

ASSESSMENT-1

ASSESSMENT DATE	19 SEPTEMBER 2022
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MARKS	2 Marks

PROBLEM:

Home Automation using Tinkercad.

CODE:

```
#include<Servo.h>

int dist = 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 servo_8;

void setup()
{
    servo_8.attach(8, 500, 2500);
    pinMode(2, INPUT);
    pinMode(12, OUTPUT);
    pinMode(A0, INPUT);
    pinMode(9, OUTPUT);
}

void loop()
{
```

```
dist = 0.01723 * readUltrasonicDistance(7, 7);
if (dist <= 100) {
    servo_8.write(90);
    delay(1000);
} else {
    servo_8.write(0);
    delay(1000);
}
if (digitalRead(2) == 1) {
    digitalWrite(12, HIGH);
    delay(1000);
} else {
    digitalWrite(12, LOW);
    delay(1000);
}
if (analogRead(A0) > 200) {
    digitalWrite(9, HIGH);
    delay(1000);
} else {
    digitalWrite(9, LOW);
    delay(1000);
}
}
```

CIRCUIT SCREENSHOT:



