

TEAM ID : PNT2022TMID18018

ASSIGNMENT 01 :

Make a Smart Home in Tinkercad, using 2+ sensors, Led, Buzzer in single circuit.

SOLUTION:

```
// C++ code
int trig = 2;
int echo = 3;
int led=4;
int buz=6;
int led1=7;
void setup()
{
  Serial.begin(9600);
  pinMode(trig,OUTPUT);
  pinMode(echo,INPUT);
  pinMode(led,OUTPUT);
  pinMode(led1,OUTPUT);
  pinMode(buz,OUTPUT);
}
void loop() {
  // temperature sensor
  double t = analogRead(A2);
  Serial.print("Analog data: ");
  Serial.println(t);
  double n= t/1024;
  double v=n*5;
  Serial.print("Voltage data: ");
  Serial.println(v);
  double c=v-0.5;
  double k=v*100;
  Serial.print("Temperature value:");
  Serial.println(k);
  delay(1000);
  //ultrasonic sensor
  digitalWrite(trig,LOW);
  digitalWrite(trig,HIGH);
  delayMicroseconds(10);
  digitalWrite(trig,LOW);
  float dur=pulseIn(echo,HIGH);
  float dist=(dur*0.0343)/2;
```

```
Serial.print("Distance in cm : ");
Serial.println(dist);
//led if(dist>=100)
{
digitalWrite(led,HIGH);
}
else
{
digitalWrite(led,LOW);
}
//buzzer
digitalWrite(buz,LOW);
digitalWrite(led1,LOW);
delay(1000);
digitalWrite(buz,HIGH);
digitalWrite(led1,HIGH);
delay(1000);
}
```

