

```

int LevelSensorVal = 0;

int echoPin = 0;

int triggerPin = 0;

long readUltrasonicDistance(int triggerPin, int echoPin)
{
    pinMode(triggerPin, OUTPUT); // Clear the trigger
    digitalWrite(triggerPin, LOW);
    delayMicroseconds(2);
    // Sets the trigger pin to HIGH state for 10 microseconds
    digitalWrite(triggerPin, HIGH);
    delayMicroseconds(10);
    digitalWrite(triggerPin, LOW);
    pinMode(echoPin, INPUT);
    // Reads the echo pin, and returns the sound wave travel time in microseconds
    return pulseIn(echoPin, HIGH);
}

void setup()
{
    Serial.begin(9600);

    pinMode(8, OUTPUT);
    pinMode(9, OUTPUT);
    pinMode(5, OUTPUT);
}

void loop()
{
    echoPin = 3;
    triggerPin = 2;
    LevelSensorVal = 0.01723 * readUltrasonicDistance(2, 3);
    Serial.println("Level Control System");
    Serial.println(LevelSensorVal);
    if (LevelSensorVal <= 40) {
        Serial.println("Tank is FULL");
        digitalWrite(8, HIGH);
        digitalWrite(9, HIGH);
        tone(5, 19, 1000); // play tone 3 (D#0 = 19 Hz)
    }
    if (LevelSensorVal >= 300) {
        Serial.println("Tank is EMPTY");
        digitalWrite(8, LOW);
        digitalWrite(9, HIGH);
    }
    delay(10); // Delay a little bit to improve simulation performance
}

```