**Assignment -1**

Python Programming

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| Assignment Date | 22 september 2022 |
| Student Name | Mr. Karthick pandiyan R |
| Student Roll Number | 812419106023 |
| Maximum Marks | 2 Marks |

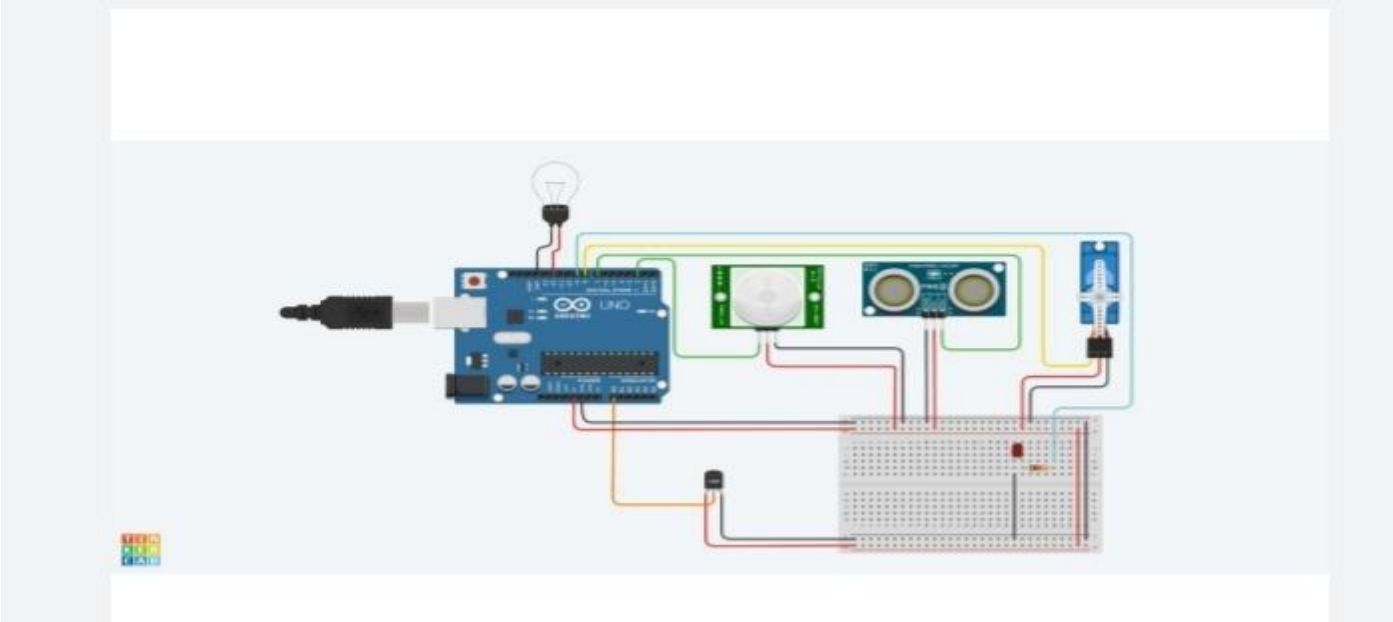
**Question**

MAKE A SMART HOME USING TWO SENSORS:

**LINK:**

https://www.tinkercad.com/things/bkdHNBgl8ls-home-made-project/editel

**CIRCUIT:**



**Programs:**

```
// C++ code
//
 #include<Servo.h>
int set = 0;
int set_to = 0;
int dist = 0;
 int read_digital = 0;
```

```
 int read_digital_pin2 = 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)
 }
}
```