



CODE

```
#include <LiquidCrystal.h> //LCD library

#define echo 2
#define trig 3

float duration; // time taken by the pulse to return back
float distance;
int sensor_Input;
float temp;// oneway distance travelled by the pulse

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; // calculate the oneway distance travelled by the pulse
    display_distance();
    measure_Temp();

}

```

```

void time_Measurement()
{ //function to measure the time taken by the pulse to return back
    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()
{ //function to display the distance on LCD/Serial Monitor
  Serial.print("Distance in Cm: ");
  Serial.print(distance);
  Serial.println();
  delay(1000);
}
```