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write code and connections in wokwi for ultrasonic sensor:

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);

  digitalWrite(TRIG_PIN, HIGH);

  delayMicroseconds(10);

  digitalWrite(TRIG_PIN, LOW);

  int duration = pulseIn(ECHO_PIN, HIGH);
```

```cpp
    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:


```
Measured distance: 177.16
Measured distance: 177.26
Measured distance: 177.16
Measured distance: 177.26
Measured distance: 177.16
Measured distance: 177.26
Measured distance: 177.16
```