ASSIGNMENT-4

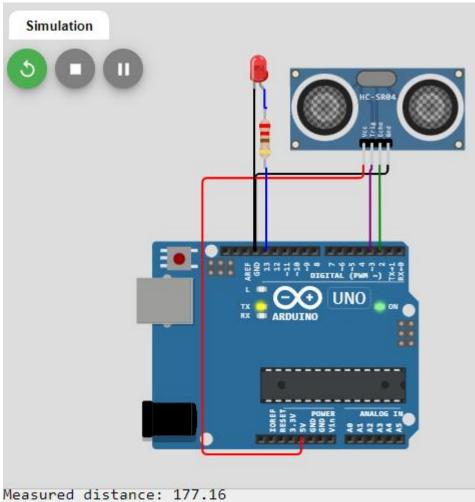
TEAM ID: PNT2022TMID00516
PROJECT NAME: REAL-TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM

Problem Statement: Write code and connection in wokwi for ultrasonic sensor whenever distance is less than 100 cms send alert to ibm cloud and display in device recent events.

Code:

```
# define ECHO PIN 2
# define TRIG PIN 3
Void setup () {
Serial.begin(115200);
pinMode(LED BUILTIN, OUTPUT);
pinMode(TRIG PIN, OUTPUT);
pinMode(ECHO PIN, INPUT);
Float readDistanceCM() {
digitalWrite(TRIG PIN, LOW);
delayMicroseconds(2);
degitalWrite(TRIG PIN, HIGH);
delayMicroseconds(10);
degitalWrite(TRIG PIN, LOW);
int duration = pulseIn(ECHO PIN, HIGH);
return duration * 0.034/2;
void loop() {
float distance = readDistanceCM();
bool isNearby = distance < 100;
digitalWrite(LED BUILTIN, isNearby);
Serial.print("Measured distance: "); Serial.print1n(readDistanceCM());
delay(100); }
```

Output:



Measured distance: 177.16 Measured distance: 177.26 Measured distance: 177.24