ASSIGNMENT 1

Domain: IoT

Assignment on **SMART HOME AUTOMATION IN TINKERCAD**

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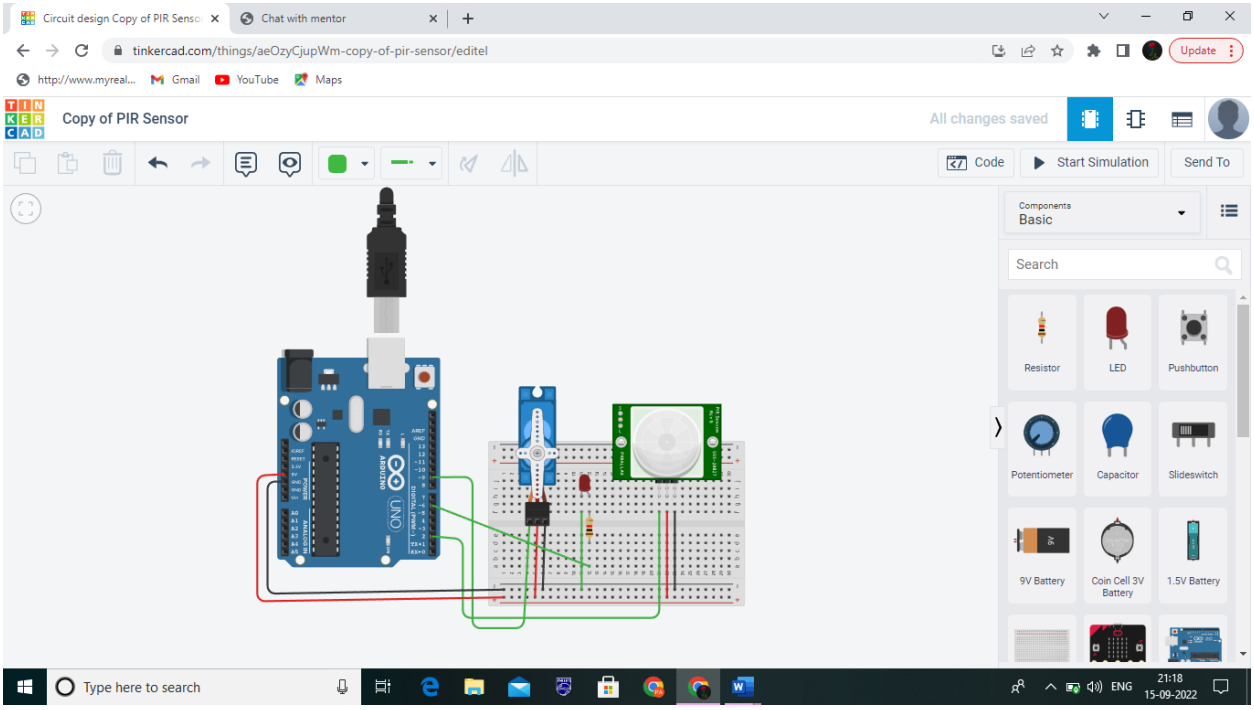
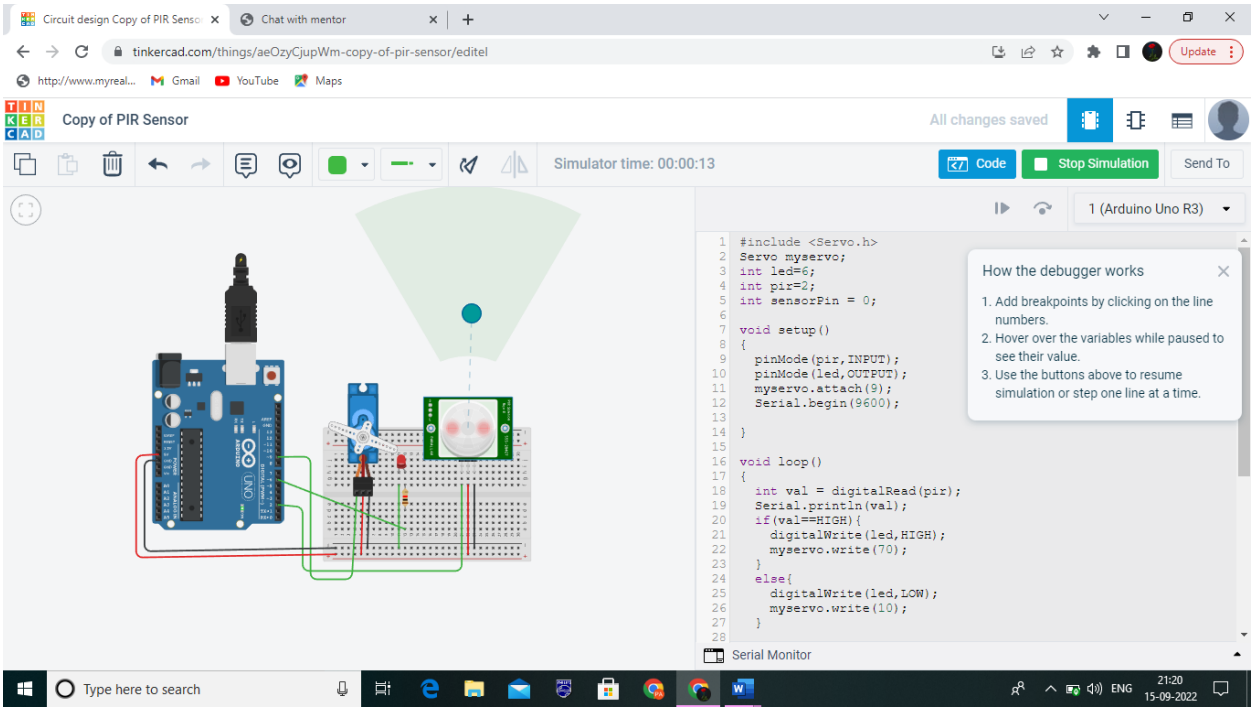
CIRCUIT:


Circuit design Copy of PIR Senso
Chat with mentor
tinkercad.com/things/aeOzyCjupWm-copy-of-pir-sensor/editel
Update
http://www.myreal...
Gmail
YouTube
Maps
Copy of PIR Sensor
All changes saved
Code
Start Simulation
Send To
Components
Basic
Search
Resistor
LED
Pushbutton
Potentiometer
Capacitor
Slideswitch
9V Battery
Coin Cell 3V Battery
1.5V Battery
Type here to search
ENG
21:18
15-09-2022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Update
http://www.myreal...
Gmail
YouTube
Maps
Copy of PIR Sensor
All changes saved
Simulator time: 00:00:13
Code
Stop Simulation
Send To
1 (Arduino Uno R3)
#include <Servo.h>
Servo myservo;
int led=6;
int pir=2;
int sensorPin = 0;
void setup()
{
pinMode(pir,INPUT);
pinMode(led,OUTPUT);
myservo.attach(9);
Serial.begin(9600);
}
void loop()
{
int val = digitalRead(pir);
Serial.println(val);
if(val==HIGH){
digitalWrite(led,HIGH);
myservo.write(70);
}
else{
digitalWrite(led,LOW);
myservo.write(10);
}
How the debugger works
1. Add breakpoints by clicking on the line numbers.
2. Hover over the variables while paused to see their value.
3. Use the buttons above to resume simulation or step one line at a time.
Serial Monitor
Type here to search
ENG
21:20
15-09-2022

COMPONENTS USED:

PIR1-34.79830677290829, -182.4779542037899, -145.23406374501988, -63.98113091291614 PIR Sensor- 1 quantity

U1-Arduino Uno R3- 1 quantity

SERVO1- Positional Micro Servo- 1 quantity

D1- Red LED- 1 quantity

R1- 1 kΩ Resistor-1 quantity

CODE:

```
#include <Servo.h>

Servo myservo;

int led=6;

int pir=2;

int sensorPin = 0;


void setup()

{

  pinMode(pir,INPUT);

  pinMode(led,OUTPUT);

  myservo.attach(9);

  Serial.begin(9600);


}


void loop()

{

  int val = digitalRead(pir);
```

```
 Serial.println(val);
 if(val==HIGH){
  digitalWrite(led,HIGH);
  myservo.write(70);
 }
 else{
  digitalWrite(led,LOW);
  myservo.write(10);
 }

 delay(10);
  int reading = analogRead(sensorPin);
 //measure the 5v with a meter for an accurate value
 //In particular if your Arduino is USB powered
 float voltage = reading * 4.68;
 voltage /= 1024.0;

 //now print out the temperature
 float temperatureC = (voltage-0.5)*100;

 Serial.print(temperatureC);
 Serial.print("degrees C");
 delay(1000);
}
```

TINKERCAD LINK:

https://www.tinkercad.com/things/aeOzyCjupWm-copy-of-pir-sensor/editel