

MAIN PROGRAM:-

```

#include "config.h" //include the user defined header file
// #include <xc.h>
#include "leddriver.h" //include the driver file
#define _XTAL_FREQ 6000000 //initialize the clock speed
unsigned char *prb=0x06; //create a pointer variable and store the address of portb
void main()
{
    init(); //call the init function

    while(1)
        swb(*prb); //call the swb function with argument of portb address
}

```

GUARD PROGRAM:-

```

#ifndef XC_HEADER_TEMPLATE_H
#define XC_HEADER_TEMPLATE_H

#include <xc.h> // include processor files - each processor file is guarded.
void init();
void swb(int i);

#endif /* XC_HEADER_TEMPLATE_H */

```

FUNCTION PROGRAM:

```

// #include <xc.h>
#include "leddriver.h" //include the user defined header file
unsigned char *trb=0x86,*trc=0x87,*prb=0x06,*prc=0x07,*oprg=0x81; //create a pointer variable

void init()
{
    *trb=0xF0; //set the direction of the port b
    *oprg=0x7F; //enable the pull up resistor
    *prb=0x00; //clear the portb
    *trc=0x00; //set portc all as output
    *prc=0x00; //clear the portc
}

void swb(int i)
{
    switch(i) //switch case pass the i
    {
        case 0xE0:
            *prc=0x04; //to turn on or turn off the led
            break;
        case 0xD0:
            *prc=0x02; //to turn on or turn off the led
            break;
        case 0xB0:
            *prc=0x00; //to turn on or turn off the led
            break;
        case 0x70:
            *prc=0x06; //to turn on or turn off the led
            break;
    }
}

```