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Assignment No: 07

Aim: Write an Embedded C program for Timer programming ISR based buzzer on/off.

Program (Memory transfer):

```
#include <xc.h>
```

```
#include<pic18f4550.h>
```

```
#define Buzzer LATAbits.LATA5 //define buzzer pin
```

```
unsigned int count=0;
```

```
void Timer1ISR(){
```

```
if(TMR1IF==1){
```

```
TMR1L=0x20;
```

```
TMR1H=0xD1;
```

```
count++;
```

```
if(count>=1000)
```

```
{
```

```
//measure upto 1000 ms i.e. 1 seconds
```

```
Buzzer=~Buzzer; //Toggle buzzer pin
```

```
count=0;

}

TMR1IF=0;
}
}
void main(void)
{
TRISB=0; //set as output

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

GIE=1;

PEIE=1;

TMR1IE=1;

TMR1IF=0;

/*Enable 16 bit TMR1 register, no pre-scaler, internal clock, timer OFF*/

T1CON=0x80;

TMR1L=0x20;

TMR1H=0xD1;

TMR1ON=1;

while(1);

return;

}

}
```

