ASSIGNMENT 4

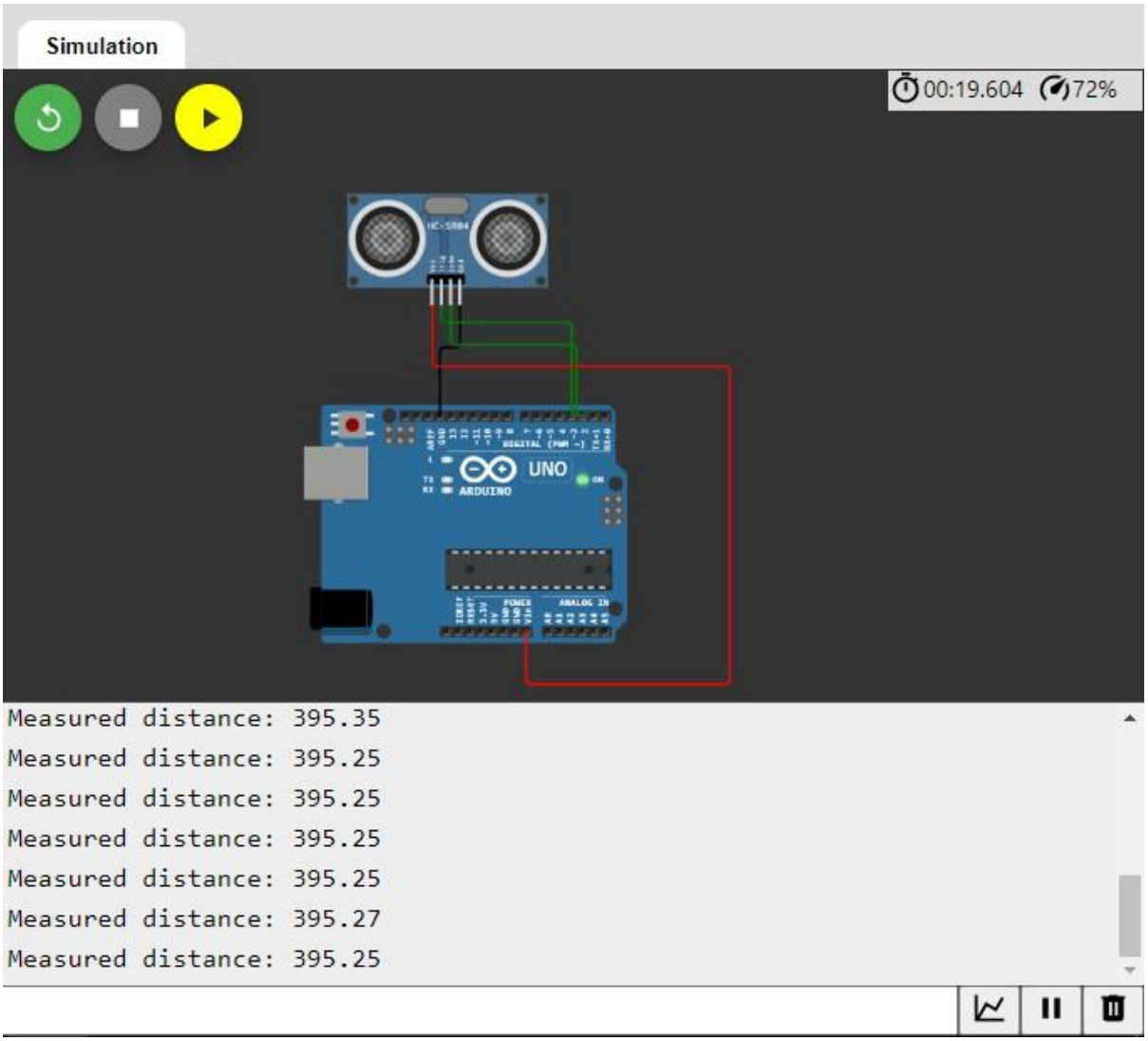
Date	27 October 2022
Team ID	PNT2022TMID18446
Project Name	Smart Farmer-IOT Enabled Smart Farming Application
Maximum Marks	2 Marks

SOLUTION:

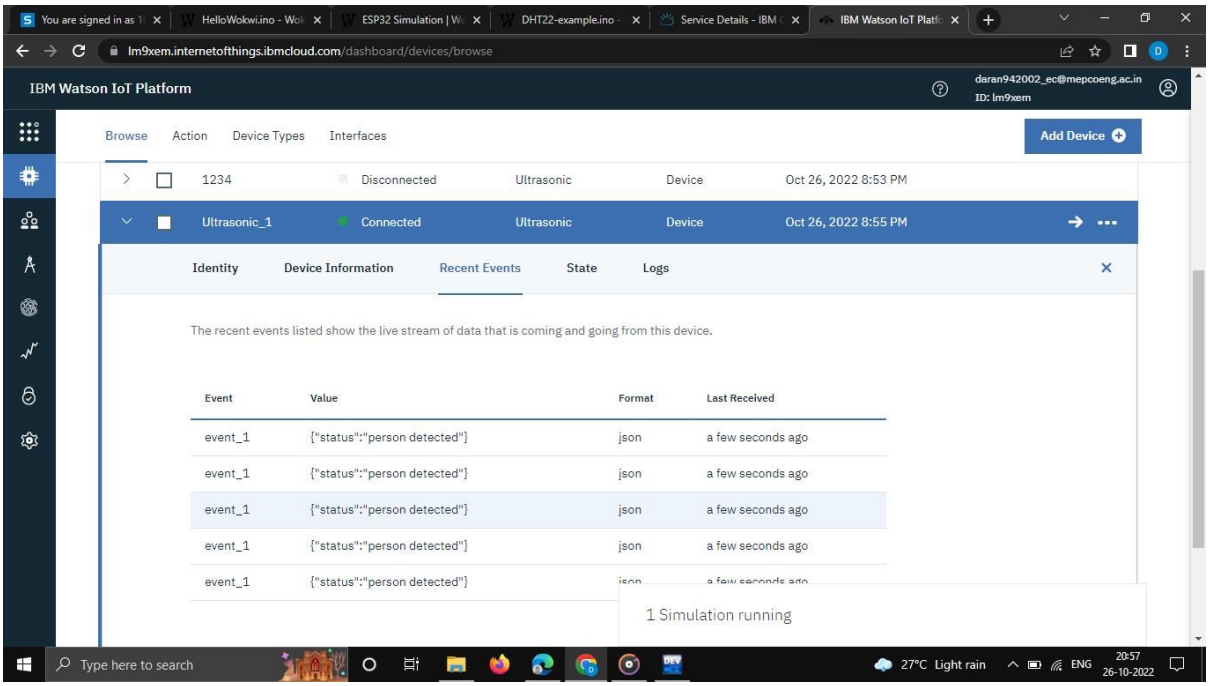
Code:

```
#define ECHO_PIN 2
#define TRIG_PIN 3
void setup() {
Serial.begin(9600);
 pinMode(TRIG_PIN, OUTPUT);
 pinMode(ECHO_PIN, INPUT);
}
float readDistanceCM() {
 digitalWrite(TRIG_PIN, LOW);
 delayMicroseconds(2);
 digitalWrite(TRIG_PIN, HIGH);
 delayMicroseconds(10);
 digitalWrite(TRIG_PIN, LOW);
 int duration = pulseIn(ECHO_PIN, HIGH);
 return duration * 0.034 / 2;
}
void loop() {
 float distance = readDistanceCM();
if(distance <= 100)
{
 Serial.println("person detected ");
}
else{
Serial.print("Measured distance: ");
 Serial.println(readDistanceCM());
}
 delay(1000);
}
```

Simulation:


Simulation
00:19.604
72%
UNO
ARDUINO
Measured distance: 395.35
Measured distance: 395.25
Measured distance: 395.25
Measured distance: 395.25
Measured distance: 395.25
Measured distance: 395.27
Measured distance: 395.25

IBM WATSON:


IBM Watson IoT Platform
lm9xem.internetofthings.ibmcloud.com/dashboard/devices/browse
daran942002_ec@mepcoeng.ac.in
ID: lm9xem
Browse
Action
Device Types
Interfaces
Add Device
1234
Disconnected
Ultrasonic
Device
Oct 26, 2022 8:53 PM
Ultrasonic_1
Connected
Ultrasonic
Device
Oct 26, 2022 8:55 PM
Identity
Device Information
Recent Events
State
Logs
The recent events listed show the live stream of data that is coming and going from this device.
Event
Value
Format
Last Received
event_1
{"status":"person detected"}
json
a few seconds ago
1 Simulation running
Type here to search
27°C Light rain
ENG
20:57
26-10-2022