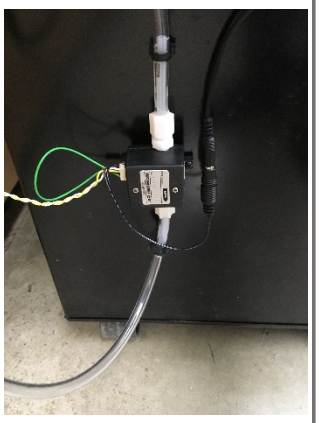
Apparatus

- 3 (4 L) tanks labeled for “RO or DI water only”
    - 2 caps have one hole for tubing, 1 has two holes for tubing.
    - 2 have open-ended tubing attached, 1 has a fitting on the tubing to attach to the flowmeter
- 2 peristaltic pumps
- 1 flowmeter
- 4 lengths of size 25 tubing
    - 2 attached to two of the tanks, 1 attached to the last tank, leading to flowmeter and 1 coming from the flowmeter

Procedures

- Fill the tanks with DI water to the desired level
- Secure the third tubing to the flowmeter, screwing it on finger-tight
- Place exit tubing into the desired vessel
- Plug in the power strip and make sure the 2 pumps and flowmeter are plugged in to it and that the power is switched to “Reset”
- Connect the multimeter with the red lead connected to the V port and the black lead connected to the COM port
- Set the multimeter to read Volts DC, represented by the V with a solid and a dashed line over it
- Check flowmeter calibration by running water from the third tank through the flowmeter into a graduated cylinder for one minute. Record the voltage reading from the multimeter, the level in the cylinder and the total time elapsed.
- Place the end of the last tube, coming from the flowmeter into the drain
- Load the tubing into the pump (be sure not to pinch the tubing in the front of the pump)
- Turn the pumps on by flipping the power switch on front
- Set the desired flowrate for each pump
- Press “Start” on each pump
- Note the level in each tank over time
- Record the voltage reading on the flowmeter over time



Link to Flowmeter Instructions:
http://uolab.groups.et.byu.net/files/labview/hints/flowsensors_instruction_manual.pdf

Flowmeter calibration sheet:

http://uolab.groups.et.byu.net/files/labview/hints/flowsensors_calibration_19418.pdf