NW Propmasters

Northwest Propmasters is a club for anyone who wants to further their skills in SF/Fantasy propmaking and costuming, with emphasis is on the hardware aspects. Those with and without skills are invited to join, the only requirement is that you are willing to share your skills.

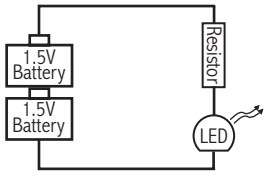
NW Propmasters started just before Norwescon 24 with a core group of a half dozen experienced propmakers and craftsmen with a mix of existing skills in electronics, casting, metalworking, woodworking, costuming, etc.

A website will be up shortly at **www.polyphoto.com/nwpropmasters/** with more information on workshops, tutorials, links, and more.

The Basics

Series:

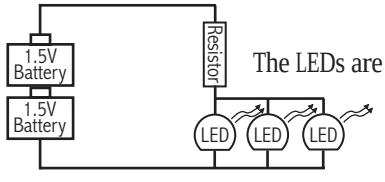
A series circuit is one in which the components are attached end-to-end or in-line. The current is the same all through a series circuit. Voltage adds in series. So two AA cells (1.5 Volt each) in series add up to 3V.



These components are in series with each other

Parallel:

A parallel circuit is one in which the components are attached across each other. The voltage is the same across all componentsthat are in parallel with each other. Current is divided up between parallel devices, unequally if the components are not identical.



The LEDs are in parallel with each other

It may help you to think of the electricity as water in a closed system. So Voltage is like water pressure, and Current is the flow of water.

Then you can think of a battery as a tiny pump and resistors are constrictions in the pipe that resist the flow. Please don't get too bound up in the analogy, after all if you cut a wire, electricity doesn't run all over the floor.

So, like water, if the LEDs in parallel are not identical then the current through each will not be the same. If you have only a few in parallel and they are from the same batch, the difference may be inconsequential. If you try and use different LEDs, especially different colors, you may find a large difference in brightness.