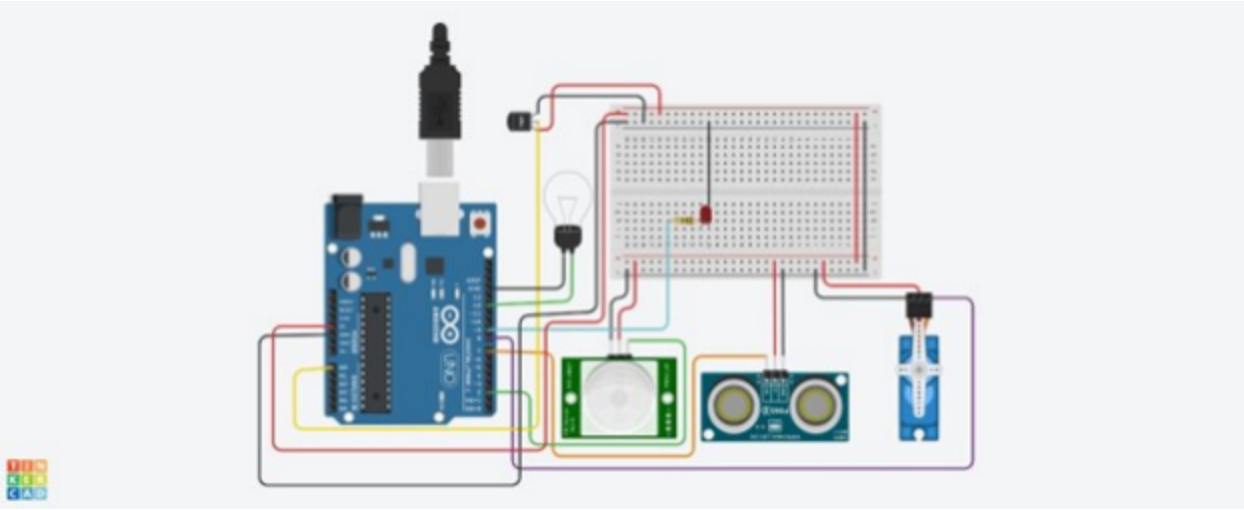
ASSIGNMENT 1 - HOME AUTOMATION
KISHORE K S 113119UG03049

CIRCUIT :



CODE :

```
#include <Servo.h>

int dist = 0;

long readUltrasonicDistance(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_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); / Wait for 1000 millisecond(s)
} else {
 servo_8.write(0);
delay(1000); / Wait for 1000 millisecond(s)
}
if (digitalRead(2) == 1) {
 digitalWrite(12, HIGH);
delay(1000); / Wait for 1000 millisecond(s)
} else {
digitalWrite(12, LOW);
delay(1000); / Wait for 1000 millisecond(s)
}
if (analogRead(A0) > 200) {
 digitalWrite(9, HIGH);
delay(1000); / Wait for 1000 millisecond(s)
} else {
digitalWrite(9, LOW);
delay(1000); / Wait for 1000 millisecond(s)
}
}
```

TINKERCAD LINK :

https://www.tinkercad.com/things/7lV68hGUW5V-neat-tumeloluulia/editel?sharecode=I8Q0lPz33Wtv2RUkavarscqH8ZiVImQJyo46hjCYMrQ