

Assignment -1

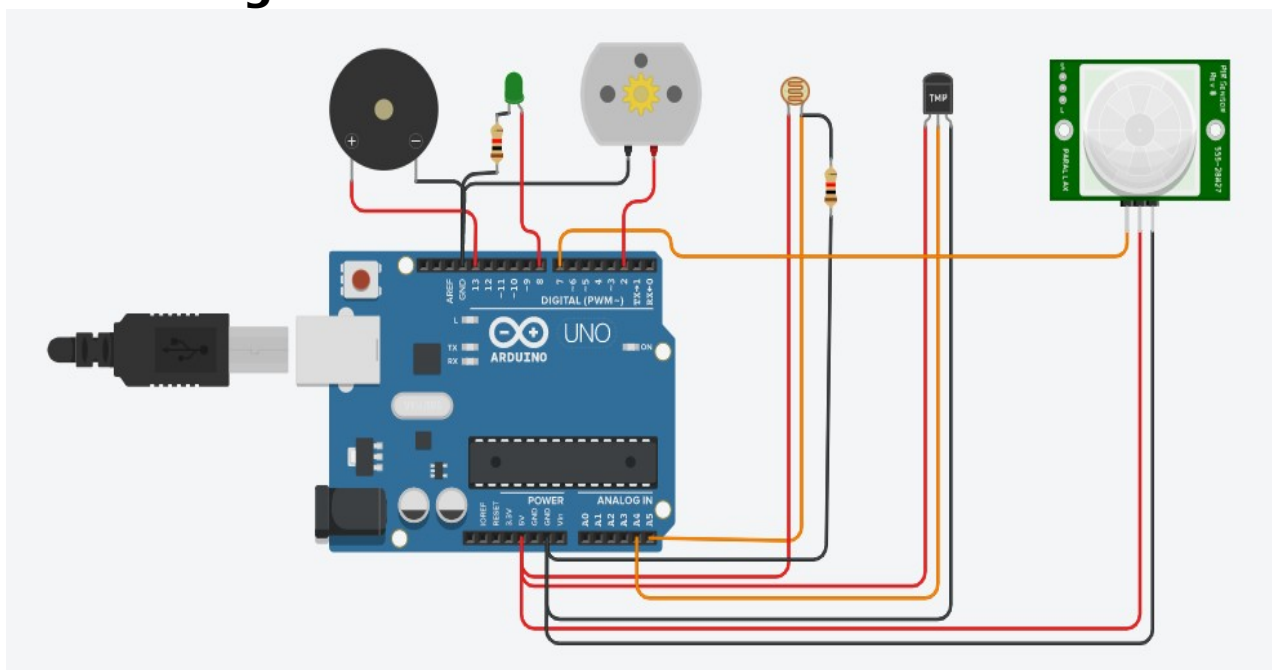
Assignment Date	08/09/2022
Student Name	Nandhakumar L
Student Roll Number	61071912124
Maximum Marks	2 Marks

Question:

To create a smart home using arduino in tinkercad. (Note: Use Minimum 2-3 sensors and an LED and Buzzer)

Solution:

Circuit Diagram:



Code:

```
// C++ code
//
float x,y,z,temp;
void setup()
{
  Serial.begin(9600);
  pinMode(2, OUTPUT);
  pinMode(7, INPUT);
```

```

pinMode(8, OUTPUT);
pinMode(13, OUTPUT);
pinMode(A4, INPUT);
pinMode(A5, INPUT);
}
void loop()
{
  x=analogRead(A5);
  y=analogRead(A4);
  z=digitalRead(7);
  temp = (double)y / 1024;
  temp = temp * 5;
  temp = temp - 0.5;
  temp = temp * 100;
  if(x<=550)
  {
    digitalWrite(8, HIGH);
    Serial.println(x);
    delay(1000);
    Serial.println("Room is Dark.....Light's ON");
    delay(1000);
  }
  else
  {
    digitalWrite(8, LOW);
    Serial.println(x);
    delay(1000);
    Serial.println("Room is Light.....Light's OFF");
    delay(1000);
  }
  if(temp>=30)
  {
    digitalWrite(2, HIGH);

```

```

    Serial.println(temp);
    delay(1000);
    Serial.println("Temperature is High.....Fan ON");
    delay(1000);
}
else
{
    digitalWrite(2, LOW);
    Serial.println(temp);
    delay(1000);
    Serial.println("Temperature is Low.....Fan OFF");
    delay(1000);
}
if(z>0)
{
    digitalWrite(13, HIGH);
    Serial.println(z);
    Serial.println("Someone is Entered.....");
}
else
{
    digitalWrite(13, LOW);
    Serial.println(z);
    Serial.println("No one is there.....");
}
}

```

Tinkercad Link:

<https://www.tinkercad.com/things/7G7NGHyALOr-brave-kup-curcan/editel?sharecode=O7IHSdwPV7uu2-IGbmFMoruW9nmADd1tzGRPjCP5LXE>