

# ASSIGNMENT-1

## Smart home circuit connection in Tinker Card

Assignment Date	20 september 2022
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Maximum Marks	2 Marks

### Question:

**Make a Smart home in Tinkercard using 2+ sensors,LED,Buzzer in single code and circuit.**

### SOLUTION:

```
int t=2;

int e=3;

void setup()

{

  Serial.begin(9600);

  pinMode(t,OUTPUT);

  pinMode(e,INPUT);

  pinMode(12,OUTPUT);

}

void loop()

{
```

```

//ultrasonic sensor
digitalWrite(t,LOW);
digitalWrite(t,HIGH);
delayMicroseconds(10);
digitalWrite(t,LOW);
float dur=pulseIn(e,HIGH);
float dis=(dur*0.0343)/2;
Serial.print("Distance is: ");
Serial.println(dis);

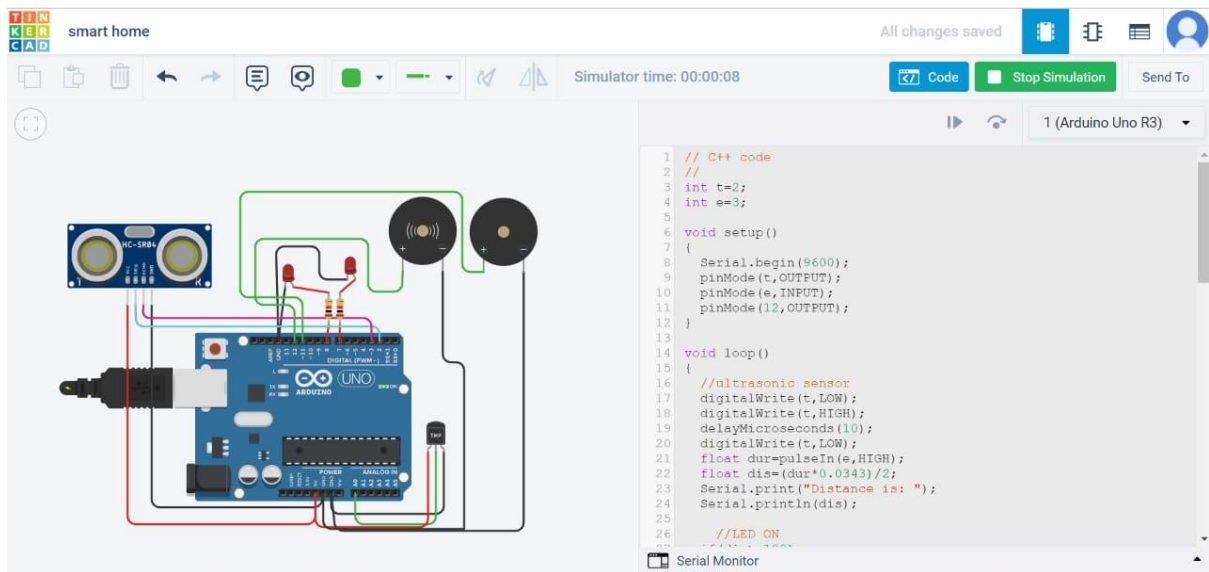
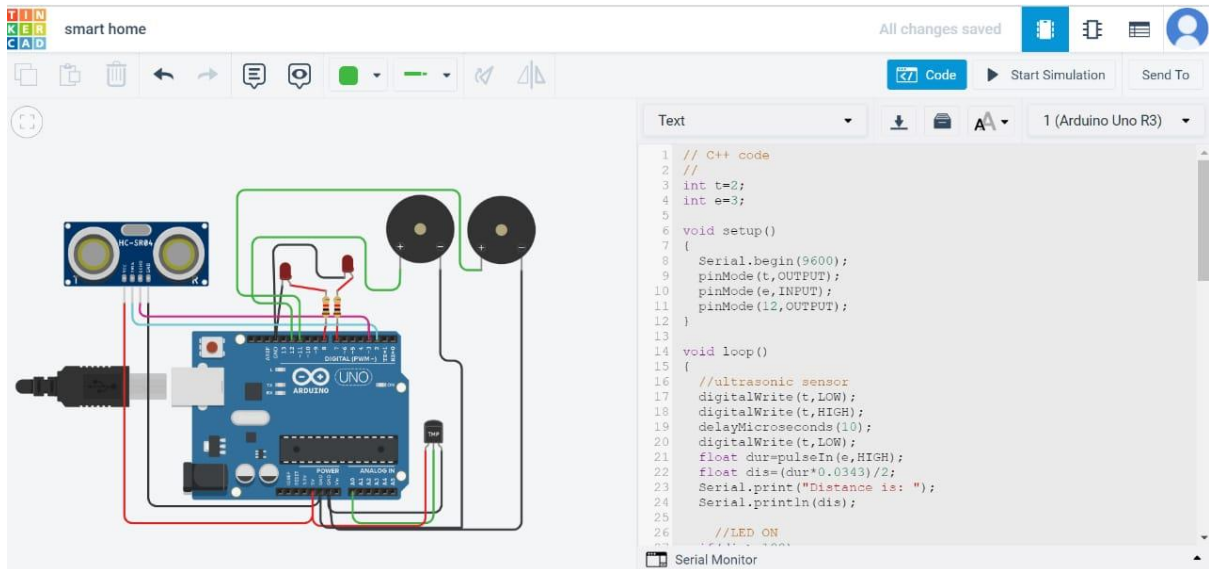
//LED ON
if(dis>=100)
{
    digitalWrite(8,HIGH);
    digitalWrite(7,HIGH);
}

//Buzzer For ultrasonic Sensor
if(dis>=100)
{
    for(int i=0; i<=30000; i=i+10)
    {
        tone(12,i);
        delay(1000);
        noTone(12);
        delay(1000);
    }
}

//Temperate Sensor
double a= analogRead(A0);
double t=((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(t);

```

```
delay(1000);  
//LED ON  
if(t>=100)  
{  
    digitalWrite(8,HIGH);  
    digitalWrite(7,HIGH);  
}  
//Buzzer for Temperature Sensor  
if(t>=100)  
{  
    for(int i=0; i<=30000; i=i+10)  
    {  
        tone(12,i);  
        delay(1000);  
        noTone(12);  
        delay(1000);  
    }  
}  
//LED OFF  
if(t<100)  
{  
    digitalWrite(8,LOW);  
    digitalWrite(7,LOW);  
}  
}
```



**Tinkercard Link:**

<https://www.tinkercad.com/things/0rayC9zuldP-smart-home/editel>