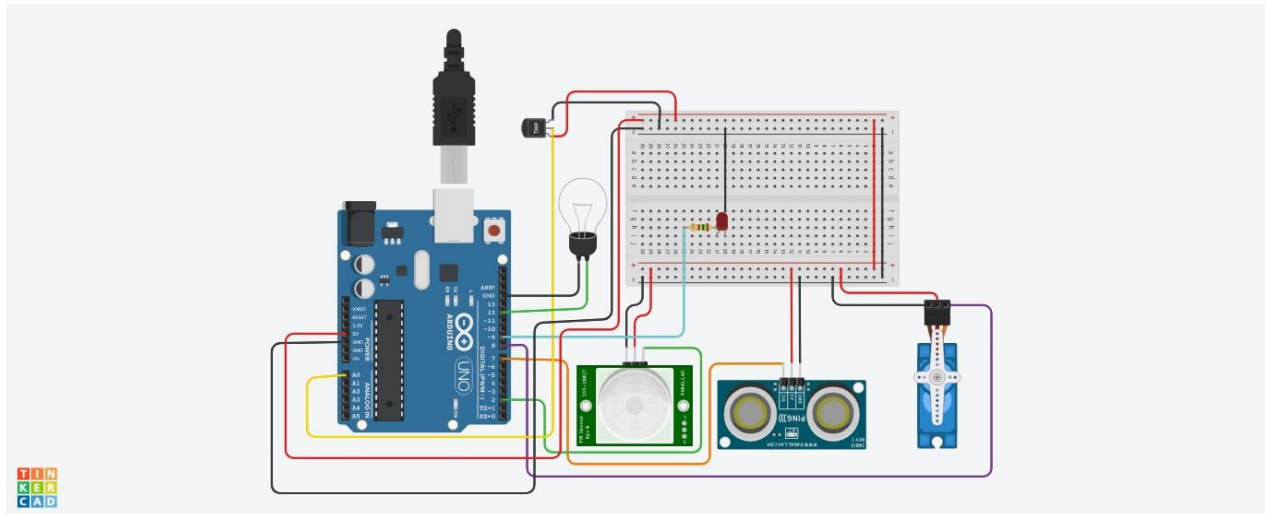ASSIGNMENT 1 - HOME AUTOMATION
DAYANIDHI S 113119UG03018

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)
  }




}
```

TIMKERCAD LINK :

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