



```
#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); //lcd(RS,EN,D4,D5,D6,D7)
```

```
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);  
}
```