

Name:-  
Roll\_no:-  
Subject:-  
Class:-

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EXPERIMENT NO:-7

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**Relay ,Buzzer, LED Program**

```
#include<P18f4550.h>

#define lrbits PORTAbits.RA2

#define rlbits PORTAbits.RA3

#define buzzer PORTAbits.RA5

#define relay PORTAbits.RA4

//Function Definitions

voidmsdelay (unsigned int time)//Function for delay
{
    unsignedint i, j;
    for (i = 0; i < time; i++)
    {
        for (j = 0; j < 275; j++);    //Calibrated for a 1 ms delay in MPLAB
    }
}

void main()
{
    unsigned char val=0;

    INTCON2bits.RBPU=0;

    ADCON1=0x0F;    //set pins as digital

    TRISAbits.TRISA2=1;    //set RA2 as input (SW1=lrbits)
```

```

TRISAbits.TRISA3=1;    //set RA3 as input (SW2=rlbits)

TRISAbits.TRISA5=0;    // set Buzzer pin RA5 as output

TRISAbits.TRISA4=0;    // set Relay pin RA4 as output

TRISB=0x00;           //PortB as output

PORTB=0x00;

buzzer=0;

relay=0;

while(1)
{
    if(!lrbits)        //To check whether SW1 is pressed
    val=1;

    if (!rlbits)        //To check whether SW2 is pressed

        val = 2;

    if (val == 1)
    {
        buzzer = 1;    //Buzzer ON

        relay = 1;     //Relay ON

        PORTB = PORTB >>1;    //Shift left by 1 bit

        if (PORTB == 0x00)

            PORTB = 0x80;    // Make the MSB bit equal to 1

        msdelay(250);

    }

    if (val == 2)
    {
        buzzer = 0;    //Buzzer OFF

        relay = 0;     //Relay OFF
    }
}

```

```
PORTB = PORTB<<1;    //Shift right by 1 bit

if (PORTB == 0x00)

    PORTB = 0x01;      // Make the LSB bit eqaul to 1

    msdelay(250);

}

}

} //End of the Program
```