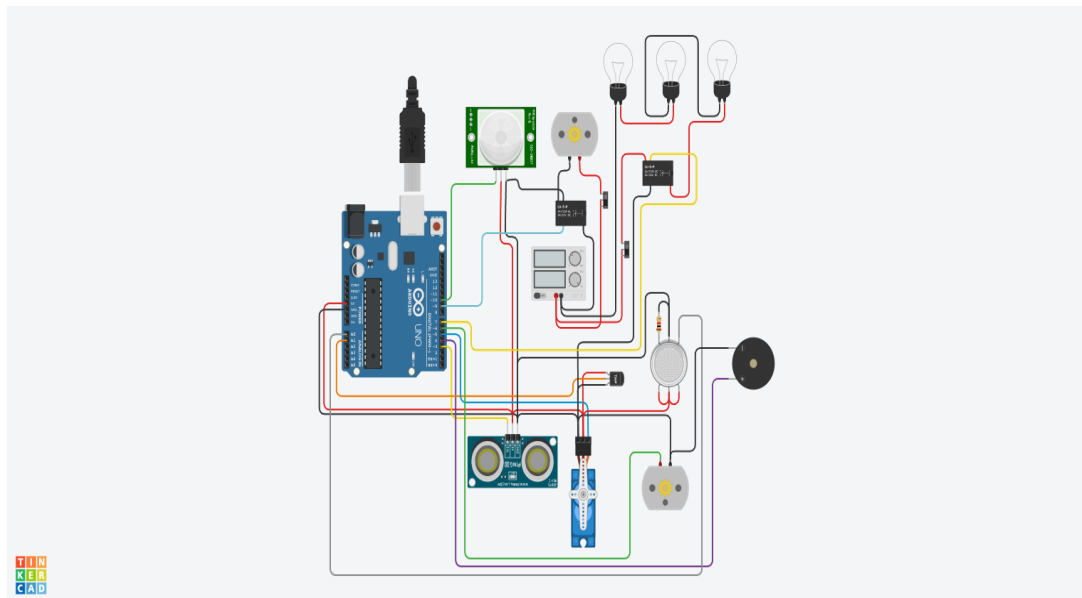


REG.NO	731219106010
TEAM ID	PNT2022TMID44431
PROJECT NAME	Gas leakage Monitoring and Alerting System

Assignment-1 : Make a smartHome in Tinkercard, using sensors,bulb,DCmotors in single code and circuit.

Input:



Coding:

```
// C++ code

//

#include <Servo.h>

int Cabinet = 0;

int PIRS = 0;

int Gass = 0;

int Temps = 0;

long readUlt
```

```

rasonicDistance(int triggerPin, int echoPin)
{
    pinMode(triggerPin, OUTPUT); // Clear the trigger
    digitalWrite(triggerPin, LOW);
    delayMicroseconds(2);
    // Sets the trigger pin to HIGH state for 10 microseconds
    digitalWrite(triggerPin, HIGH);
    delayMicroseconds(10);
    digitalWrite(triggerPin, LOW);
    pinMode(echoPin, INPUT);
    // Reads the echo pin, and returns the sound wave travel time in microseconds
    return pulseIn(echoPin, HIGH);
}

Servo servo_5;

void setup()
{
    Serial.begin(9600);
    servo_5.attach(5, 500, 2500);
    pinMode(10, INPUT);
    pinMode(9, OUTPUT);
    pinMode(7, OUTPUT);
    pinMode(A1, INPUT);
    pinMode(6, OUTPUT);
    pinMode(A0, INPUT);
    pinMode(4, OUTPUT);
}

void loop()
{
    Cabinet = 0.01723 * readUltrasonicDistance(3, 3);

```

```
Serial.println(Cabinet);

if (Cabinet < 15) {

    servo_5.write(90);

    delay(5000); // Wait for 5000 millisecond(s)

} else {

    servo_5.write(0);

}

PIRS = digitalRead(10);

Serial.println(PIRS);

if (PIRS == HIGH) {

    digitalWrite(9, HIGH);

    digitalWrite(7, HIGH);

} else {

    digitalWrite(9, LOW);

    digitalWrite(7, LOW);

}

Temps = (-40 + 0.488155 * (analogRead(A1) - 20));

Serial.println(Temps);

if (Temps >= 30) {

    digitalWrite(6, HIGH);

} else {

    digitalWrite(6, LOW);

}

Gass = analogRead(A0);

Serial.println(Gass);

if (Gass >= 220) {

    digitalWrite(4, HIGH);

} else {

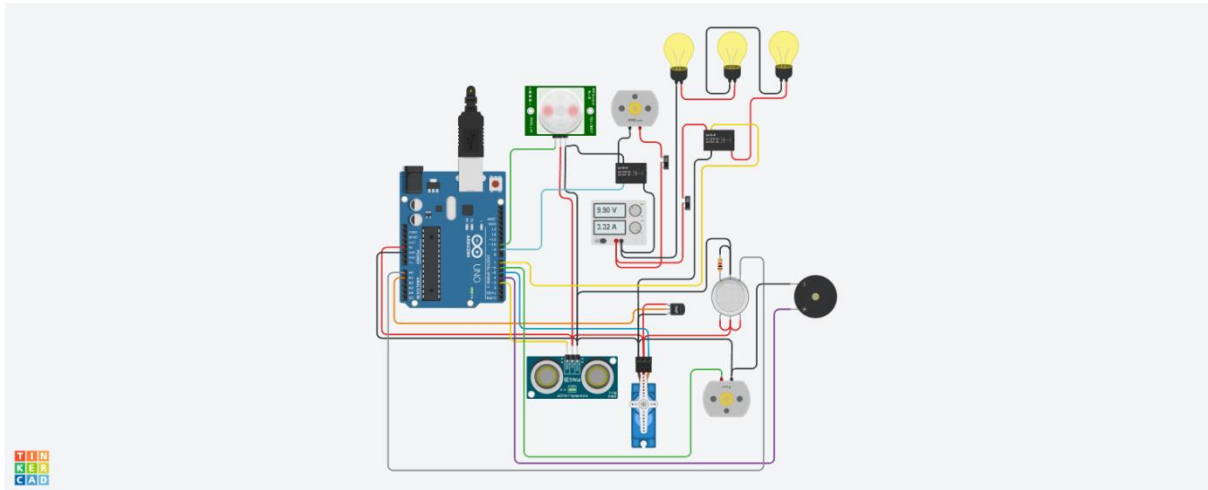
    digitalWrite(4, LOW);

}
```

```
}  
}
```

Outputs:

Light bulb,DC motor



Gas sensor:

