

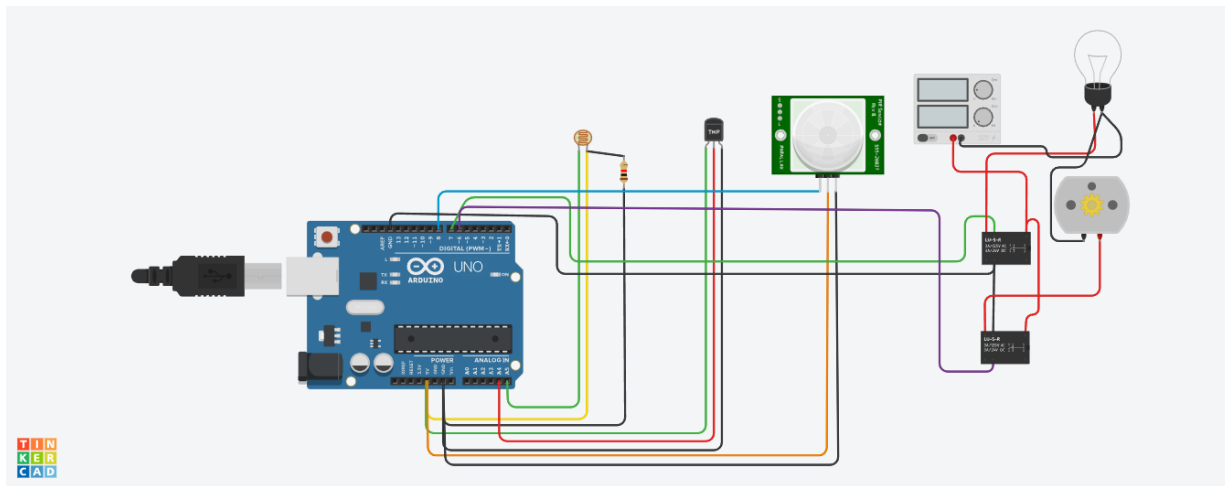
Assignment -1

Assignment Date	19 September 2022
Student Name	SARASWATHI S
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Maximum Marks	2 Marks

Question-1:

Build a Smart Home in Tinkercad with 2 sensors,an Led,buzzer and submit it.

Solution:



SOURCE CODE:

```
float x,y,z,temp;

void setup()
{
  pinMode(8, INPUT);
  pinMode(5, OUTPUT);
  pinMode(6, OUTPUT);
  pinMode(A5, INPUT);
  pinMode(A4, INPUT);
  Serial.begin(9600);
}

void loop()
{
```

```
x= digitalRead(8);
y= analogRead(A5);
z= analogRead(A4);
Serial.println(x);
Serial.println(y);
Serial.println(z);
temp = (double)z / 1024;
temp = temp * 5;
temp = temp - 0.5;
temp = temp * 100;
if ( (x>0) )
{
    if ((y<550)&&(temp>30))
    {
digitalWrite(5, HIGH);
digitalWrite(6, HIGH);
    }
    else if((y<550)&&(temp<30))
    {
digitalWrite(5, HIGH);
digitalWrite(6, LOW);
    }
    else if((y>550)&&(temp>30))
    {
digitalWrite(5, LOW);
digitalWrite(6, HIGH);
    }
```

```

else if((y>550)&&(temp<30))
{
digitalWrite(5, LOW);
digitalWrite(6, LOW);
}
}
else
{
digitalWrite(5, LOW);
digitalWrite(6, LOW);
}
}

```

Serial Monitor:

The screenshot shows the Tinkercad web interface with an Arduino Uno R3 connected to a temperature sensor module. The code in the Serial Monitor is as follows:

```

1 float x,y,z,temp;
2 void setup()
3 {
4   pinMode(8, INPUT);
5   pinMode(5, OUTPUT);
6   pinMode(6, OUTPUT);
7   pinMode(A5, INPUT);
8   pinMode(A4, INPUT);
9   Serial.begin(9600);
10 }
11 void loop()
12 {
13   x= digitalRead(8);
14   v= analogRead(A5);

```

The Serial Monitor output shows the following data:

```

215.00
0.00
1023.00
215.00
0.00
1023.00
215.00
0.00

```

Link:

https://www.tinkercad.com/things/jXA1ov5V0Y6-funky-esboo/editel?sharecode=cwcnr2gth-xhPjyOoK_8Yptsnw-Zz4xZPGYW4rQe4fs