Assignment -1

Tinkercad circuit

Assignment Date	19 September 2022
Student Name	Mr. Arul.B
Student Roll Number	812419106006
Maximum Marks	2 Marks

Question-1:

Build a smart home in tinkercard

Program:

```
#include <Servo.h>
int valuephoto = 0;
int valuesensor = 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 microsecon
return pulseIn(echoPin, HIGH);
}
Microseconds

Servo servo_13;
Servo servo_3;
void setup()
{
pinMode(A0, INPUT);
servo_13.attach(13, 500, 2500);
servo_3.attach(3, 500, 2500);
}
```

```
void loop()
{
valuesensor = 0.01723 * readUltrasonicDistance(10, 10);
valuephoto = analogRead(A0);
if (valuesensor <= 150) {
servo_13.write(90);
} else {
servo_13.write(0);
}
if (valuephoto >= 500) {
servo_3.write(90);
} else {
servo_3.write(0);
}
delay(10); // Delay a little bit to improve simulation performance
}
```