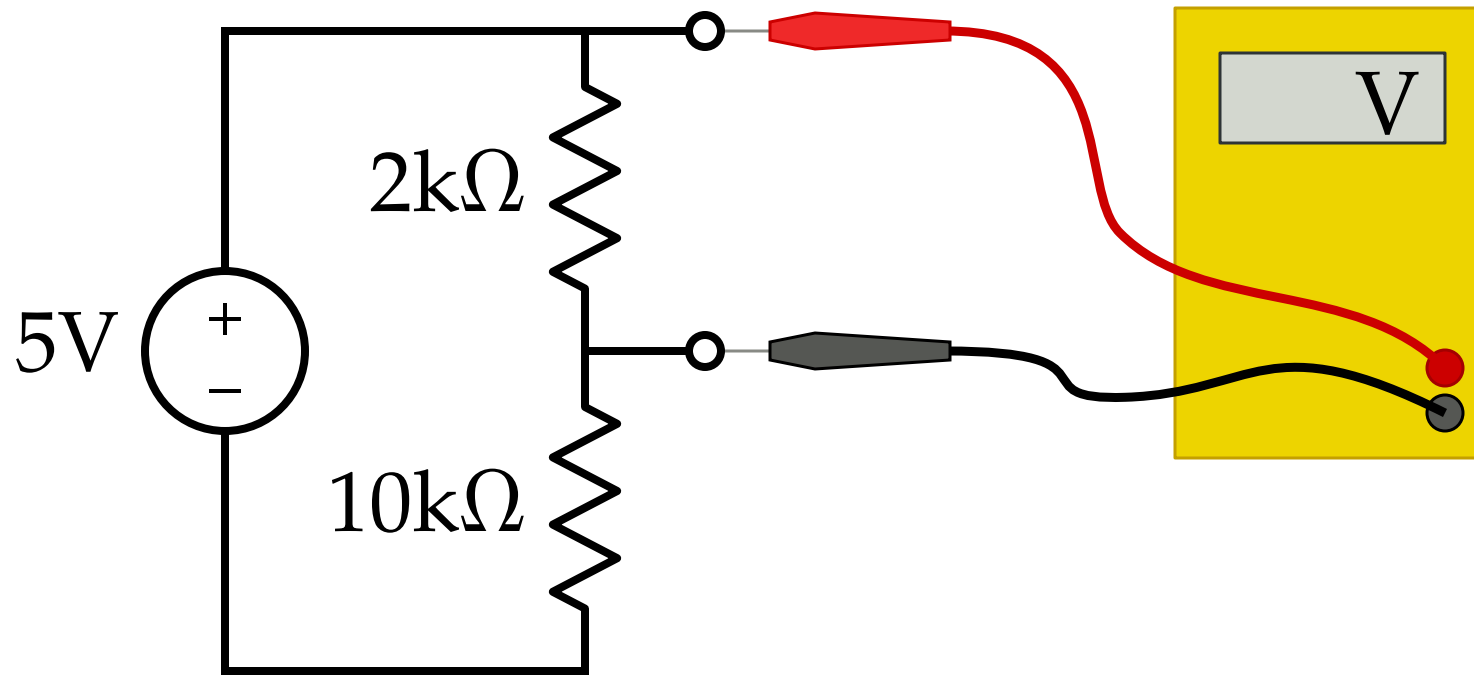


# Warmup

What voltage will you measure with your multimeter?



Respond at [pollev.com/stevenbell](https://pollev.com/stevenbell)

# EN 1: Engineering in the Kitchen

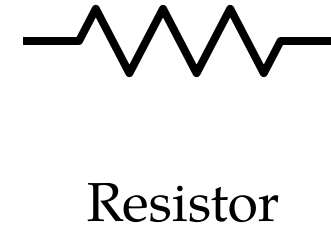
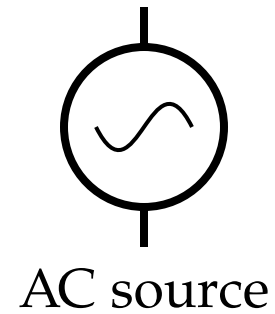
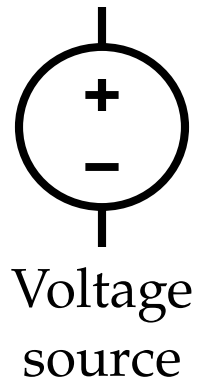
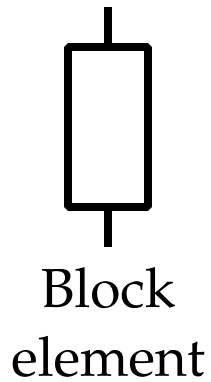
Steven Bell

21 September 2021

# Circuit schematics

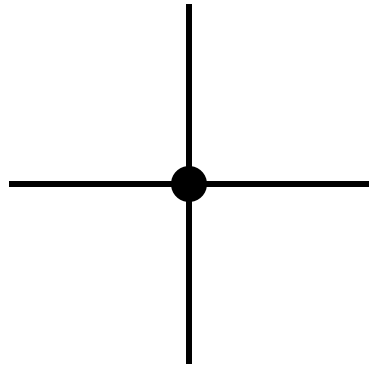
A schematic is an abstraction for describing a circuit. It shows *electrical* layout, not physical layout.

Some common elements:

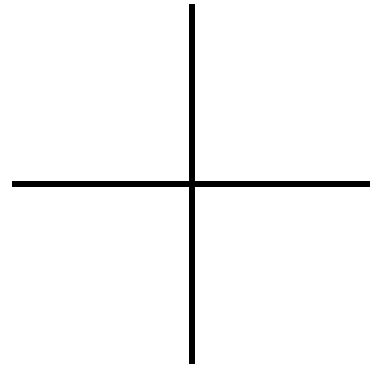


# Circuit schematics

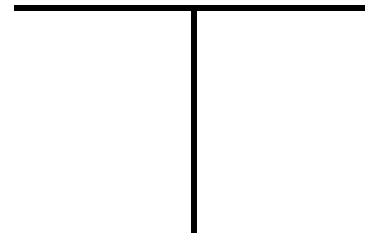
It's important to be clear about what's connected and what is not:



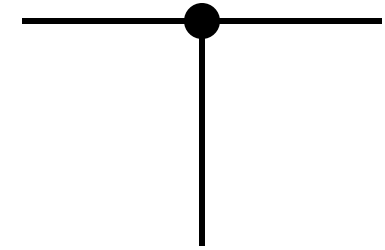
connected



not connected



connected



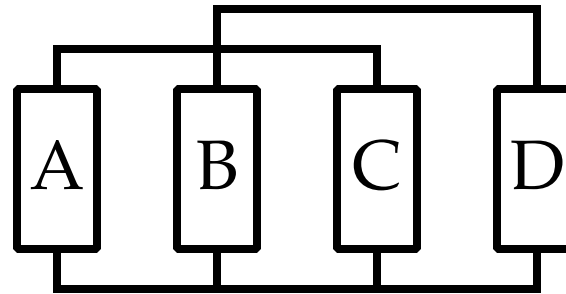
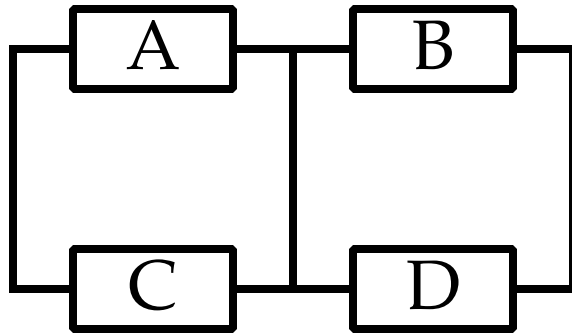
connected  
(dot is only for clarity)

A connected region is called a "node".

# Congruent schematics

There are many ways to draw the same circuit.

Don't be fooled just because they appear different - check what connects to what!



# Schematic example

# Disassembly tips

Work together

Use the right tool

Track all the screws

Pre-document the steps with your phone

# Getting started

- 1) Come measure the power consumption of your device
- 2) Pick up a tool kit
- 3) Start your disassembly!



# For Thursday

We'll be moving on to talk about microcontrollers

Shoot your photos + write iFixit pages this week, due 9/28