

**VSB Engineering College, Karur-639111**  
**Department of Electronics and Communication Engineering**  
**IoT Assignment**

**Topic : Assignment on temperature and humidity sensing and alarm**

**DOMAIN NAME : Internet Of Things**

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**P**

**Coding:**

```
const int TRIG_PIN = 7;  
const int ECHO_PIN = 8;  
const unsigned int MAX_DIST = 23200;
```

```
void setup() {
```

```
    pinMode(TRIG_PIN, OUTPUT);
```

```
    digitalWrite(TRIG_PIN, LOW);
```

```
    pinMode(ECHO_PIN, INPUT);
```

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

```
}
```

```
void loop() {
```

```
    unsigned long t1;
```

```
unsigned long t2;

unsigned long pulse_width;

float cm;

float inches;


digitalWrite(TRIG_PIN, HIGH);
delayMicroseconds(10);
digitalWrite(TRIG_PIN, LOW);


while ( digitalRead(ECHO_PIN) == 0 );


t1 = micros();
while ( digitalRead(ECHO_PIN) == 1);
t2 = micros();
pulse_width = t2 - t1;


cm = pulse_width / 58.0;
inches = pulse_width / 148.0;


if ( pulse_width > MAX_DIST ) {
    Serial.println("Out of range");
} else {
    Serial.print(cm);
    Serial.println(" cm ");
}


// Wait at least 60ms before next measurement
delay(60);
}
```

