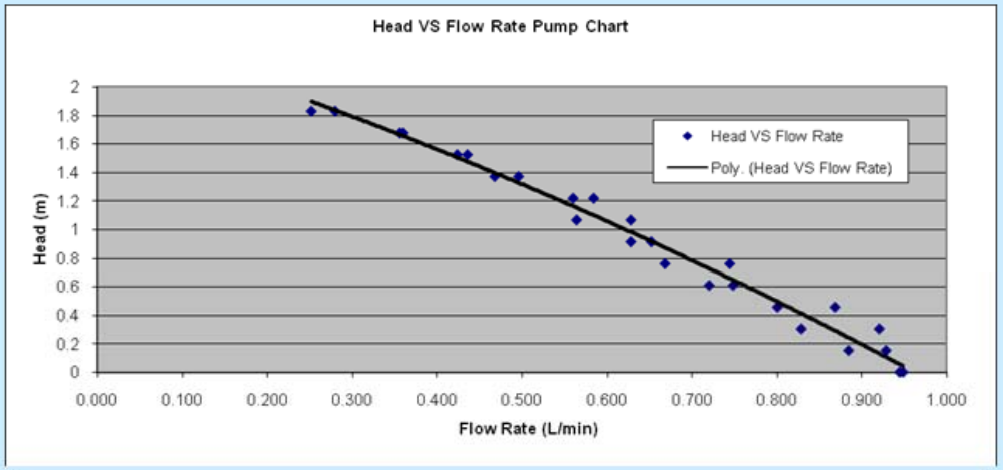
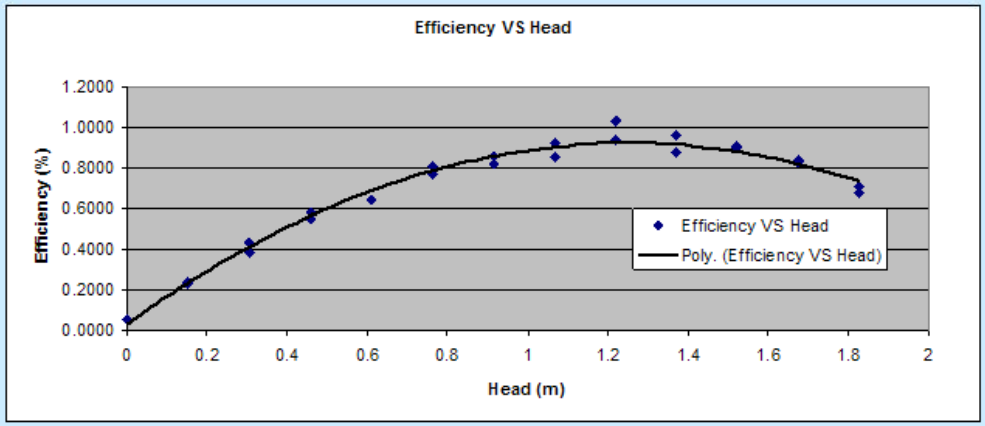
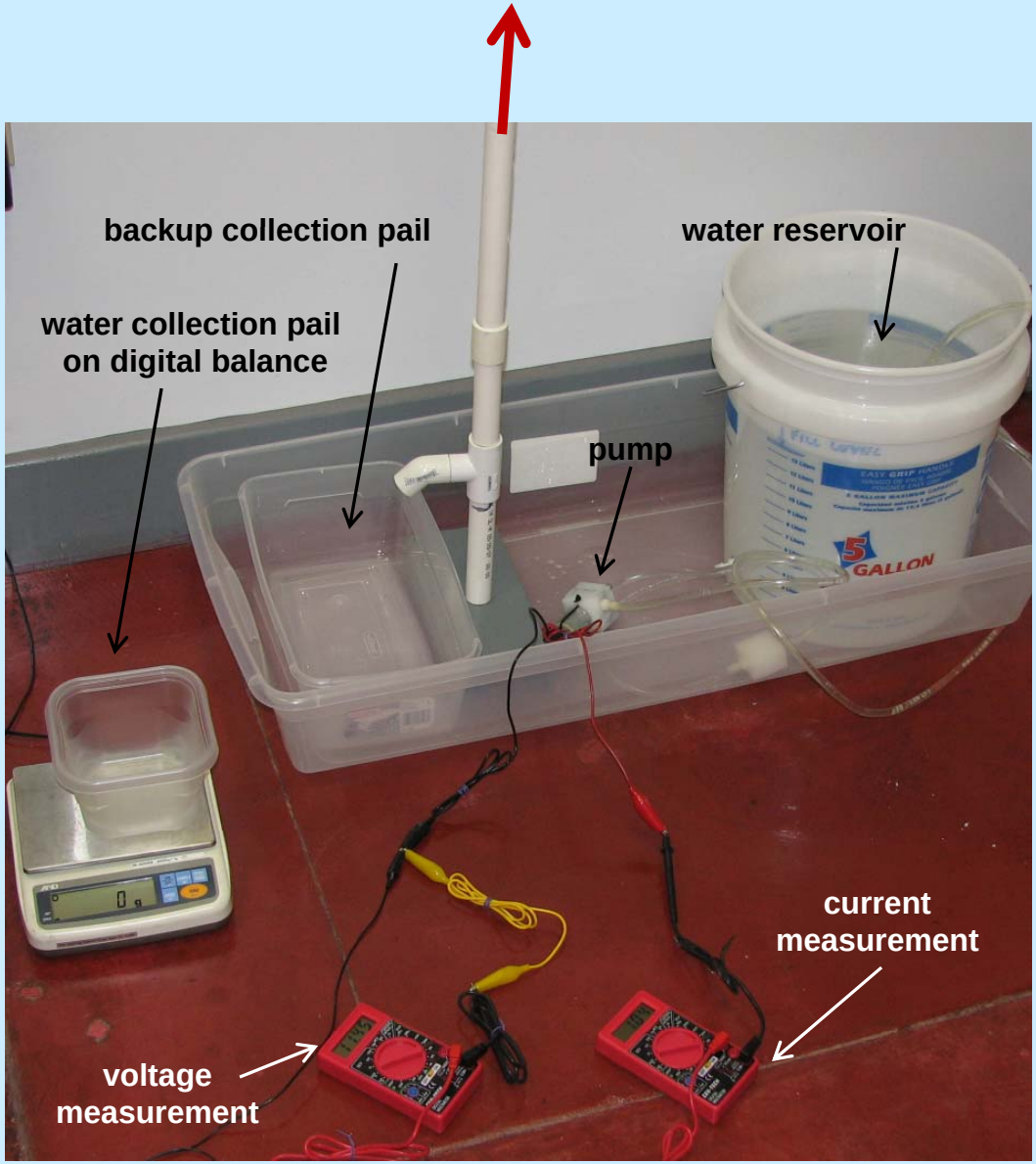
Pump Performance Testing



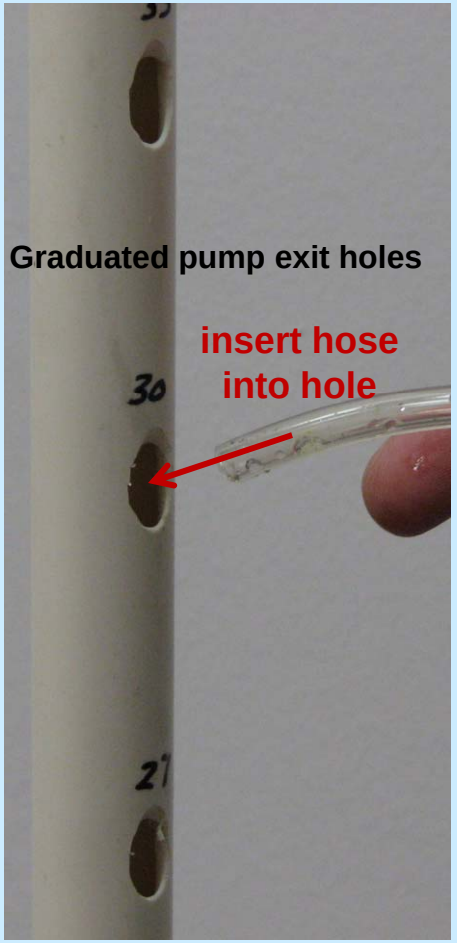


ME 199A

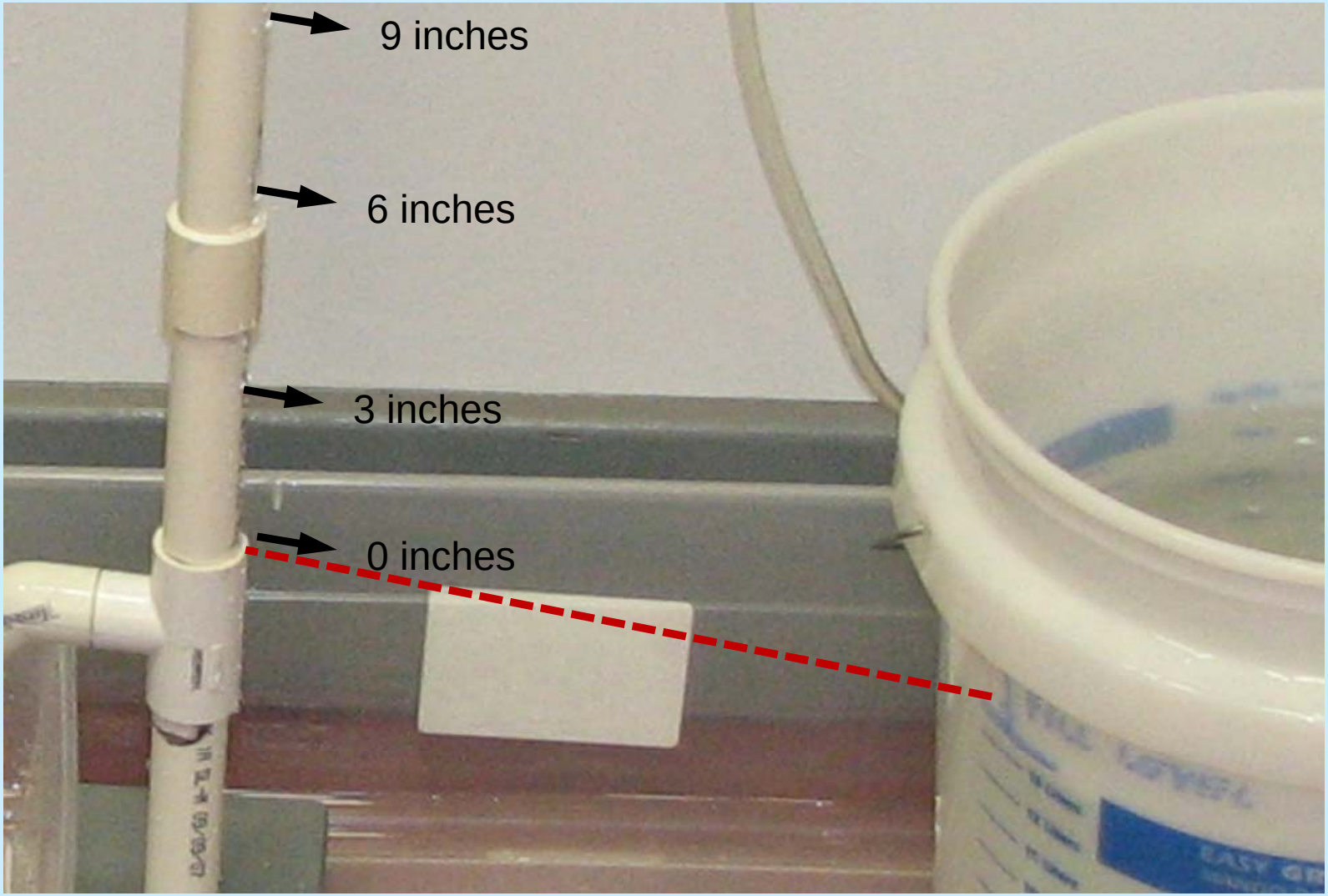
Experimental Setup



12 VDC power supply

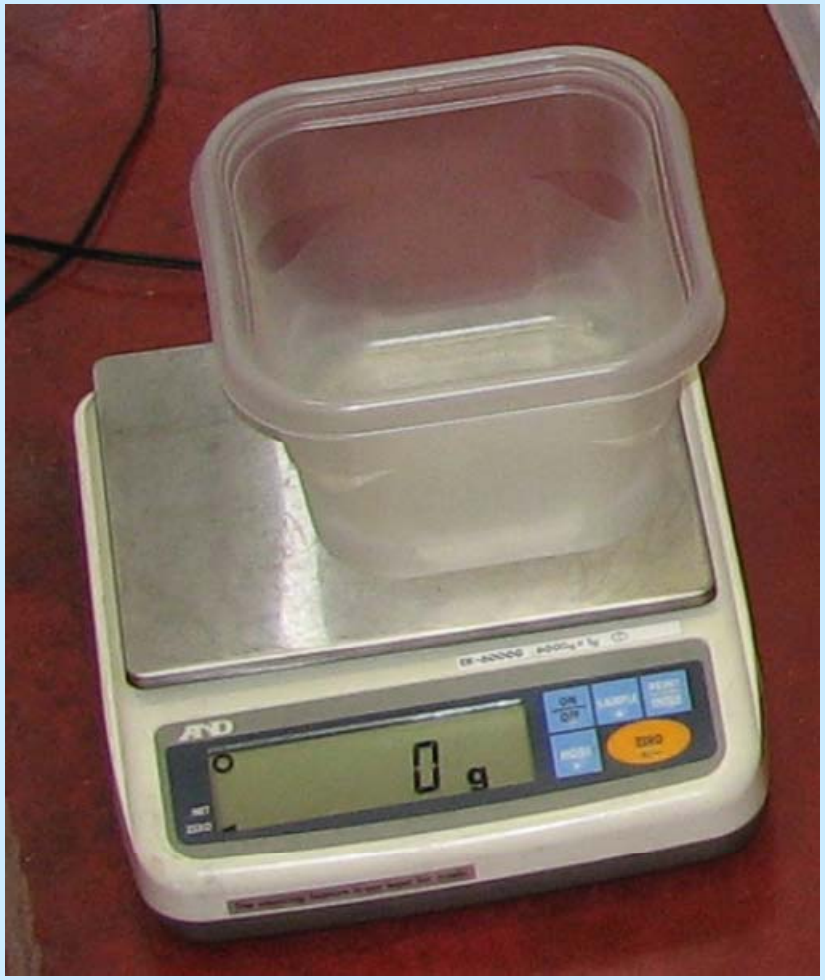


Fill Water Reservoir Bucket to the Zero Inch Mark (top of the PVC fitting above the outlet)



Zero the Digital Balance

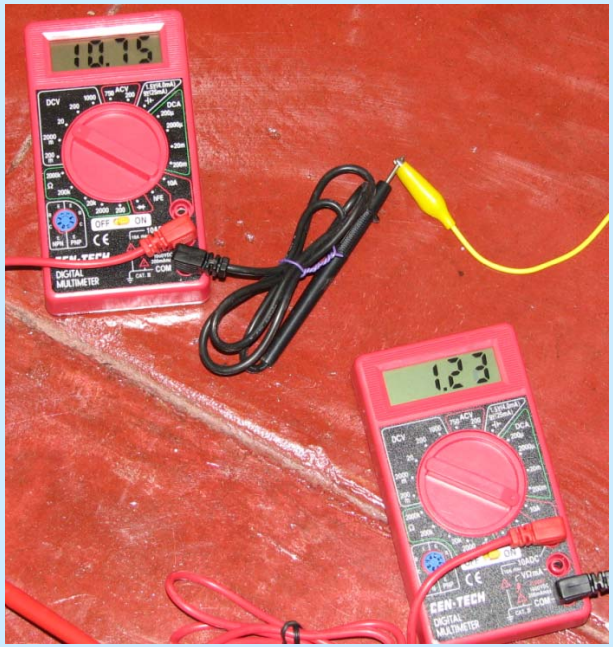
The displayed weight is the actual weight of the water



Collect a Data Point

Record the Data Point

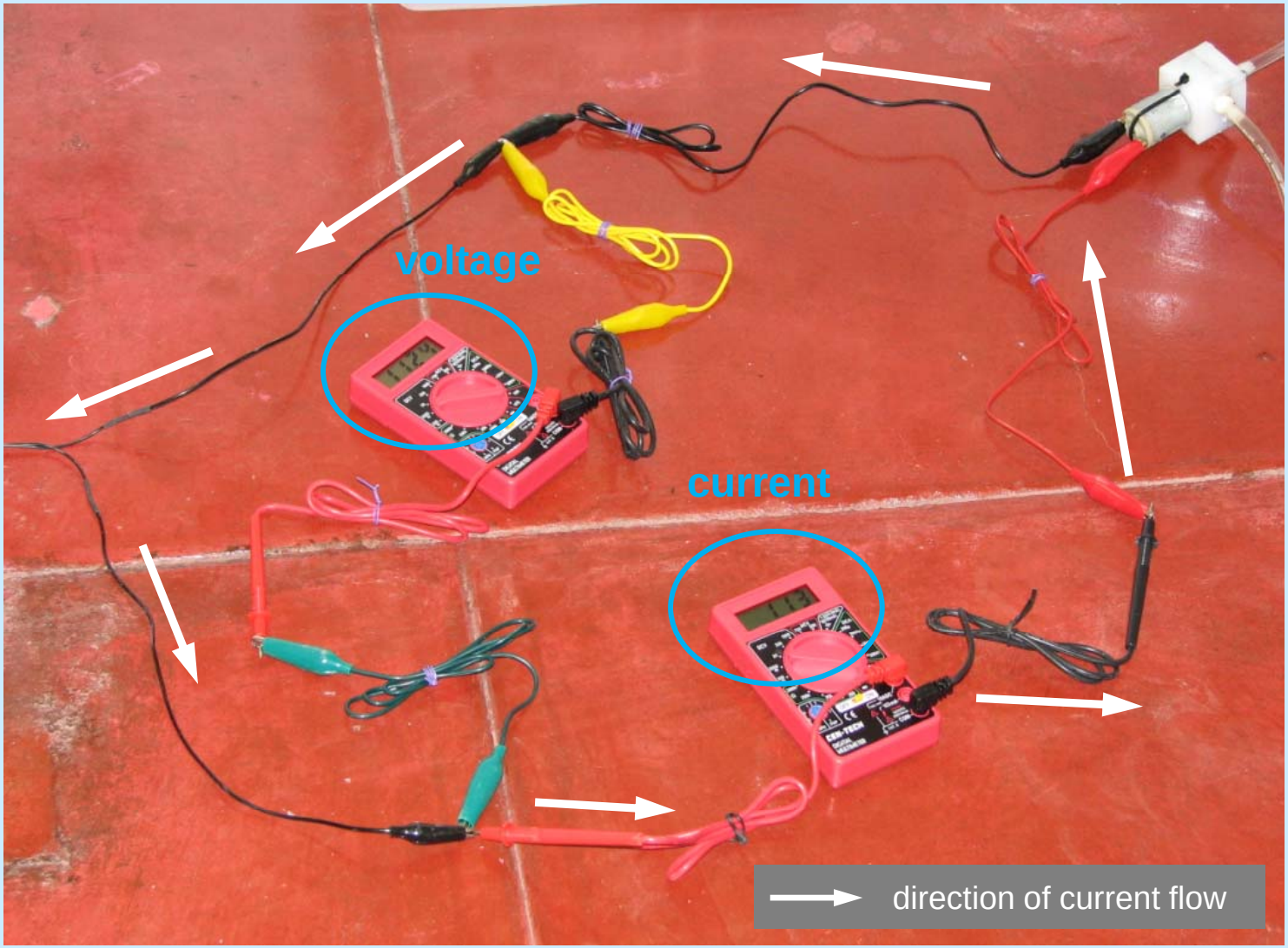
height above water in supply bucket (in)	I to pump (amps)	V across pump leads (volts)	mass collected in 20 seconds (g)	time (s)
6				20
12				20
18				20
24				20
30	1.23	10.75	175	20
36				20
42				20



Measurement of Power Used by Pump (P = VI)

- voltage measured ACROSS pump terminals

- current flows THROUGH multimeter



Guidelines / Housekeeping / Safety

• You should take one set of data with increasing heights (going up) and another set of data coming down.

•Try to take data for 8 to 10 different heights (you can record less than every six inches if your pump won't pump 72 inches).

•Keep water away from all electrical equipment except the pump, and do your best to keep the pump motor dry.

•Don't handle the wall adapter or other power supply with wet hands or wet feet (or when in contact with water).

• Wipe up any water that leaks onto the floor.

• Report any problems encountered to the help desk.