**Assignment -1**

Python Programming

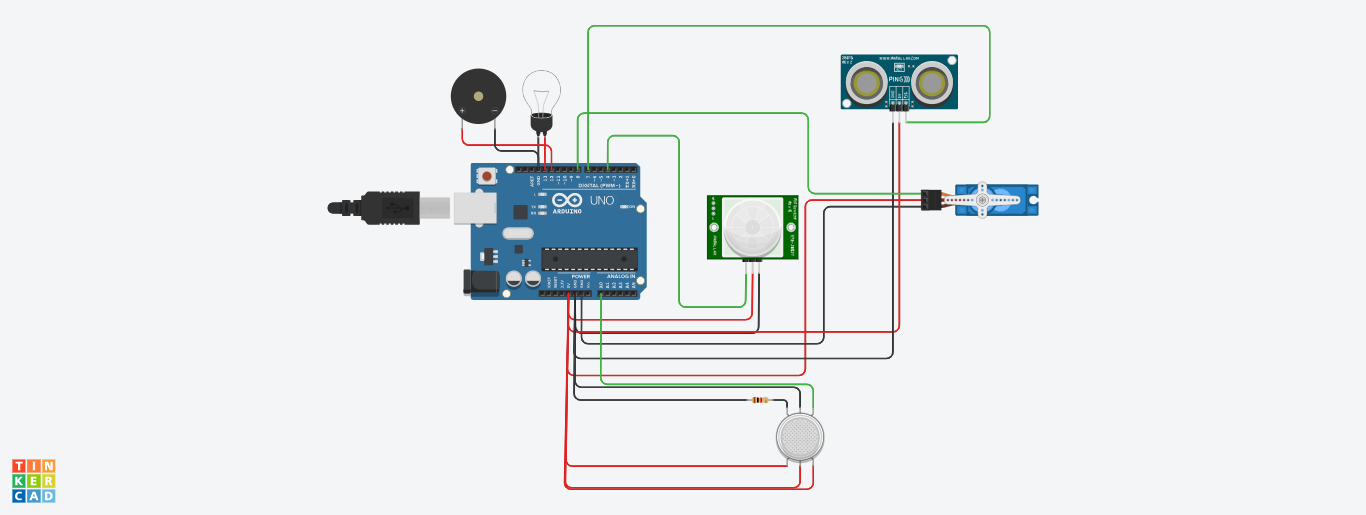
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**Question-1:**

Home automation project using Aruduino, two sensor,buzzer ,light

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| **Solution:**  **#include<Servo.h>**  **int dist = 0;**  **int gassensor = 0;**  **long readUltrasonicDistance(int triggerPin, int echoPin)**  **{**  **pinMode(triggerPin, OUTPUT);**  **digitalWrite(triggerPin, LOW);**  **delayMicroseconds(2);**  **digitalWrite(triggerPin, HIGH);**  **delayMicroseconds(10);**  **digitalWrite(triggerPin, LOW);**  **pinMode(echoPin, INPUT);**  **return pulseIn(echoPin, HIGH);**  **}**  **Servo mainServo;**  **void setup()**  **{**  **mainServo.attach(8, 500, 2500);**  **pinMode(13,OUTPUT);**  **pinMode(4,INPUT);**  **pinMode(12,OUTPUT);**  **pinMode(A0, INPUT);**  **pinMode(12, OUTPUT);**  **Serial.begin(9600);**  **}**  **void loop()**  **{**  **dist = 0.01723 \* readUltrasonicDistance(7, 7);**  **if (dist <= 100) {**  **mainServo.write(90);**  **delay(1000);**  **} else {**  **mainServo.write(0);**  **delay(1000);**  **}**  **if (digitalRead(4) == 1) {**  **digitalWrite(13, HIGH);**  **//delay(1000);**  **} else {**  **digitalWrite(13, LOW);**  **//delay(1000);**  **}**  **gassensor = analogRead(A0);**  **if (gassensor >= 250) {**  **tone(12, 523, 1000);**  **delay(10);**  **}**  **}** |
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**Circuit Diagram:**



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