

211039016

Q2. Counter using 7-Segment display

```
#include<lpc21xx.h>
```

```
void delay(int);
```

```
int main()
```

```
{
```

```
    PINSEL0=0x00000000;
```

```
    PINSEL1=0x00000000;
```

```
    IOODIR=0x0000FFFF;
```

```
while(1)
```

```
{
```

```
    int i, j;
```

```
    int a[]={0xC0,0xF9,0xA4,0xB0,0x99,0x92,0x82,0xF8,0x80,0x90};
```

```
    int b[]={0xC0,0xF9,0xA4,0xB0,0x99,0x92,0x82,0xF8,0x80,0x90};
```

```
    for(i=0;i<10;i++)
```

```
    {
```

```
        IOOSET=IOOSET|a[i];
```

```
        for(j=0;j<10;j++)
```

```
        {
```

```
            IOOSET= IOOSET |(b[j]<<8);
```

```

        delay(50000);

        IO0CLR= IO0CLR | (b[j]<<8);

    }

    IO0CLR=IO0CLR|a[i];

}

}

```

```

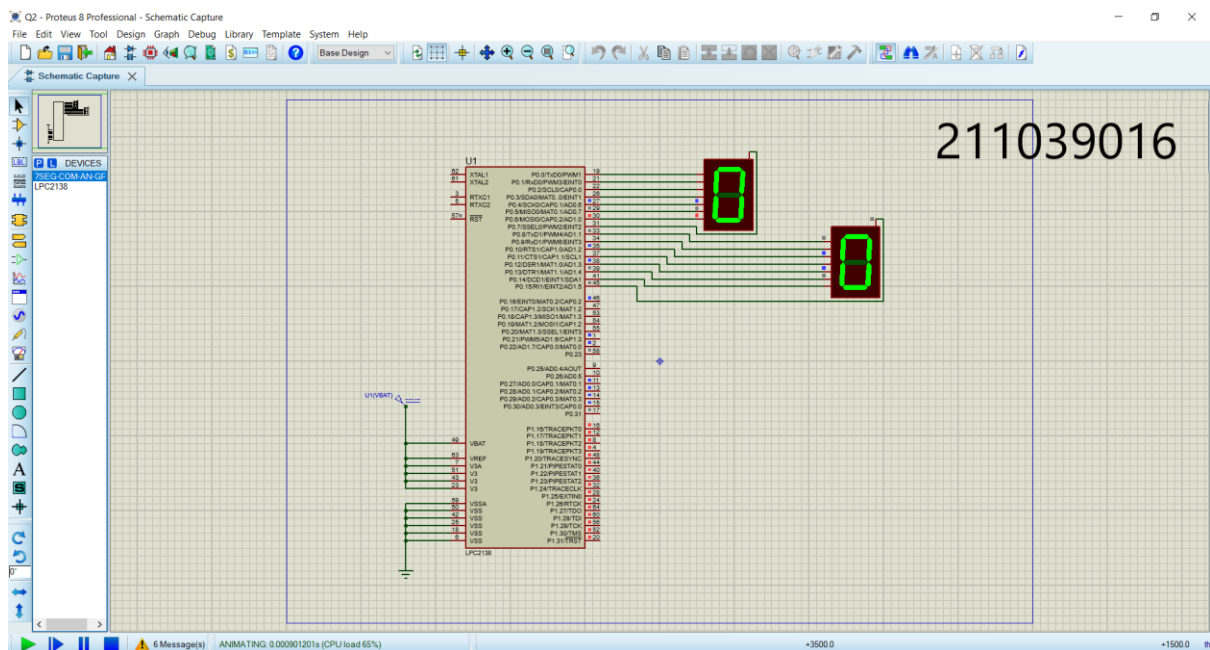
void delay(int x)

{

    for(x=1;x<=50000;x++);

}

```



Q1

```
#include<lpc214x.h>

void delay(unsigned int z);
void pll();
int main(void)
{
    IOODIR=0xffffffff;
    IO1DIR = 0x0;
    pll();
    while(1) {
        if((IO1PIN & (1<<16)) ==0)
        {
            IO0SET=0x000000ff;
            delay(1000);
            IO0CLR=0x000000ff;
            delay(1000);
        }
        if((IO1PIN & (1<<17)) ==0)
        {
            IO0SET=0x0000ff00;
            delay(500);
            IO0CLR=0x0000ff00;
            delay(500);
        }
    }
}

void pll()
```

```
    PLL0CON=0x01;
    PLL0CFG=0x24;
    PLL0FEED=0xaa;
    PLL0FEED=0x55;
    while(!(PLL0STAT&(1<<10)));
    PLL0CON=0x03;
    PLL0FEED=0xaa;
    PLL0FEED=0x55;
    VPBDIV=0x01;
}
void delay(unsigned int z)
{
    TOCTCR=0x0;
    TOTCR=0x00;
    TOPR=59999;
    TOTCR=0x02;
    TOTCR=0x01;
    while(TOTC<z);
    TOTCR=0x00;
    TOTC=0;
}
```

