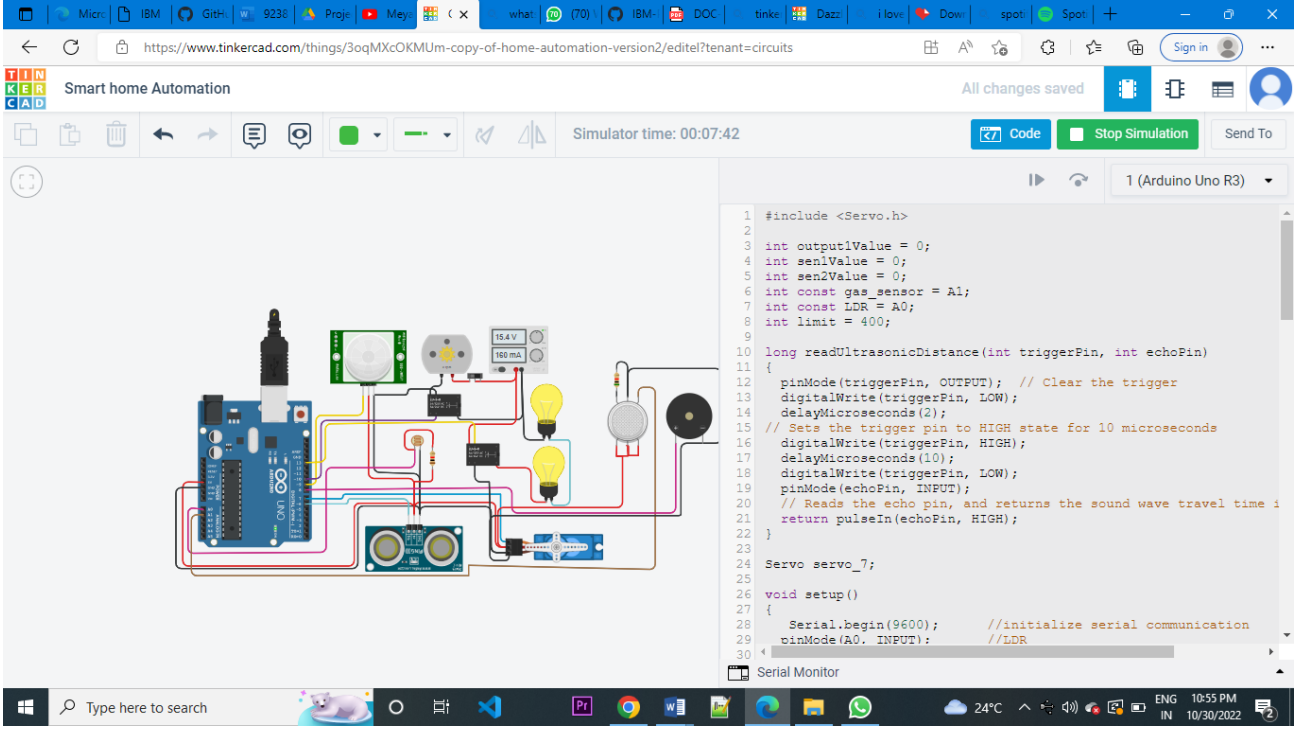


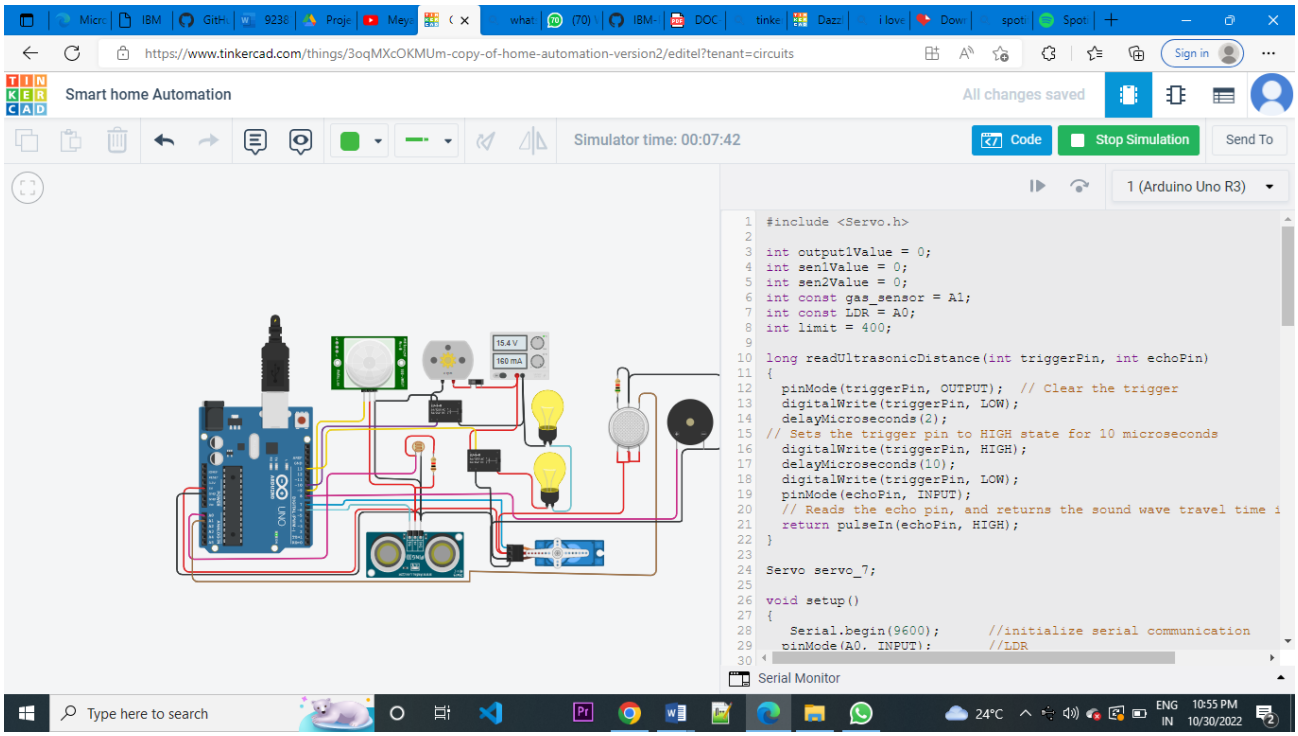
ASSIGNMENT-1

TeamID	PNT2022TMID15011
Project Name	IoT Based Smart Crop Protection System For Agriculture

Question1:

Build a smart home in Thinkercad with 2 sensors, an Led, buzzer and submit it.

CODE:


https://www.tinkercad.com/things/3oqMXcOKMUm-copy-of-home-automation-version2/editel?tenant=circuits
Smart home Automation
All changes saved
Simulator time: 00:07:42
Code
Stop Simulation
Send To
1 (Arduino Uno R3)
#include <Servo.h>
int output1Value = 0;
int sen1Value = 0;
int sen2Value = 0;
int const gas_sensor = A1;
int const LDR = A0;
int limit = 400;
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 i
return pulseIn(echoPin, HIGH);
}
Servo servo_7;
void setup()
{
Serial.begin(9600); //initialize serial communication
pinMode(A0, INPUT); //LDR
Serial Monitor
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24°C
ENG
IN
10:55 PM
10/30/2022

https://www.tinkercad.com/things/3oqMXcOKMUm-copy-of-home-automation-version2/editel?tenant=circuits

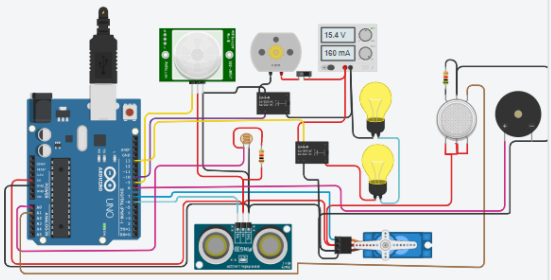
Smart home Automation

All changes saved

Simulator time: 00:00:02

Code | Stop Simulation | Send To

1 (Arduino Uno R3)



```
  if (val > limit)
    {
        tone(8, 650);
    }
    delay(300);
    noTone(8);

//-----------------------------------------------------------------
      //-------  servo motor  ---------//
//-----------------------------------------------------------------
  sen1Value = 0.01723 * readUltrasonicDistance(6, 6);

  if (sen1Value < 100)
    {
        servo_7.write(90);
    Serial.print("    || Door Open!  ; Distance = ");
    Serial.print(sen1Value);
   Serial.print("\n");

    }
  else
    {
        servo_7.write(0);
    Serial.print("    || Door Closed! ; Distance =  ");
    Serial.print(sen1Value);
    Serial.print("\n");
  }
  delay(10); // Delay a little bit to improve simulation performa
}
```

Serial Monitor

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24°C ENG IN 10:55 PM 10/30/2022

https://www.tinkercad.com/things/3oqMXcOKMUm-copy-of-home-automation-version2/editel?tenant=circuits

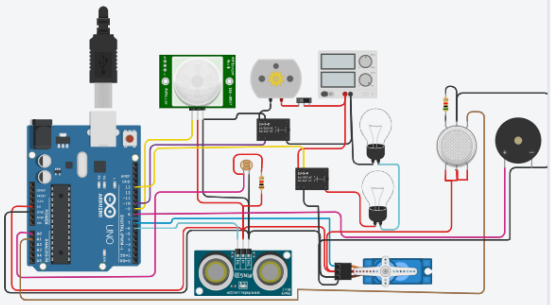
Smart home Automation

All changes saved

Code | Start Simulation | Send To

Text

1 (Arduino Uno R3)



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Serial Monitor

Type here to search

24°C ENG IN 10:55 PM 10/30/2022