

**ASSINGMENT NO:1**

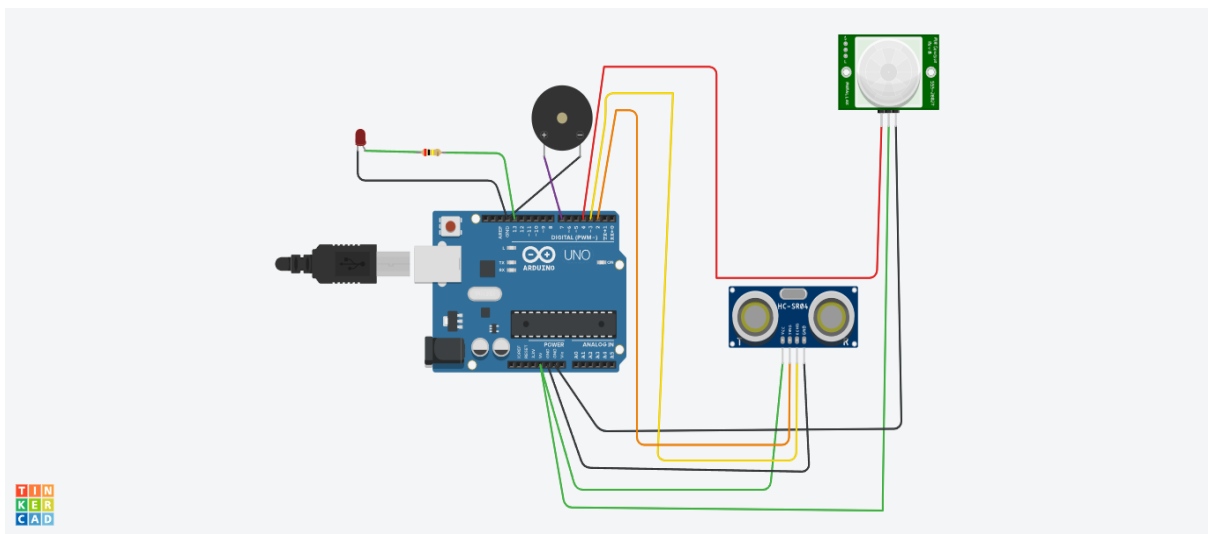
**IBM(NALAIYA THIRAN)**

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**TOPIC : SMART HOME**



**TINKER CAD**

**CODE:**

```
int trigger_pin=2;
```

```
int echo_pin=3;
```

```
int buzzer_pin=7;
```

```
int time;
```

```
int distance;
```

```
void setup()
```

```
{  
  Serial.begin(9600);  
  pinMode(trigger_pin,OUTPUT);  
  pinMode(echo_pin,INPUT);  
  pinMode(4,INPUT);  
  pinMode(13,OUTPUT);  
  pinMode(buzzer_pin,OUTPUT);  
  pinMode(7,OUTPUT);  
}
```

```
void loop()
```

```
{  
  digitalWrite(trigger_pin,HIGH);  
  delayMicroseconds(10);  
  digitalWrite(trigger_pin,LOW);  
  time=pulseIn(echo_pin,HIGH);  
  distance=(time*0.034)/2;  
  
  if(distance<10){  
    Serial.println("DOOR  OPEN");  
    Serial.print("Distance:");  
    Serial.println(distance);  
    delay(10);  
  }  
  else{
```

```
Serial.println("DOOR CLOSED");
Serial.print("Distance:");
Serial.println(distance);
digitalWrite(7,LOW);
delay(10);
}
int p=digitalRead(4);
if(p){
    digitalWrite(13,HIGH);
    digitalWrite(7,HIGH);
    Serial.println("MOTION DETECTED");

}
else{
    digitalWrite(13,LOW);
    digitalWrite(7,LOW);
    Serial.println("not dected");
}
}
```