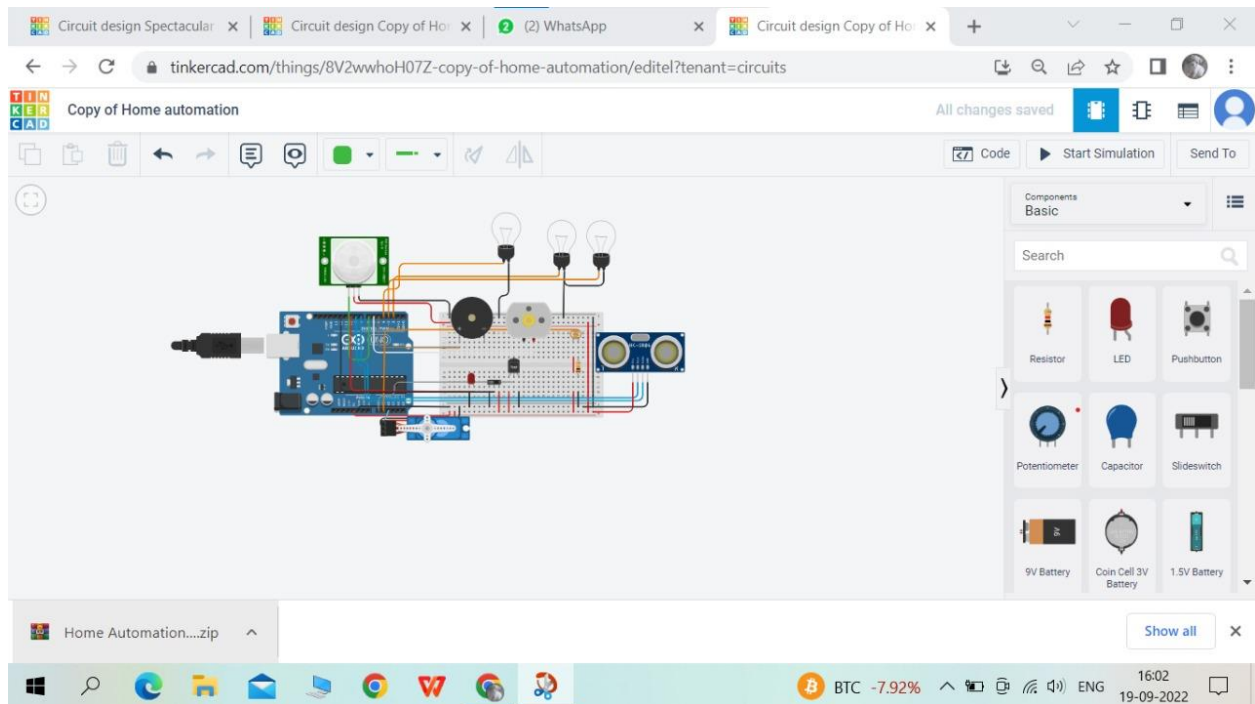


Assignment -1

Home automation using sensors

Assignment Date	19 September 2022
Student Name	Yuvan Shankar raja .M.G
Student Roll Number	410819106005
Maximum Marks	2 Marks



Circuit design Spectacular x Circuit design Copy of Ho x (2) WhatsApp x Circuit design Copy of Ho x

tinkercad.com/things/8V2wwhoH07Z-copy-of-home-automation/editel?tenant=circuits

Copy of Home automation

All changes saved

Code Start Simulation Send To

Text 1 (Arduino Uno R3)

```

1 #include<Servo.h>
2 int PIR = 8;
3 int LDR = A1;
4 int LED = 10;
5 int TMP = A0;
6 int MTR = 6;
7 int D;
8 int TRIG = 8;
9 int ECHO = 9;
10 int BUZZER = 5;
11 Servo door;
12 void setup()
13 {
14   door.attach(A2);
15   pinMode(LDR, INPUT);
16   pinMode(LED, OUTPUT);
17   pinMode(TMP, INPUT);
18   pinMode(MTR, OUTPUT);
19   pinMode(TRIG, OUTPUT);
20   pinMode(ECHO, INPUT);
21   pinMode(BUZZER, OUTPUT);
22   pinMode(2, OUTPUT);
23   pinMode(3, OUTPUT);
24   pinMode(4, OUTPUT);

```

Serial Monitor

Home Automation....zip

Show all

BTC -7.92% 16:02 19-09-2022

Circuit design Spectacular x Circuit design Copy of Ho x (2) WhatsApp x Circuit design Copy of Ho x

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Copy of Home automation

All changes saved

Code Start Simulation Send To

Text 1 (Arduino Uno R3)

```

26 Serial.begin(9600);
27 }
28
29 void loop()
30 {
31   int LDR2 = analogRead(LDR);
32   Serial.println(LDR2);
33   if (LDR2 <= 50)
34   {
35     digitalWrite(LED, HIGH);
36     digitalWrite(2, HIGH);
37     digitalWrite(3, HIGH);
38     digitalWrite(4, HIGH);
39   }
40   else
41   {
42     digitalWrite(LED, LOW);
43     digitalWrite(2, LOW);
44     digitalWrite(3, LOW);
45     digitalWrite(4, LOW);
46   }
47   int TEMP = analogRead(TMP);
48   float VOLT = TEMP*5.0;
49   VOLT /= 1024.0;

```

Serial Monitor

Home Automation....zip

Show all

ETH -10.60% 16:04 19-09-2022

Circuit design Spectacular x Circuit design Copy of Ho x (2) WhatsApp x Circuit design Copy of Ho x

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Copy of Home automation

All changes saved

Code Start Simulation Send To

Text 1 (Arduino Uno R3)

```
48 float VOLT = TEMP*5.0;
49 VOLT /= 1024.0;
50 float TempC = (VOLT - 0.5)*100;
51 if(TempC >= 30)
52 {
53   digitalWrite(MTR,HIGH);
54 }
55 else
56 {
57   digitalWrite(MTR,LOW);
58 }
59 D = digitalRead(12);
60 if(D == 1)
61 {
62   door.write(100);
63 }
64 else
65 {
66   door.write(0);
67 }
68 long duration,distance;
69 digitalWrite(TRIG,HIGH);
70 delayMicroseconds(10);
71 digitalWrite(TRIG,LOW);
72 duration = pulseIn(ECHO,HIGH);
73 distance = duration/58.2;
74 if(distance <= 50 && distance >= 0)
75 {
76   digitalWrite(BUZZER,HIGH);
77 }
78 else
79 {
80   digitalWrite(BUZZER,LOW);
81 }
82 delay(60);
83 if(digitalRead(PIR) == HIGH)
84 {
85   digitalWrite(BUZZER,HIGH);
86 }
87 else
88 {
89   digitalWrite(BUZZER,LOW);
90 }
91 }
```

Serial Monitor

Home Automation....zip

Show all

33°C Mostly sunny 16:05 19-09-2022

Circuit design Spectacular x Circuit design Copy of Ho x (2) WhatsApp x Circuit design Copy of Ho x

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Copy of Home automation

All changes saved

Code Start Simulation Send To

Text 1 (Arduino Uno R3)

```
68 long duration,distance;
69 digitalWrite(TRIG,HIGH);
70 delayMicroseconds(10);
71 digitalWrite(TRIG,LOW);
72 duration = pulseIn(ECHO,HIGH);
73 distance = duration/58.2;
74 if(distance <= 50 && distance >= 0)
75 {
76   digitalWrite(BUZZER,HIGH);
77 }
78 else
79 {
80   digitalWrite(BUZZER,LOW);
81 }
82 delay(60);
83 if(digitalRead(PIR) == HIGH)
84 {
85   digitalWrite(BUZZER,HIGH);
86 }
87 else
88 {
89   digitalWrite(BUZZER,LOW);
90 }
91 }
```

Serial Monitor

Home Automation....zip

Show all

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Circuit design Spectacular x Circuit design Copy of Ho x (2) WhatsApp x Circuit design Copy of x

tinkercad.com/things/8V2wwhoH07Z-copy-of-home-automation/editel?tenant=circuits

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All changes saved

Simulator time: 00:00:05.014

Code Stop Simulation Send To

Components Basic

Search

Resistor LED Pushbutton

Potentiometer Capacitor Slideswitch

9V Battery Coin Cell 3V Battery 1.5V Battery

Home Automation....zip

Show all

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