ARDUINO PROGRAM:

#include <Adafruit\_BMP085.h>

#include <Wire.h>

#include <LiquidCrystal.h>

LiquidCrystal lcd(13, 12, 11, 10, 9, 8);//RS,EN,D4,D5,D6,D7

char PRESSURESHOW[4];// initializing a character of size 4 for showing the result

char TEMPARATURESHOW[4];// initializing a character of size 4 for showing the temparature result

Adafruit\_BMP085 bmp;

int buzzer = 13;

int vibr\_Pin=7;

void setup() {

pinMode(buzzer, OUTPUT);

pinMode(vibr\_Pin, INPUT); //set vibr\_Pin input for measurment

Serial.begin(9600); //init serial 9600

// Serial.println("----------------------Vibration demo------------------------");

lcd.begin(16, 2);

// Print a logo message to the LCD.

lcd.print(" BMP180 Sensor");

lcd.setCursor(0, 1);

lcd.print("Temp. & Pressure");

lcd.setCursor(0, 2);

delay (3000);

lcd.clear();//clear display

Serial.begin(9600);

if (!bmp.begin())

{

Serial.println("ERROR");///if there is an error in communication

while (1) {}

}

}

void loop()

{

long measurement =TP\_init();

delay(50);

// Serial.print("measurment = ");

Serial.println(measurement);

if (measurement > 1000){

tone (buzzer,9000);

lcd.print("Pressure= "); // print name

String PRESSUREVALUE = String(bmp.readPressure());

// convert the reading to a char array

PRESSUREVALUE.toCharArray(PRESSURESHOW, 4);

lcd.print(PRESSURESHOW);

lcd.print("hPa ");

lcd.setCursor(0, 1);

lcd.print("Temparature=");// print name

String TEMPARATUREVALUE = String(bmp.readTemperature());

// convert the reading to a char array

TEMPARATUREVALUE.toCharArray(TEMPARATURESHOW, 4);

lcd.print(TEMPARATURESHOW);

lcd.print("C ");

lcd.setCursor(0, 0);//set the cursor to column 0, line1

delay(500);

}

else{

tone (buzzer,0);

}

}

long TP\_init(){

delay(10);

long measurement=pulseIn (vibr\_Pin, HIGH); //wait for the pin to get HIGH and returns measurement

return measurement;

}