Wokwi link: https://wokwi.com/projects/362728386122881025

Code:

```
#include <EEPROM.h>
#include <LiquidCrystal.h>
LiquidCrystal lcd(2,3,4,5,6,7);
long duration, inches;
int set_val,percentage;
bool state,pump;
void setup() {
  lcd.begin(16, 2);
  lcd.print("WATER LEVEL: 0% ");
  lcd.setCursor(0, 1);
  lcd.print("PUMP:OFF MANUAL");
  pinMode(8, OUTPUT);
  pinMode(9, INPUT);
  pinMode(10, INPUT_PULLUP);
  pinMode(11, INPUT_PULLUP);
  pinMode(12, OUTPUT);
   set_val=EEPROM.read(0);
   if(set_val>150)set_val=150;
}
void loop() {
```

```
digitalWrite(3, LOW);
delayMicroseconds(2);
digitalWrite(8, HIGH);
delayMicroseconds(10);
digitalWrite(8, LOW);
duration = pulseIn(9, HIGH);
inches = microsecondsToInches(duration);
percentage=(set_val-inches)*100/set_val;
lcd.setCursor(12, 0);
if(percentage<0)percentage=0;
lcd.print(percentage);
lcd.print("%  ");
if(percentage<30&digitalRead(11))pump=1;
if(percentage>99)pump=0;
digitalWrite(12,!pump);
lcd.setCursor(5, 1);
if(pump==1)lcd.print("ON ");
else if(pump==0) lcd.print("OFF");
 lcd.setCursor(9, 1);
 if(!digitalRead(11))lcd.print("MANUAL");
 else lcd.print("AUTO  ");
 if(!digitalRead(10)&!state&digitalRead(11)){
 state=1;
   set_val=inches;
   EEPROM.write(0, set_val);
```

```
    }
     if(!digitalRead(10)&!state&!digitalRead(11)){
      state=1;
      pump=!pump;
     }
   if(digitalRead(10))state=0;
   delay(500);
}
long microsecondsToInches(long microseconds) {
  return microseconds / 74 / 2;
}
```

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