

Circuit design Brilliant Tumelo | T x IBM-EPBL/IBM-Project-6697-165 x WhatsApp x +

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Code Start Simulation Send To

Text 1 (Arduino Uno R3)

```
1 #include <LiquidCrystal.h>
2
3 #define echo 2
4 #define trig 3
5
6 float duration;
7 float distance;
8 int sensor_Input;
9 float temp;
10
11 LiquidCrystal lcd(13, 12, 11, 10, 9, 8);
12
13 void setup() {
14
15   pinMode(trig, OUTPUT);
16   pinMode(echo, INPUT);
17   Serial.begin(9600);
18   lcd.begin(16, 2);
19
20 }
21
22 void loop() {
23
24   time_Measurement();
25   distance = duration * (0.0343) / 2;
26   display_distance();
27 }
```

Serial Monitor

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Code Start Simulation Send To

Ultrasonic Distance Sensor

Name 1

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CODE:-

```
#include <LiquidCrystal.h>
```

```
#define echo 2
```

```
#define trig 3
```

```
float duration;
```

```
float distance;
```

```
int sensor_Input;
```

```
float temp;
```

```
LiquidCrystal lcd(13, 12, 11, 10, 9, 8);
```

```
void setup() {
```

```
pinMode(trig, OUTPUT);
```

```
pinMode(echo, INPUT);
```

```
Serial.begin(9600);
```

```
lcd.begin(16, 2);
```

```
}
```

```
void loop() {
```

```
time_Measurement();
```

```
distance = duration * (0.0343) / 2;
```

```
display_distance();
```

```
measure_Temp();
```

```
}
```

```
void time_Measurement()
```

```
{
```

```
digitalWrite(trig, LOW);
```

```
delayMicroseconds(2);
```

```
digitalWrite(trig, HIGH);
```

```
delayMicroseconds(10);
```

```
digitalWrite(trig, LOW);
```

```
    duration = pulseIn(echo, HIGH);  
}  
  
void measure_Temp()  
{  
    sensor_Input = analogRead(A0);  
    temp = (float)sensor_Input / 1024;  
    temp = temp * 5;  
    temp = temp - 0.5;  
    temp = temp * 100;  
    Serial.print("Temp in C: ");  
    Serial.print(temp);  
    Serial.println();  
}  
  
void display_distance()  
{  
    Serial.print("Distance in Cm: ");  
    Serial.print(distance);  
    Serial.println();  
    delay(1000);  
}
```