

Program 1-

- ```
#include<lpc214x.h>
void delay(unsigned int z);
void pll();
int main(void)
{
 IO0DIR=0xffffffff;
 IO1DIR = 0x0;
 pll(); //Fosc=12Mhz,CCLK=60Mhz,PCLK=60MHz
 while(1) {
 if((IO1PIN & (1<<16)) ==0)
 {
 IO0SET=0x000000ff;
 delay(1000); //1sec delay
 IO0CLR=0x000000ff;
 delay(1000);
 }
 if((IO1PIN & (1<<17)) ==0)
 {
 IO0SET=0x0000ff00;
 delay(500); //500msec delay
 IO0CLR=0x0000ff00;
 delay(500);
 }
 }
}

void pll() //Fosc=12Mhz,CCLK=60Mhz,PCLK=60MHz
{
 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)
{
 T0CTCR=0x0; //Select Timer Mode
 T0TCR=0x00; //Timer off
 T0PR=59999; //Prescaler value for 1ms
 T0TCR=0x02; //Timer reset
 T0TCR=0x01; //Timer ON
 while(T0TC<z);
 T0TCR=0x00; //Timer OFF
 T0TC=0; //Clear the TC value. This is Optional.
}
```



program 2-implement a 00-99 counter(up counter) using two 7segment display.

```
#include<lpc214x.h>

void delay(unsigned int t);

int main()
{
 unsigned int ch[]={0xC0,0xF9,0xA4,0xB0,0x99,0x92,0x82,0xF8,0x80,0x90};
 unsigned int i,j;
 int P3=0xc0;
 int P2=0xc0;
 while(1)
 {
 for(j=0;j<10;j++)
 {
 for(i=0;i<10;i++)
 {
 P3=ch[i];
 delay(50);
 }
 if(j!=10)
 P2=ch[j+1];
 }
 if(i==10&& j==10)
 {
 P3=0xc0;
 P2=0xc0;
 }
 }

 void delay(unsigned int t)
```

```

{
unsigned int i,j;

for(i=0;i<t;i++)

for(j=0;j<1275;j++);

}

```

## OUTPUT:

