);
        PORTD = 0b00001100;
        Delay_ms(500);
        PORTD = 0b00000110;
        Delay_ms(500);
        PORTD = 0b00000011;
        Delay_ms(500);
    }
}
```

Circuit Diagram: