

## **Make a Smart Home in Tinkercad, using 2+ sensors, Led, Buzzer in single code and circuit**

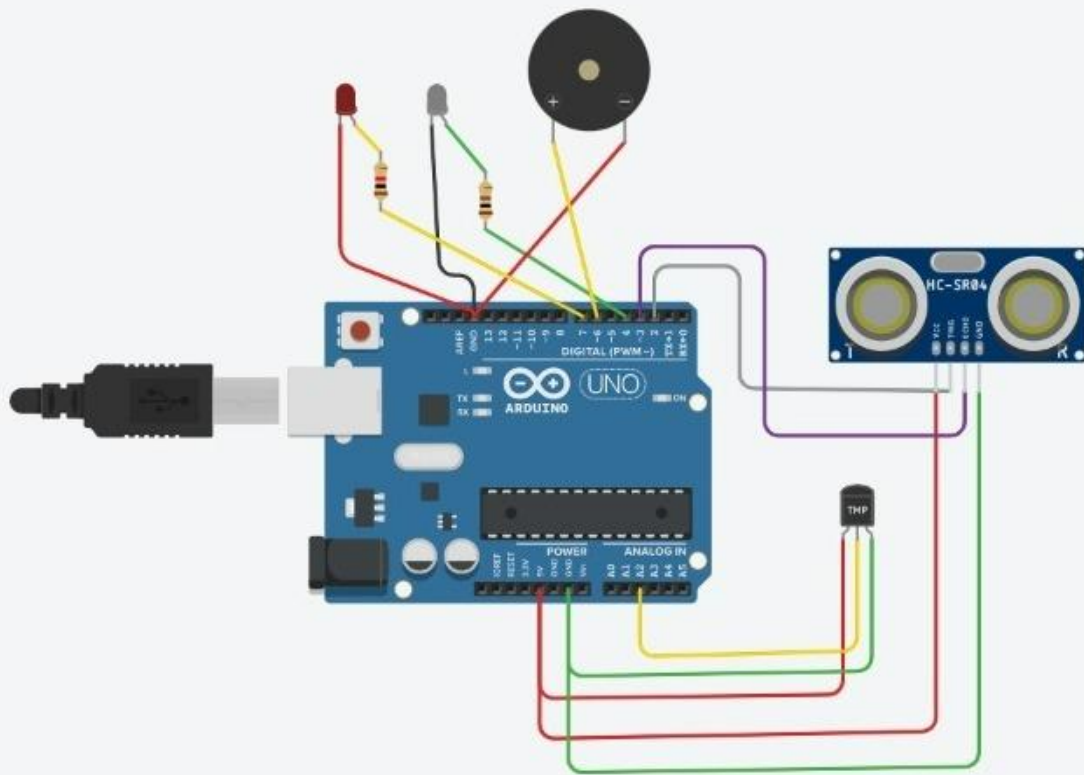
### **TEAM MEMBERS:**

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Name	Quantity	Component
U1	1	Arduino Uno R3
U2	1	Temperature Sensor [TMP36]
DIST1	1	Ultrasonic Distance Sensor
D1	1	White LED
R1	1	100 Ω Resistor
PIEZ01	1	Piezo
D2	1	Red LED
R2	1	1 kΩ Resistor

## CODE:

```
// 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);  
}
```

**TINKERCARD LINK:**

<https://www.tinkercad.com/things/5VVkjBtZQSz>