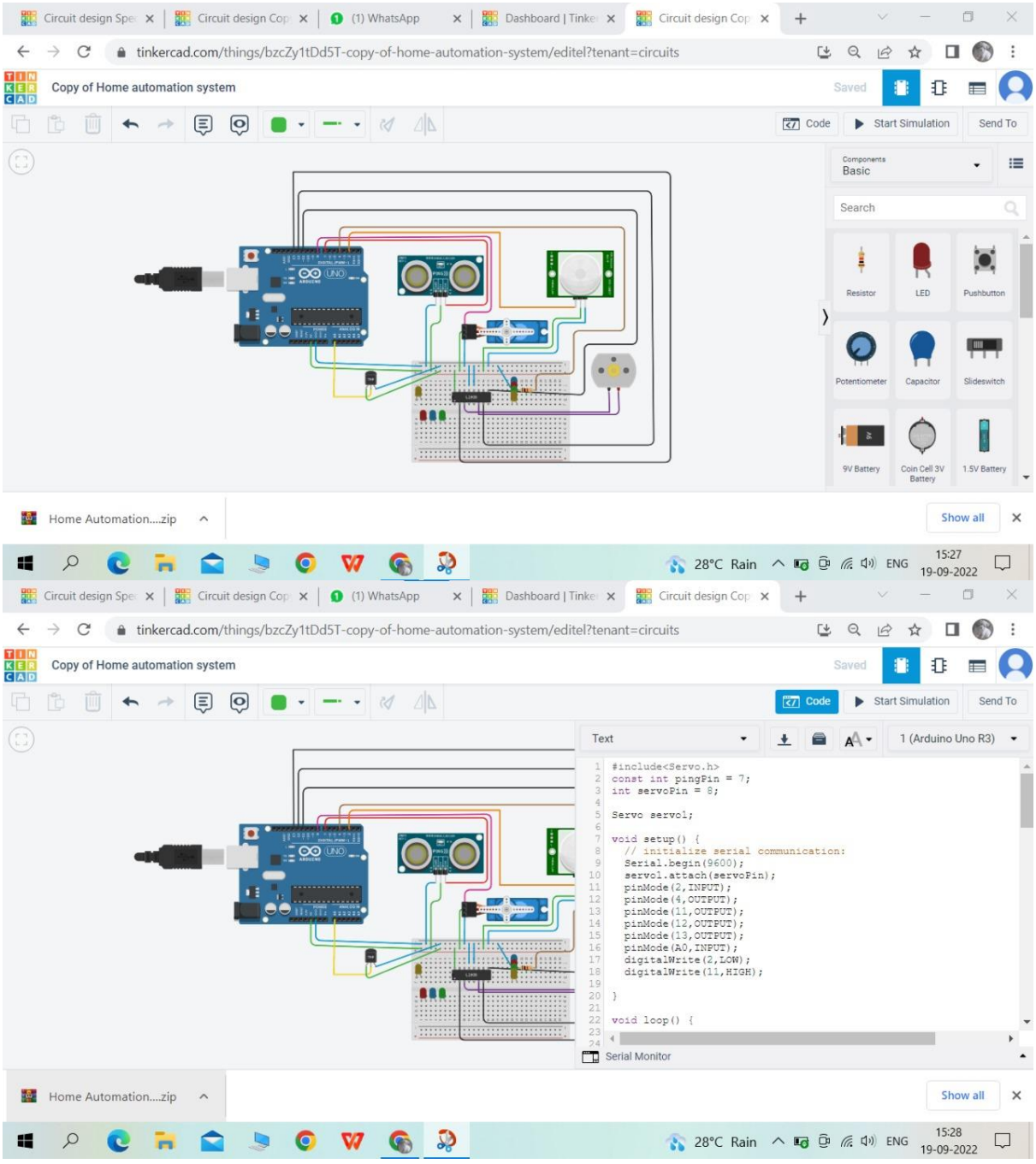
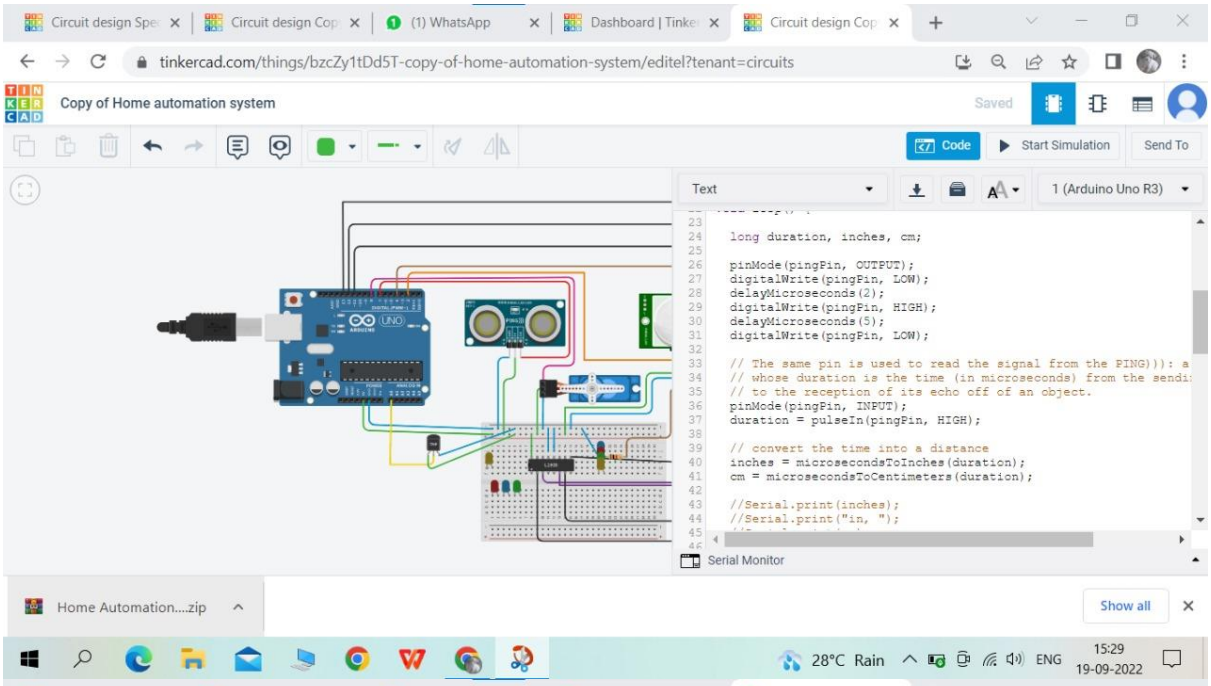
Assignment -1

Home automation using sensors

Assignment Date	19 September 2022
Student Name	Kavitha.D
Student Roll Number	410819106003
Maximum Marks	2 Marks

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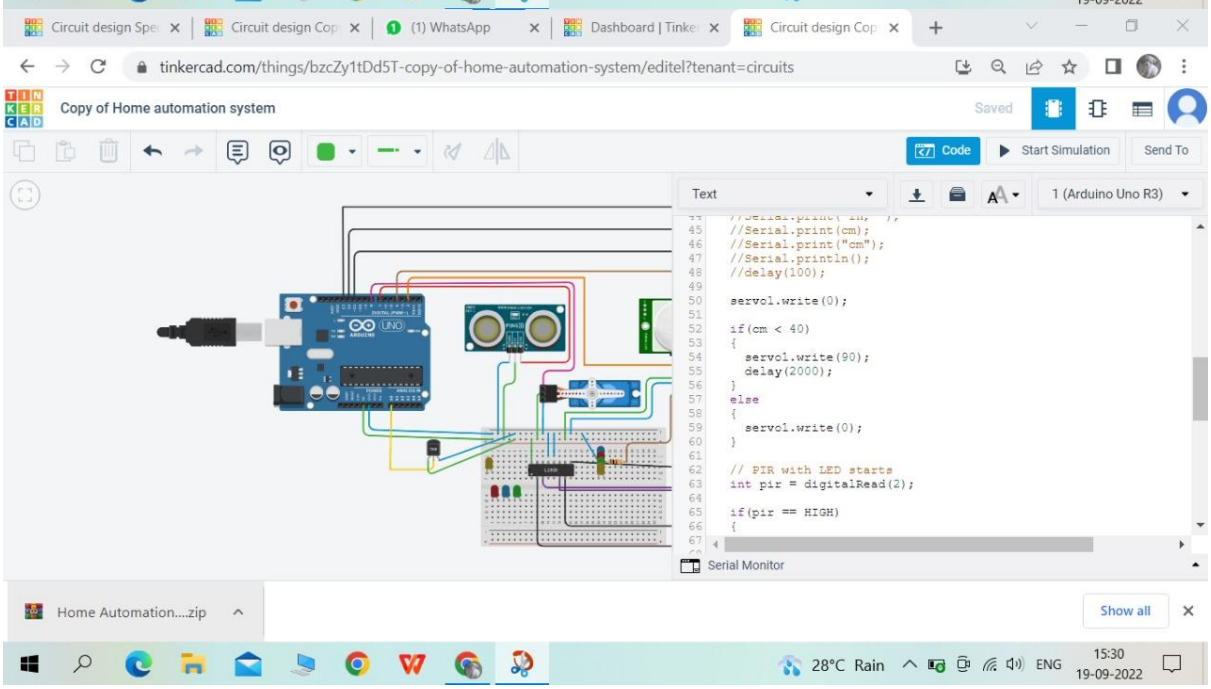
tinkercad.com/things/bzcZy1tDd5T-copy-of-home-automation-system/editel?tenant=circuits
Copy of Home automation system
Saved
Code
Start Simulation
Send To
Text
1 (Arduino Uno R3)
long duration, inches, cm;
pinMode(pingPin, OUTPUT);
digitalWrite(pingPin, LOW);
delayMicroseconds(2);
digitalWrite(pingPin, HIGH);
delayMicroseconds(5);
digitalWrite(pingPin, LOW);
// The same pin is used to read the signal from the PING))): a
// whose duration is the time (in microseconds) from the sendi
// to the reception of its echo off of an object.
pinMode(pingPin, INPUT);
duration = pulseIn(pingPin, HIGH);
// convert the time into a distance
inches = microsecondsToInches(duration);
cm = microsecondsToCentimeters(duration);
//Serial.print(inches);
//Serial.print("in, ");
Serial Monitor
Home Automation....zip
Show all
28°C Rain
ENG
15:29
19-09-2022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Code
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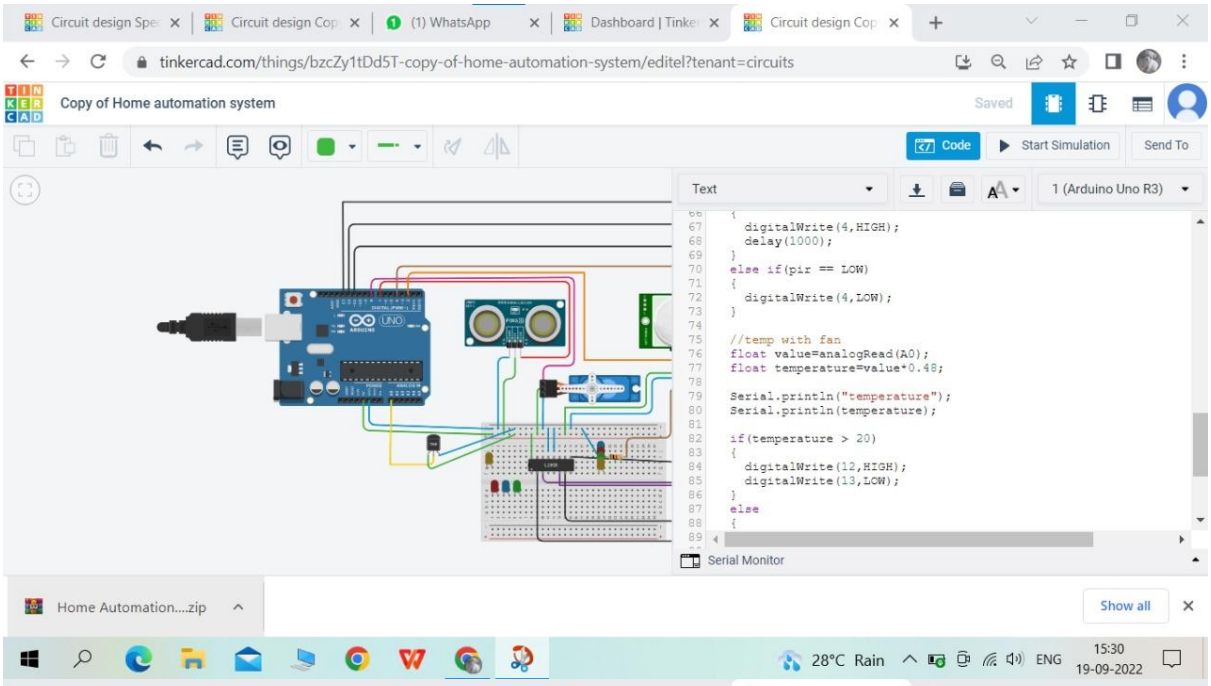
Text
1 (Arduino Uno R3)
//Serial.print(cm);
//Serial.print("cm");
//Serial.println();
//delay(100);
servo1.write(0);
if(cm < 40)
{
servo1.write(90);
delay(2000);
}
else
{
servo1.write(0);
}
// PIR with LED starts
int pir = digitalRead(2);
if(pir == HIGH)
{
Serial Monitor
Home Automation....zip
Show all
28°C Rain
ENG
15:30
19-09-2022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Code
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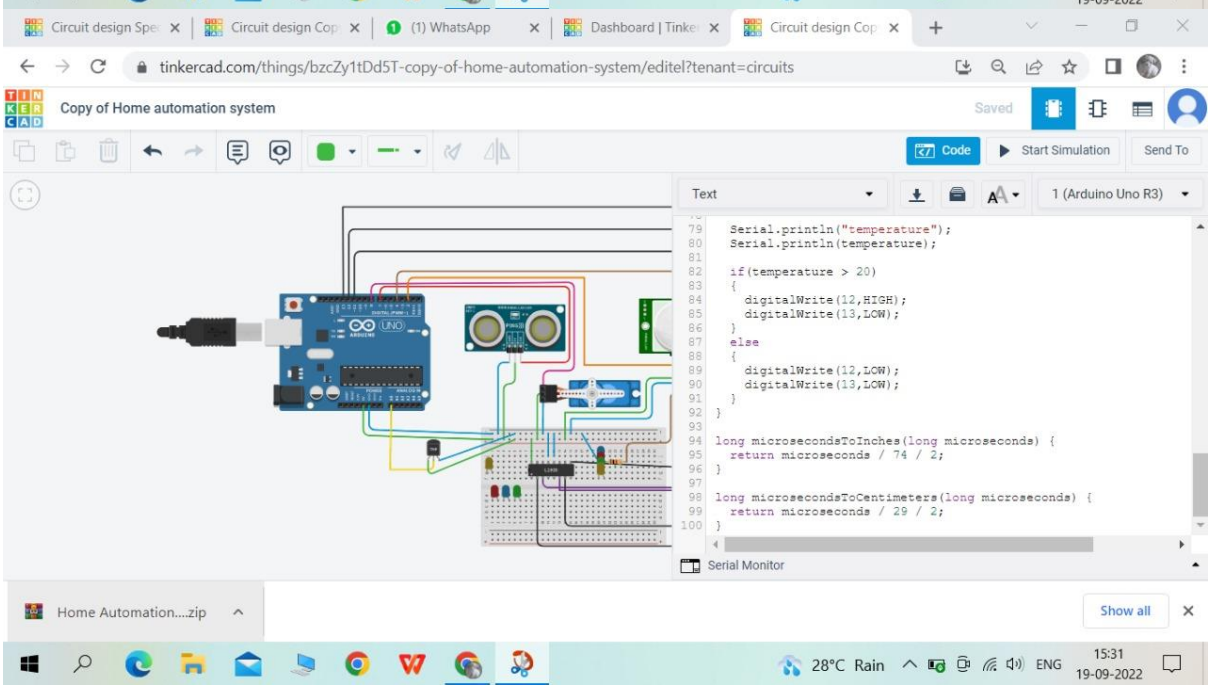
Text
1 (Arduino Uno R3)
digitalWrite(4,HIGH);
delay(1000);
}
else if(pir == LOW)
{
digitalWrite(4,LOW);
}
//temp with fan
float value=analogRead(A0);
float temperature=value*0.48;
Serial.println("temperature");
Serial.println(temperature);
if(temperature > 20)
{
digitalWrite(12,HIGH);
digitalWrite(13,LOW);
}
else
{
Serial Monitor
Home Automation....zip
Show all
28°C Rain
ENG
15:30
19-09-2022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Code
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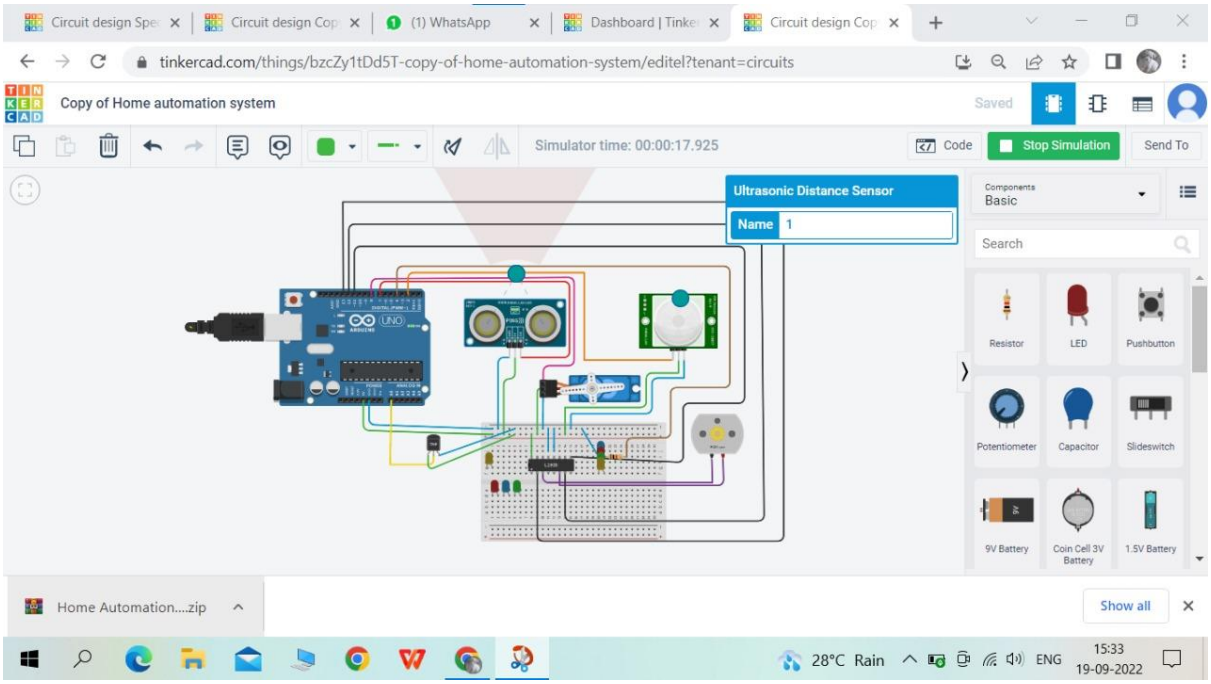
Send To
Text
1 (Arduino Uno R3)
Serial.println("temperature");
Serial.println(temperature);
if(temperature > 20)
{
digitalWrite(12,HIGH);
digitalWrite(13,LOW);
}
else
{
digitalWrite(12,LOW);
digitalWrite(13,LOW);
}
}
long microsecondsToInches(long microseconds) {
return microseconds / 74 / 2;
}
long microsecondsToCentimeters(long microseconds) {
return microseconds / 29 / 2;
}
Serial Monitor
Home Automation....zip
Show all
28°C Rain
ENG
15:31
19-09-2022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Simulator time: 00:00:17.925
Code
Stop Simulation
Send To
Ultrasonic Distance Sensor
Name
1
Components
Basic
Search
Resistor
LED
Pushbutton
Potentiometer
Capacitor
Slideswitch
9V Battery
Coin Cell 3V Battery
1.5V Battery
Home Automation....zip
Show all
28°C Rain
ENG
15:33
19-09-2022