Assignment -4

Assignment Date	03 NOVEMBER 2022
Student Name	Shanmugapriya S
Team ID	PNT2022TMID33019
Project Name	Project-Real time river water quality monitoring and control system
Maximum Marks	2 Marks

Question-1:

Write code and connections in wokwi for ultrasonic. Whenever distance is less than 100 cms send "alert" to ibm cloud and display in device recent events.

Solution:

```
#define ECHO_PIN 2

#define TRIG_PIN 3

#define organization = "mmbh4c"

#define deviceType = "Ultrasonic"

#define deviceId = "pga460_sensor"

#define authMethod = "use-token-auth"

#define authToken = "123456789" 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;

}
```
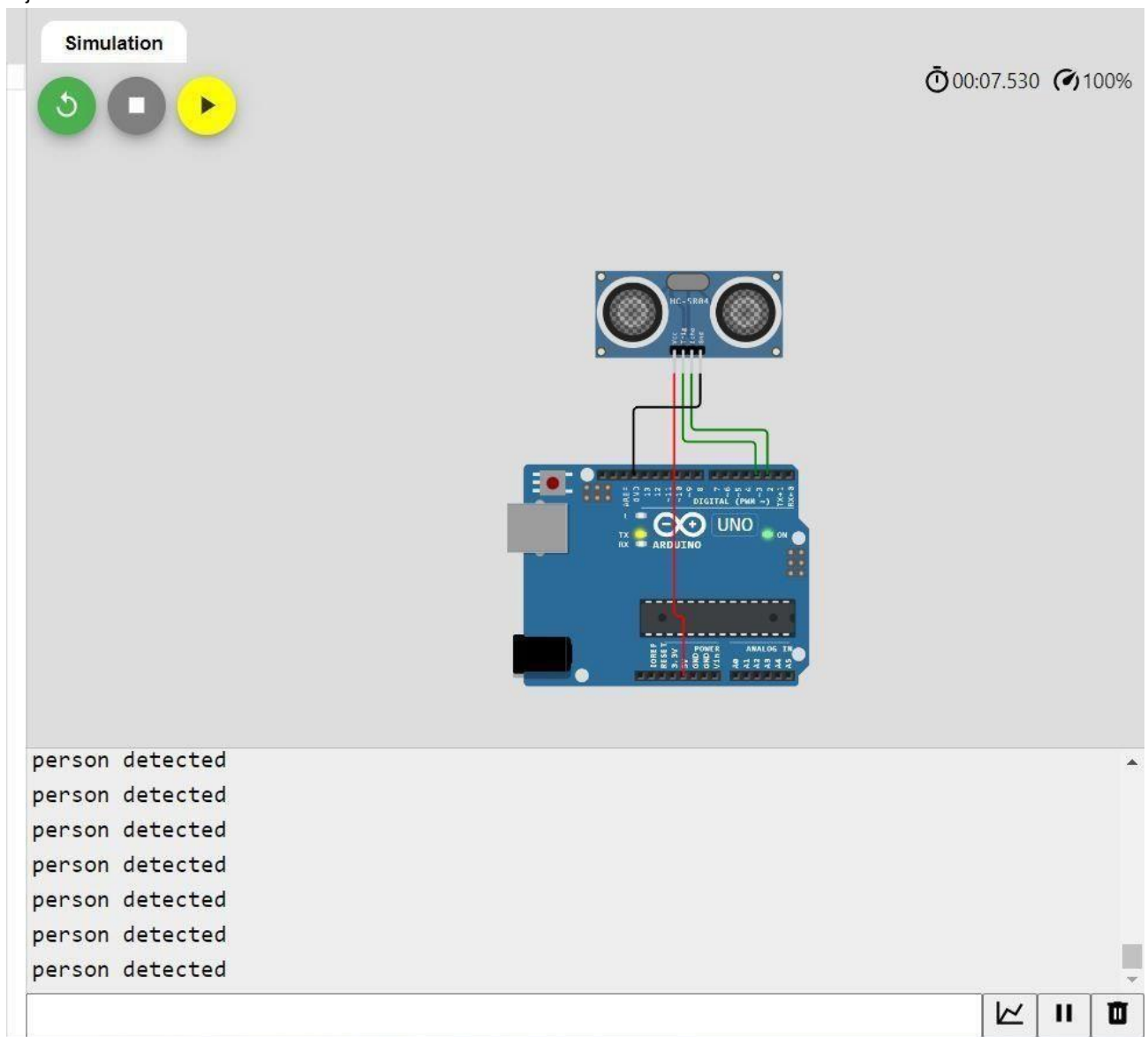
```cpp
void loop() { float distance =
 readDistanceCM(); if(distance <=
 100)
{
    Serial.println("person detected ");
}
else{
Serial.print("Measured distance: ");
  Serial.println(readDistanceCM());
}
  delay(1000);
}
```



```
person detected
person detected
person detected
person detected
person detected
person detected
person detected
```

Wokwi Link: https://wokwi.com/projects/34666287045176594

IBM Cloud

<u>Device Recent Events</u>