Lab 6: *RC* Time Constant

Challenge
Devise *two* ways to measure the product of resistance and capacitance (*RC*) for a DC circuit.

Available materials:

multimeter & probes	resistors	capacitors
Logger Pro software	voltage sensor	
circuit board, wires, batteries	your phone's camera	

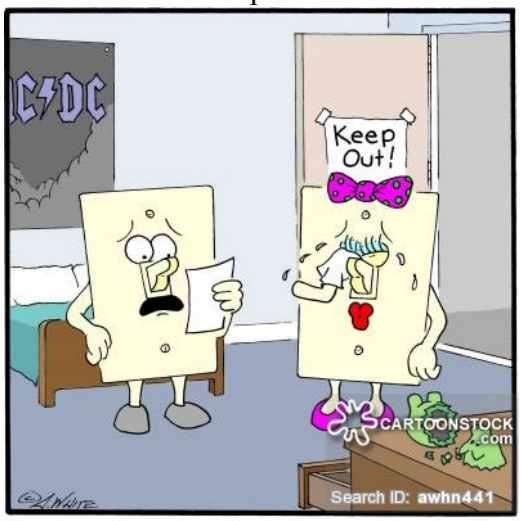
Technical details
Before attempting to measure *RC*, familiarize yourself with the Vernier equipment and *Logger Pro* software. For example, measure the resistance of a resistor by using both a multimeter and Ohm's Law.

Lab report considerations
Multiple trials should be pursued; use at least three different combinations of capacitors and resistors. Use the dataset to report both an average *error* on the time constant *RC* and its *uncertainty*. Your lab report must provide an example circuit diagram. A photo, sketch, or diagram of the lab setup should also be included.

Lab Etiquette
Once you are finished, please help by properly organizing the circuit boards and their components. Also, please put all the capacitors and resistors back into their proper drawers. Ensure you are doing this correctly by measuring their capacitances and resistances via a multimeter.

Teacher signatures
Please get your TA to sign off on your experimental plan, the pre-lab equipment practice, and the completion of the lab. These signatures will help to promote a successful experience.

A lady took her CD player into the repairman. "I am afraid you have a short circuit," he told her. She said "I don't care how much it costs, lengthen it."



"Dear Mom and Dad, I'm running away from home to join the circuits."