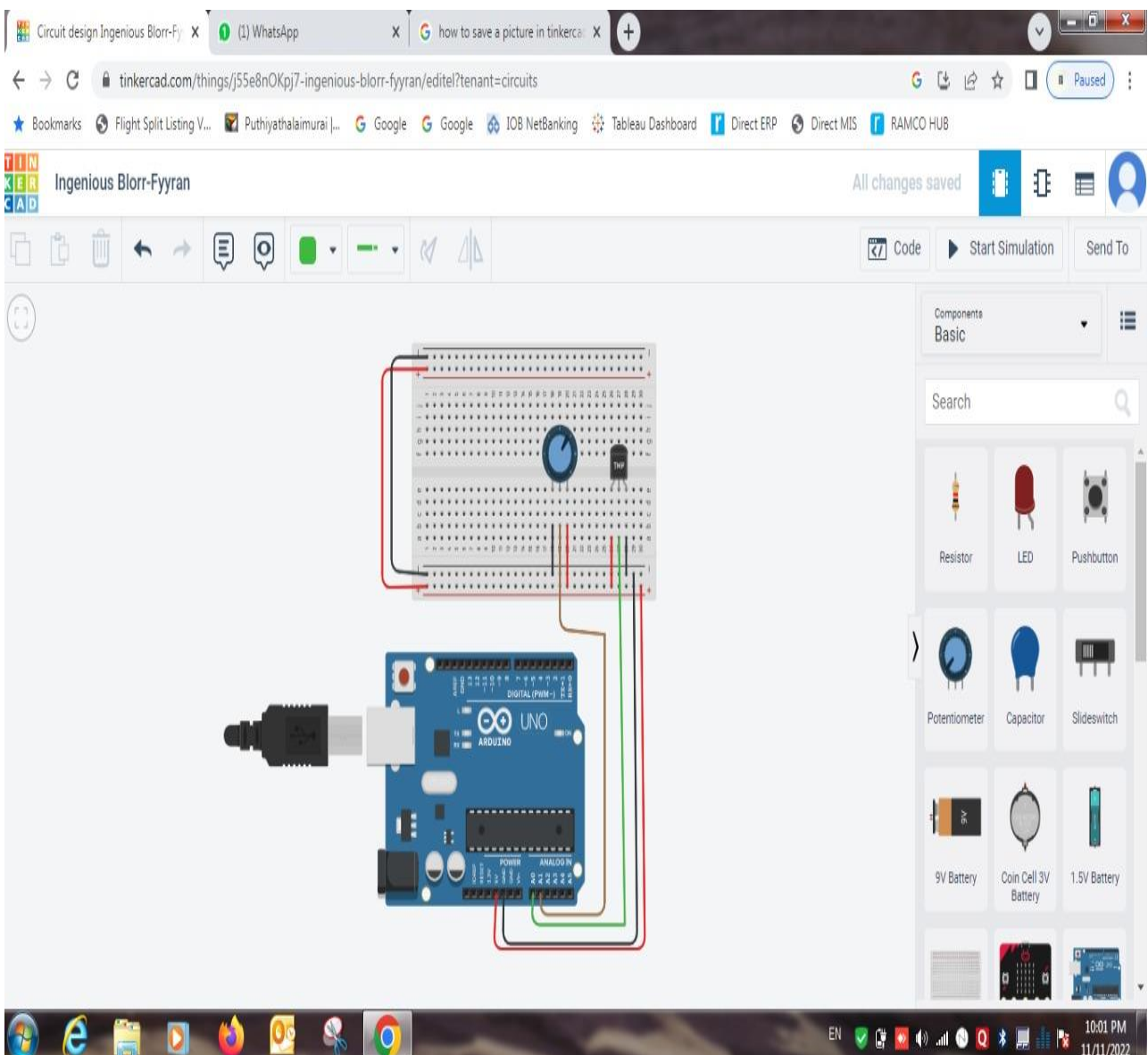


Date	1 NOVEMBER 2022
Team ID	PNT2022TMID01115
Project Name	Project-Hazardous Area Monitoring for Industrial Plant powered by IoT

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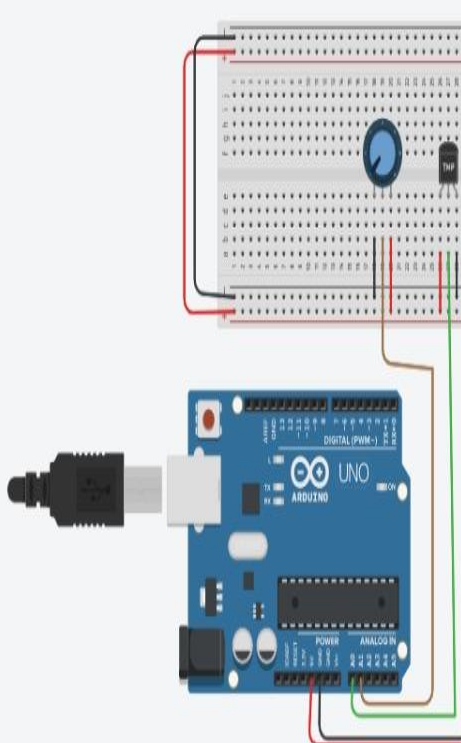
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Code Start Simulation Send To

Text 1 (Arduino Uno R3)



```
1 const int analogIn = A0;
2 int humiditySensorOutput = 0;
3 // Defining Variables
4 int RawValue = 0;
5 double Voltage = 0;
6 double tempC = 0;
7 double tempF = 0;
8
9 void setup(){
10   Serial.begin(9600);
11   pinMode(A1, INPUT);
12 }
13
14 void loop(){
15
16   RawValue = analogRead(analogIn);
17   Voltage = (RawValue / 1023.0) * 5000; // 5000 to get millivots.
18   tempC = (Voltage-500) * 0.1; // 500 is the offset
19   tempF = (tempC * 1.8) + 32; // convert to F
20   Serial.print("Raw Value = ");
21   Serial.print(RawValue);
22   Serial.print("\t milli volts = ");
23   Serial.print(Voltage,0); //
24   Serial.print("\t Temperature in C = ");
25   Serial.print(tempC,1);
26   Serial.print("\t Temperature in F = ");
27   Serial.println(tempF,1);
28 }
```

Serial Monitor

10:09 PM 11/11/2022

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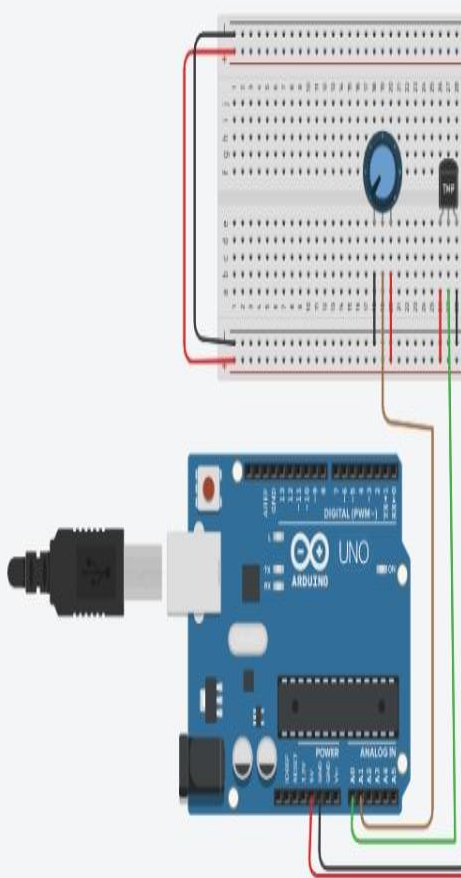
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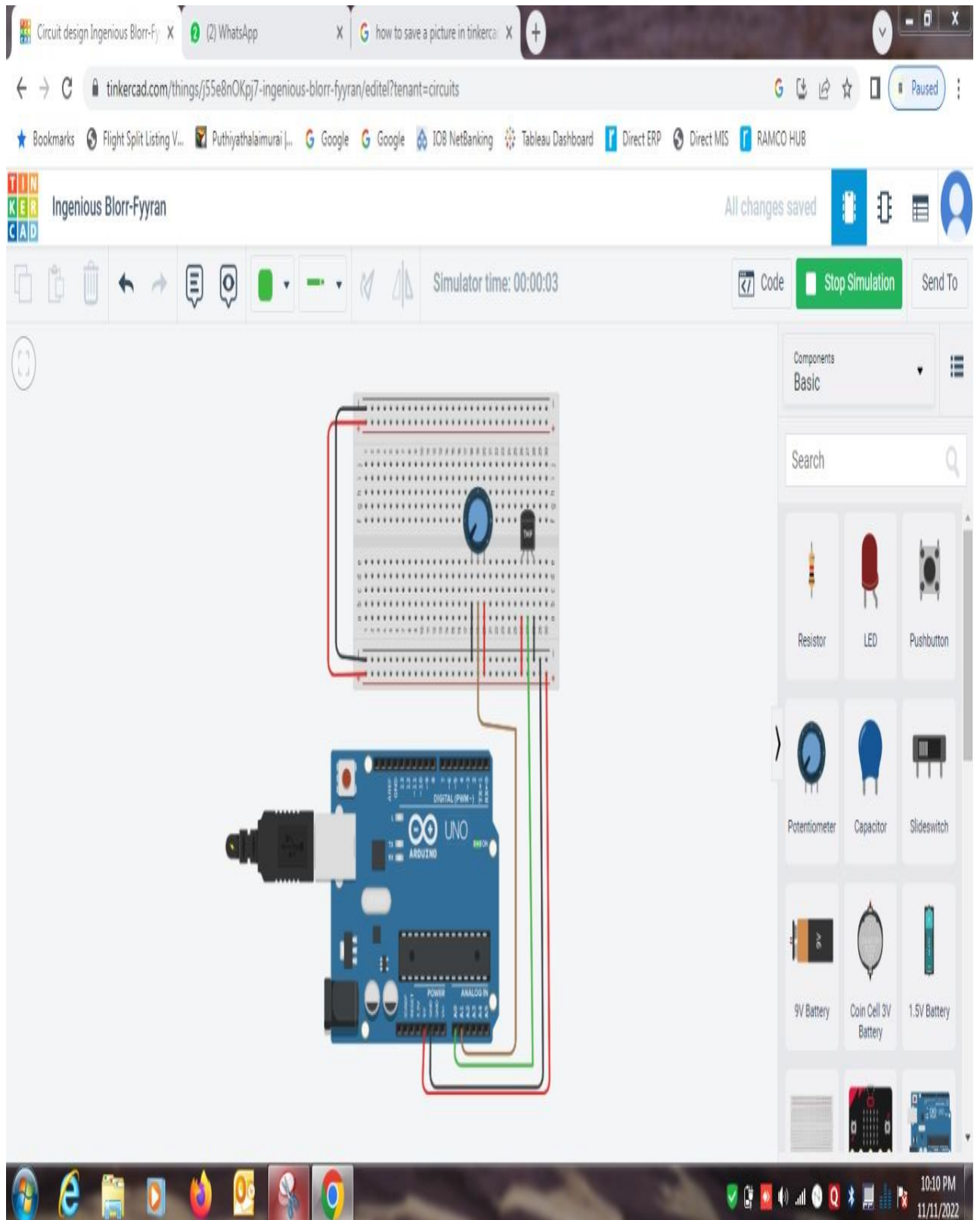
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Code Start Simulation Send To

Text 1 (Arduino Uno R3)



```
9 void setup(){
10   Serial.begin(9600);
11   pinMode(A1, INPUT);
12 }
13
14 void loop(){
15
16   RawValue = analogRead(analogIn);
17   Voltage = (RawValue / 1023.0) * 5000; // 5000 to get millivots.
18   tempC = (Voltage-500) * 0.1; // 500 is the offset
19   tempF = (tempC * 1.8) + 32; // convert to F
20   Serial.print("Raw Value = ");
21   Serial.print(RawValue);
22   Serial.print("\t milli volts = ");
23   Serial.print(Voltage,0); //
24   Serial.print("\t Temperature in C = ");
25   Serial.print(tempC,1);
26   Serial.print("\t Temperature in F = ");
27   Serial.println(tempF,1);
28   humiditySensorOutput = analogRead(A1);
29   Serial.print("Humidity: "); // Printing out Humidity Percentage
30   Serial.print(map(humiditySensorOutput, 0, 1023, 10, 70));
31   Serial.println("%");
32
33   delay(5000); //iterate every 5 seconds
34
35 }
```



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Simulator time: 00:00:49

Code Stop Simulation Send To

1 (Arduino Uno R3)

```
9 void setup(){
10   Serial.begin(9600);
11   pinMode(A1, INPUT);
12 }
13
14 void loop(){
15
16   RawValue = analogRead(analogIn);
17   Voltage = (RawValue / 1023.0) * 5000; // 5000 to get millivots.
18   tempC = (Voltage-500) * 0.1; // 500 is the offset
19   tempF = (tempC * 1.8) + 32; // convert to F
20   Serial.print("Raw Value = ");
21   Serial.print(RawValue);
22   Serial.print("\t milli volts = ");
23   Serial.print(Voltage,0); //
24   Serial.print("\t Temperature in C = ");
25   Serial.print(tempC,1);
26 }
```

Serial Monitor

Humidity: 46%			
Raw Value = 153	milli volts = 748	Temperature in C = 24.8	Temperature in F = 76.6
Humidity: 10%			
Raw Value = 153	milli volts = 748	Temperature in C = 24.8	Temperature in F = 76.6
Humidity: 10%			
Raw Value = 153	milli volts = 748	Temperature in C = 24.8	Temperature in F = 76.6
Humidity: 10%			

Send Clear

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Simulator time: 00:01:15

Code

Stop Simulation

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1 (Arduino Uno R3)

void setup(){
 Serial.begin(9600);
 pinMode(A1, INPUT);
}

void loop(){
 RawValue = analogRead(analogIn);
 Voltage = (RawValue / 1023.0) * 5000; // 5000 to get millivots.
 tempC = (Voltage-500) * 0.1; // 500 is the offset
 tempF = (tempC * 1.8) + 32; // convert to F
 Serial.print("Raw Value = ");
 Serial.print(RawValue);
 Serial.print("\t milli volts = ");
 Serial.print(Voltage,0); //
 Serial.print("\t Temperature in C = ");
 Serial.print(tempC,1);
}

Serial Monitor
Raw Value = 153 milli volts = 748 Temperature in C = 24.8 Temperature in F = 76.6
Humidity: 10%
Raw Value = 153 milli volts = 748 Temperature in C = 24.8 Temperature in F = 76.6
Humidity: 38%
Raw Value = 153 milli volts = 748 Temperature in C = 24.8 Temperature in F = 76.6
Humidity: 42%
Raw Value = 153 mil

Send

Clear

Waveform

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Simulator time: 00:02:00

Code

Stop Simulation

Send To

1 (Arduino Uno R3)

void setup(){
 Serial.begin(9600);
 pinMode(A1, INPUT);
}

void loop(){
 RawValue = analogRead(analogIn);
 Voltage = (RawValue / 1023.0) * 5000; // 5000 to get millivots.
 tempC = (Voltage-500) * 0.1; // 500 is the offset
 tempF = (tempC * 1.8) + 32; // convert to F
 Serial.print("Raw Value = ");
 Serial.print(RawValue);
 Serial.print("\t milli volts = ");
 Serial.print(Voltage,0); //
 Serial.print("\t Temperature in C = ");
 Serial.print(tempC,1);
}

Serial Monitor
Raw Value = 153 milli volts = 748 Temperature in C = 24.8 Temperature in F = 76.6
Humidity: 78%
Raw Value = 153 milli volts = 748 Temperature in C = 24.8 Temperature in F = 76.6
Humidity: 78%
Raw Value = 153 milli volts = 748 Temperature in C = 24.8 Temperature in F = 76.6
Humidity: 78%
Raw Value =

Send

Clear

Waveform