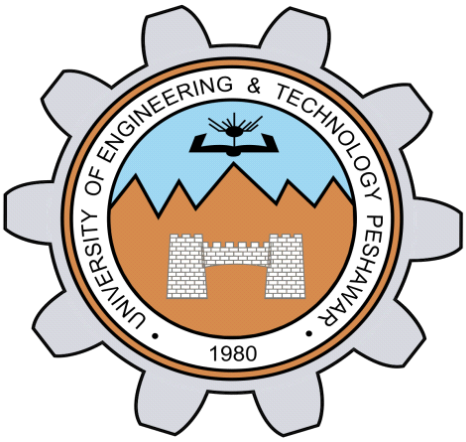
Task no 3



Microprocessor Based System Design

Spring 2022

Submitted by

Name **Registration no**

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Submitted to: **Dr Bilal Habib**

Department of Computer System Engineering

Code: -

```
#incountlude <reg51.h>
#incountlude <stdio.h>
sbit pin1 = P1^1;
sbit PIN2= P1^2;
int COUNT = 0;
unsigned int CHANGE = 0;
void start_timer0(void){
TR0 = 1;
}
void timer0 (void) interrupt 1
{
if(COUNT==0)
 {
 if(pin1==0 && CHANGE==0)
 {

 pin1=1;
TH0 = 0xD8;
TL0 = 0xEF;
}
else {
 CHANGE++;
 pin1=0;
 if(CHANGE==9)
 {
 CHANGE=0;
```

```
 }
TH0 = 0xD8;
TL0 = 0xEF;
}
}
else if(COUNT==1)
 {
if(pin1==1)
{
TH0 = 0x63;
TL0 = 0xBF;
}
else {

TH0 = 0xD8;
TL0 = 0xEF;
}
pin1 = ~pin1;
}
else if(COUNT==2)
 {
if(pin1==1)
{
TH0 = 0xC5;
TL0 = 0x67;
}
else {
TH0 = 0xD8;
TL0 = 0xEF;
```

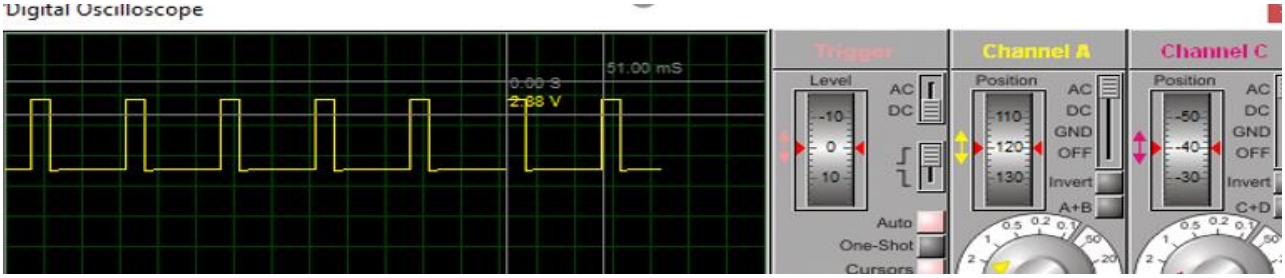
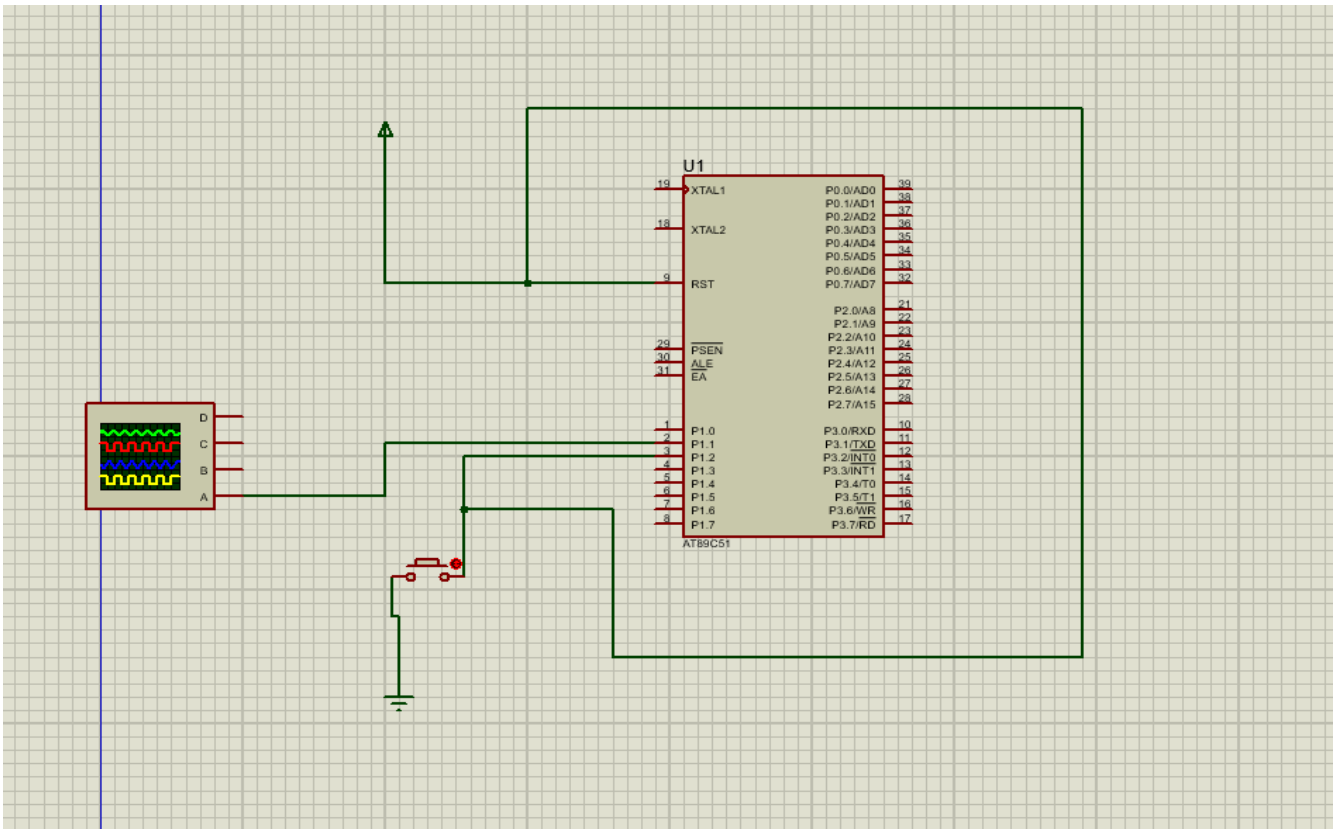
```
}
pin1 = ~pin1;
}
else if(COUNT==3)
 {
if(pin1==1)
{
TH0 = 0xF6;
TL0 = 0x3B;
}
else
{
TH0 = 0xD8;
TL0 = 0xEF;
}
pin1=~pin1;
}
}
void init_timer0(void){
TMOD = 0x01;
TH0 = 0xFB;
TL0 = 0x9A;
IE = 0x83;
 }
void main(void)
{
init_timer0();
start_timer0();
while (1)
```

```
{
if(PIN2==0){
if(COUNT < 3)
COUNT++;
else if(COUNT==3)
COUNT=0;
  }
 }
}
```

First time press button: -

second time press button: -

Third time press button: -



Schematic: -