

# MCA LAB INTERNALS

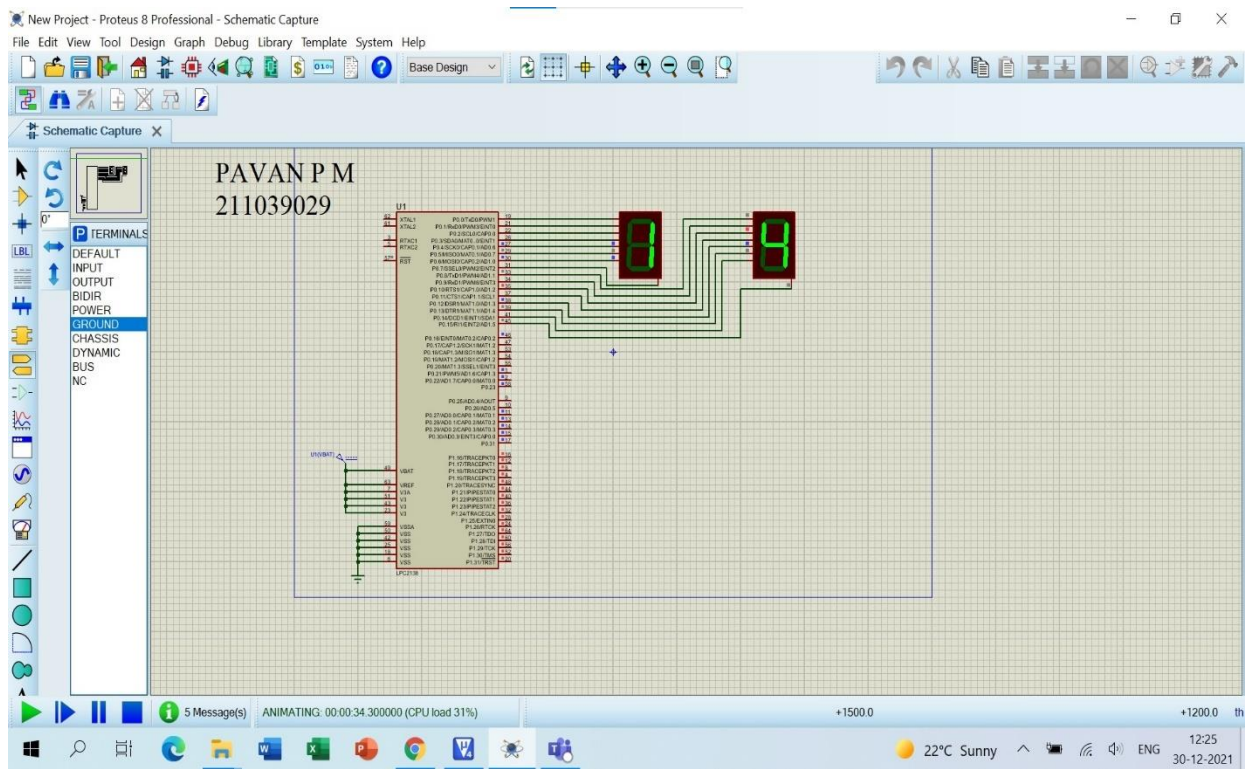
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2.

```
#include<lpc21xx.h>  
void delay(unsigned int c)  
{unsigned int a;  
for(a=1;a<=60000;a++);}   
int main()  
{  
PINSEL0=0x00000000;  
PINSEL1=0x00000000;  
PINSEL2=0x00000000;  
IO0DIR|=0xffffffff;  
while(1)  
{ unsigned long int j;  
int i,a[]={0x3f,0x06,0x5B,0x4F,0x66,0x6D,0x7D,0x07,0x7F,0x6F};  
for(j=0;j<10;j++)  
{ IO0SET=IO0SET|a[j];  
for(i=0;i<10;i++)  
{  
IO0SET= IO0SET|(a[i]<<8);  
delay(100000);  
IO0CLR= IO0CLR|(a[i]<<8);  
}  
IO0CLR=a[j];  
}  
}  
}
```

## OUTPUT :



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.
}

```

# OUTPUT :

