IBM Assingment-4

Write code and connections in wokwi for ultrasonic sensor.

Whenever distance is less than 100 cms send "alert" to ibm cloud and display in device

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CODING:

```c
/*
HC-SR04 Ultrasonic Sensor Example.

  Turn the LED on when an object is within 100cm range.

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*/

#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);
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();

  bool isNearby = distance < 100;
digitalWrite(LED_BUILTIN, isNearby);
```
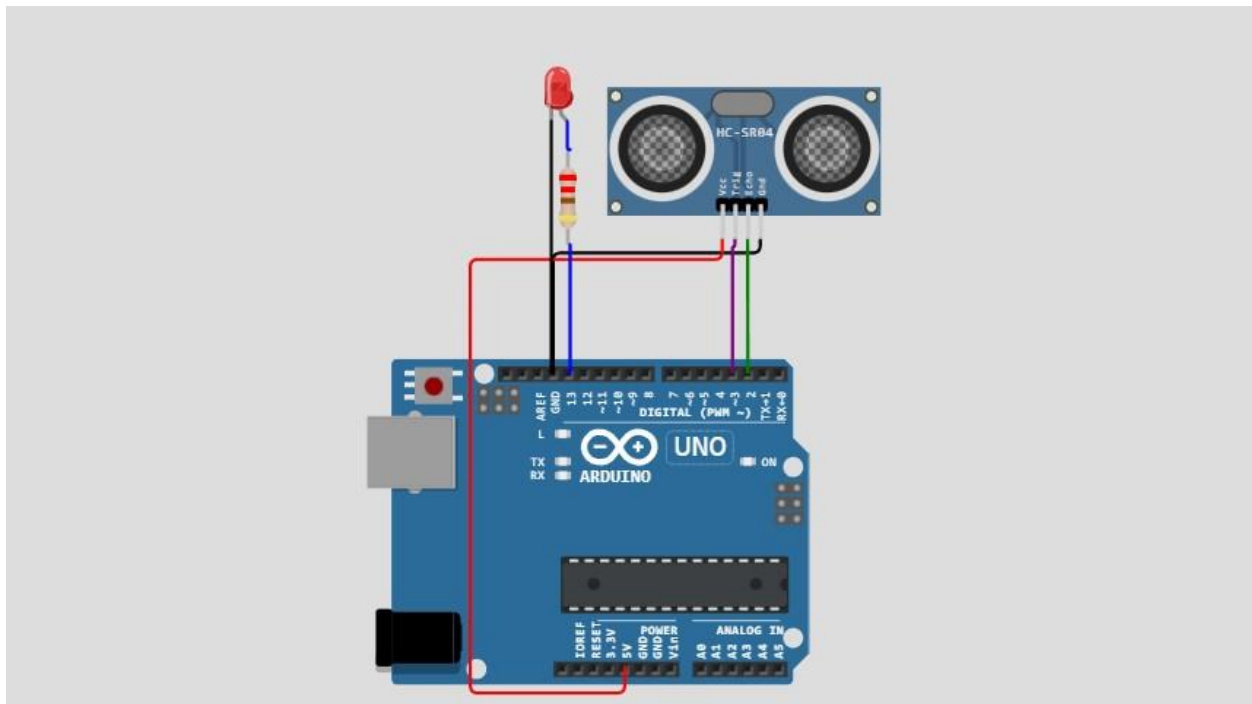
```
  Serial.print("Measured distance: ");
  Serial.println(readDistanceCM());

  delay(100);
}
```

OUTPUT:

Link: