

MCA LAB INTERNALS

Name : Bharath P H

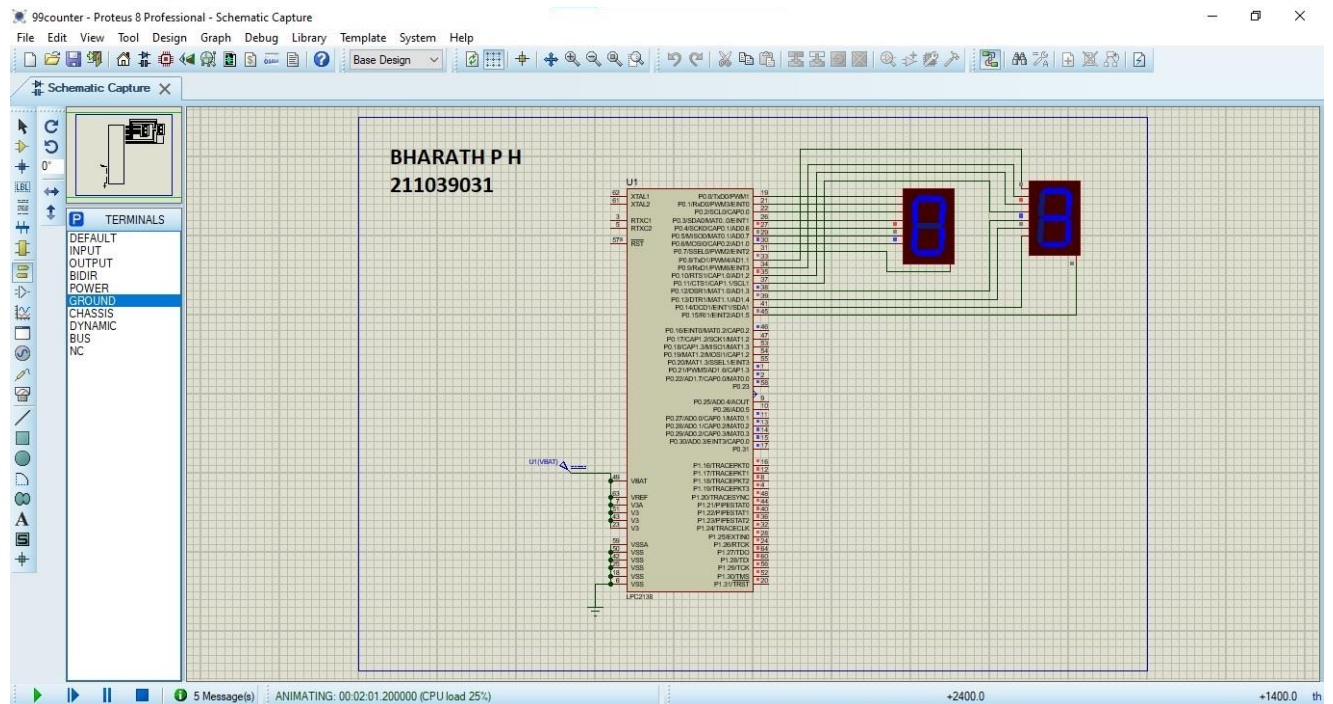
Reg number: 211039031

2.

```
#include<lpc21xx.h>

void delay(unsigned int c) // delay function
{
    for(c=1;c<=60000;c++);
}

int main()
{
    PINSEL0=0x00000000; //selecting port 0
    IO0DIR|=0xffffffff; //selecting pins as output
    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(600000);
                IO0CLR= IO0CLR|(a[i]<<8);
            }
            IO0CLR=a[j];
        }
    }
}
```



1.

```
#include<lpc214x.h>
```

```
void delay(unsigned int z);
```

```
void pll();
```

```
int main(void)
```

$$\{$$

```
IO0DIR=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)
{
    T0CTCR=0x0;
    T0TCR=0x00;
    T0PR=59999;
    T0TCR=0x02;
    T0TCR=0x01;
    while(T0TC<z);
    T0TCR=0x00;
    T0TC=0;
}

```

The screenshot shows the Proteus 8 Professional Schematic Capture window. The circuit diagram is titled "BHARATH P H 211039031". The microcontroller (U1) is a PIC18F4550. The circuit includes two LEDs (D1, D2), a push button (P1), and a power supply (V1). The microcontroller is labeled "BHARATH P H 211039031". The schematic is displayed on a grid background.

Component List:

- U1: PIC18F4550 (Microcontroller)
- D1: LED-YELLOW
- D2: LED-YELLOW
- P1: 100K (Push Button)
- V1: 5VDC (Power Supply)

Pin Connections:

- U1 Pin 1 (XTAL1) to D1
- U1 Pin 2 (XTAL2) to D2
- U1 Pin 3 (VDD) to V1
- U1 Pin 4 (GND) to GND
- U1 Pin 5 (VDD) to V1
- U1 Pin 6 (GND) to GND
- U1 Pin 7 (VDD) to V1
- U1 Pin 8 (GND) to GND
- U1 Pin 9 (VDD) to V1
- U1 Pin 10 (GND) to GND
- U1 Pin 11 (VDD) to V1
- U1 Pin 12 (GND) to GND
- U1 Pin 13 (VDD) to V1
- U1 Pin 14 (GND) to GND
- U1 Pin 15 (VDD) to V1
- U1 Pin 16 (GND) to GND
- U1 Pin 17 (VDD) to V1
- U1 Pin 18 (GND) to GND
- U1 Pin 19 (VDD) to V1
- U1 Pin 20 (GND) to GND
- U1 Pin 21 (VDD) to V1
- U1 Pin 22 (GND) to GND
- U1 Pin 23 (VDD) to V1
- U1 Pin 24 (GND) to GND
- U1 Pin 25 (VDD) to V1
- U1 Pin 26 (GND) to GND
- U1 Pin 27 (VDD) to V1
- U1 Pin 28 (GND) to GND
- U1 Pin 29 (VDD) to V1
- U1 Pin 30 (GND) to GND
- U1 Pin 31 (VDD) to V1
- U1 Pin 32 (GND) to GND
- U1 Pin 33 (VDD) to V1
- U1 Pin 34 (GND) to GND
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- U1 Pin 38 (GND) to GND
- U1 Pin 39 (VDD) to V1
- U1 Pin 40 (GND) to GND
- U1 Pin 41 (VDD) to V1
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- U1 Pin 93 (VDD) to V1
- U1 Pin 94 (GND) to GND
- U1 Pin 95 (VDD) to V1
- U1 Pin 96 (GND) to GND
- U1 Pin 97 (VDD) to V1
- U1 Pin 98 (GND) to GND
- U1 Pin 99 (VDD) to V1
- U1 Pin 100 (GND) to GND