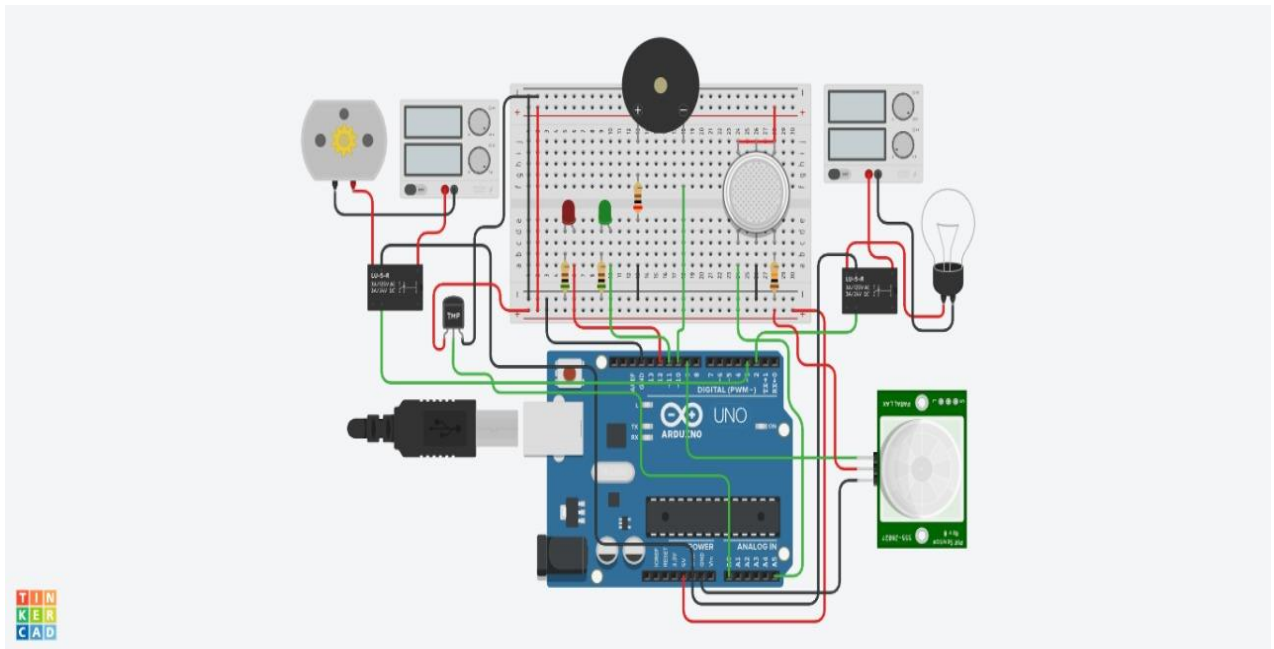


Assignment -1

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Student Roll Number	312819106039
Project Name	Smart Waste Management System for Metropolitan Cities

Question: Build a Smart home in Tinkercad with 2 Sensors ,an LED and buzzer



CODE:

```
int LED1 = 12;  
int LED2 = 11;  
int buzzer = 10;  
int smoke = A5;  
int bulb = 2;  
int fan = 3;
```

```
int smokeThreshold = 500;
```

```
int inputPir = 9;
```

```
int baselineTemp = 0;
```

```
int celsius = 0;
```

```
int val = 0;
```

```
void setup() {
```

```
    pinMode(LED1, OUTPUT);
```

```
    pinMode(LED2, OUTPUT);
```

```
    pinMode(buzzer, OUTPUT);
```

```
    pinMode(smoke, INPUT);
```

```
    pinMode(inputPir, INPUT);
```

```
    pinMode(bulb, OUTPUT);
```

```
    pinMode(fan, OUTPUT);
```

```
    Serial.begin(9600);
```

```
}
```

```
void loop() {
```

```
    int analogSensor = analogRead(smoke);
```

```
    val = digitalRead(inputPir);
```

```
    baselineTemp = 40;
```

```
celsius = map(((analogRead(A0) - 20) * 3.04), 0, 1023, -40, 125);
```

```
Serial.print(" TEMP: ");
```

```
Serial.print(celsius);
```

```
Serial.print(" C, ");
```

```
if (celsius < 25) {
```

```
    digitalWrite(fan, LOW);
```

```
}
```

```
if (celsius > 25) {
```

```
    digitalWrite(fan, HIGH);
```

```
}
```

```
Serial.print("Co2: ");
```

```
Serial.print(analogSensor);
```

```
if (analogSensor > smokeThreshold)
```

```
{
```

```
    digitalWrite(LED1, HIGH);
```

```
    digitalWrite(LED2, LOW);
```

```
    tone(buzzer, 1000, 350);
```

```
}
```

```
else
```

```
{
```

```
    digitalWrite(LED1, LOW);
```

```
    digitalWrite(LED2, HIGH);
```

```
    noTone(buzzer);  
}  
delay(100);  
Serial.print(", PIR: ");  
Serial.println(val);  
if(val == HIGH)  
{  
    digitalWrite(bulb, HIGH);  
    delay(2000);  
}  
else  
{  
    digitalWrite(bulb, LOW);  
    delay(300);  
}  
}
```