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// Pin definitions
const int echoPin = 7; // Echo pin
const int trigPin = 13; // Trigger pin

void setup() {
    Serial.begin(9600); // Initialize serial communication
    pinMode(trigPin, OUTPUT);
    pinMode(echoPin, INPUT);
}

void loop() {
    long duration, inches, cm;

    // Trigger the sensor
    digitalWrite(trigPin, LOW);
    delayMicroseconds(2);
    digitalWrite(trigPin, HIGH);
    delayMicroseconds(10); // Short HIGH pulse
    digitalWrite(trigPin, LOW);

    // Read the duration of the echo
    duration = pulseIn(echoPin, HIGH);

    // Convert duration to distance
    inches = microsecondsToInches(duration);
    cm = microsecondsToCentimeters(duration);

    // Print the results
    Serial.print(inches);
    Serial.print(" in, ");
    Serial.print(cm);
    Serial.print(" cm\n");

    delay(100); // Delay between readings
}

long microsecondsToInches(long microseconds) {
    return microseconds / 74 / 2; // Conversion to inches
}

long microsecondsToCentimeters(long microseconds) {
    return microseconds / 29 / 2; // Conversion to centimeters
}

```