Experiment 6

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Aim: To perform operations with 8051 using Keil software **Procedure:**

1. **Code 1:**

```
#include<reg51.h>
void delay_ms(unsigned int j);    //Delay function declaration
sbit toggle=P1^0;          //define name for Port bit

void main(void)
{
  unsigned int z;        //initialize varible..
  //P1=0xFF;
  P1=0x00;          //configure Port 1 As output port.
  for(z=50000;z>0;z--)    //(toggle P1 Bits 15times
  {
    toggle=0;       //send data to port 1 pin 0.
    delay_ms(1000);     //wait some time (delay=1sec).
    toggle=1;       //send another data for toggle the bits.
    delay_ms(1000);     //wait some time (delay=1sec).
   }
}

void delay_ms(unsigned int j)     // DELAY = 1ms
{
  unsigned int i;
  for(;j>0;j--)
  {
    for(i=250;i>0;i--)
    {}
    //for(i=250;i>0;i--)
    //{}

  }
}
```

Code 2:

```
#include<reg51.h>
void delay_ms(unsigned int j);    //Delay function declaration
sbit toggle=P1^0;         //define name for Port bit

void main(void)
{
  P1=0xFF;
  //P1=0x00;          //configure Port 1 As output port.
  while(1)         //(toggle P1 Bits continously
  {
    toggle=0;       //send data to port 1 pin 0.
    delay_ms(250);      //wait some time (delay=1sec).
    toggle=1;       //send another data for toggle the bits.
    delay_ms(250);      //wait some time (delay=1sec).
   }
}


void delay_ms(unsigned int j)     // DELAY = 1ms
{
  unsigned int i;
  for(;j>0;j--)
  {
    for(i=250;i>0;i--);
    //{}
    //for(i=250;i>0;i--)
    //{}

  }
}
```

Code 3:

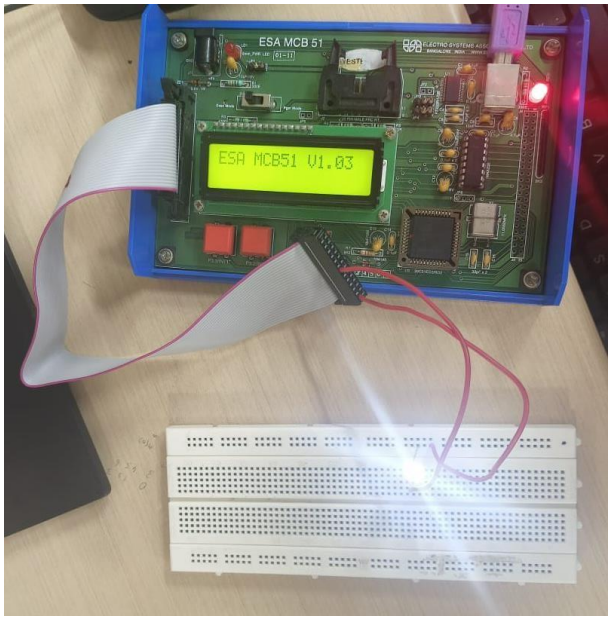
```
#include<reg51.h>
void delay_ms(unsigned int j);    //Delay function declaration
sbit toggle=P1^0;         //define name for Port bit

void main(void)
{
  unsigned int z;        //initialize varible..
  //P1=0xFF;
  P1=0x00;          //configure Port 1 As output port.
  for(z=0;z<15;z++)  //(toggle P1 Bits 15times
  {
    toggle=0;       //send data to port 1 pin 0.
    delay_ms(1000);     //wait some time (delay=1sec).
    toggle=1;       //send another data for toggle the bits.
    delay_ms(1000);     //wait some time (delay=1sec).
   }
}

void delay_ms(unsigned int j)     // DELAY = 1ms
{
  unsigned int i;
  for(;j>0;j--)
  {
    for(i=250;i>0;i--)
    {}
    //for(i=250;i>0;i--)
    //{}

  }
```

Hardware:


ESA MCB 51
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