Welcome to Lab 1!

If you are setting up the Arduino IDE on the department computer, please start the IDE installation now!

(Step 1 of Lab)

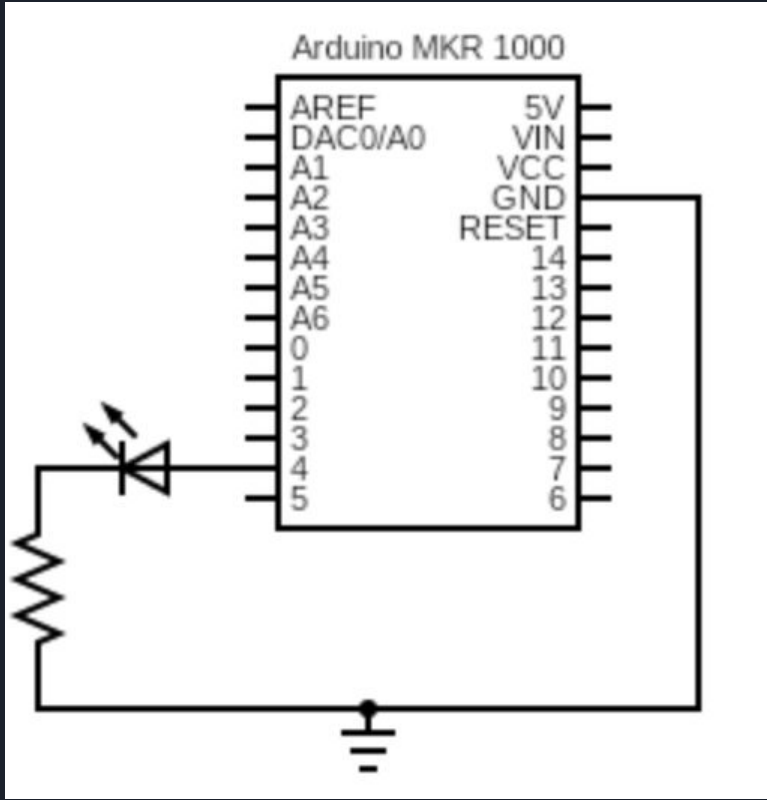
Meet the TAs!

Jason Ho, Senior

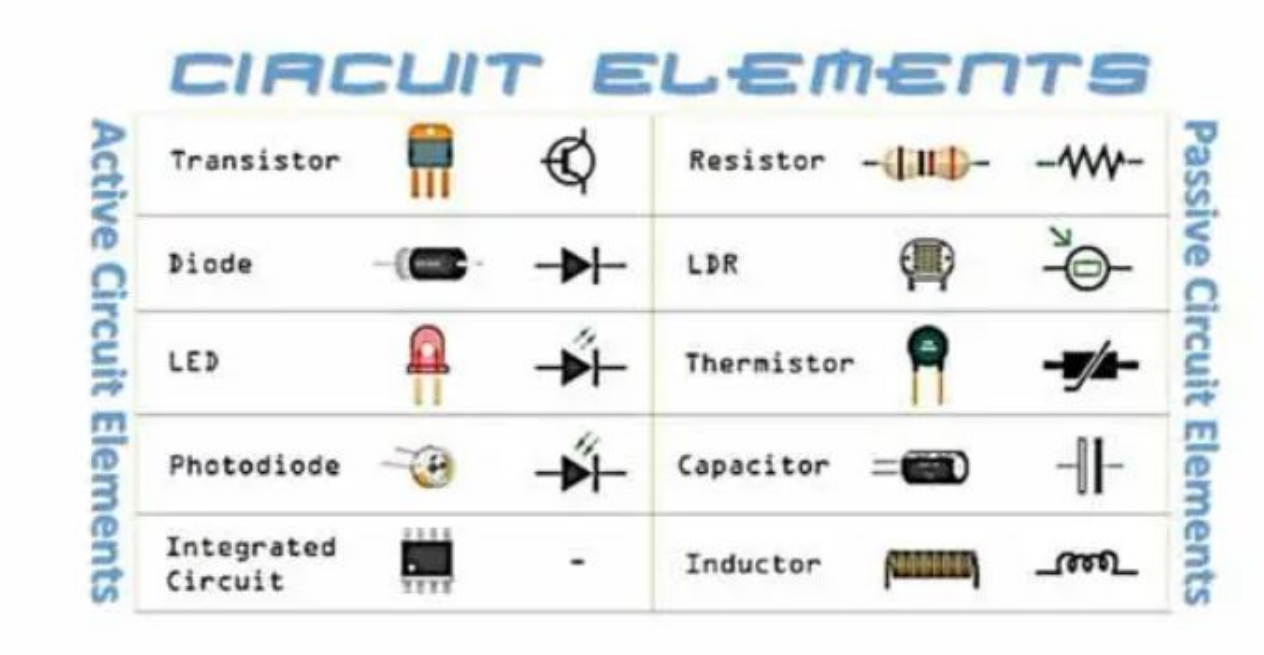
Stephen Sun, Senior

Arun Kavishwar, Junior

Quick Introduction to Circuits



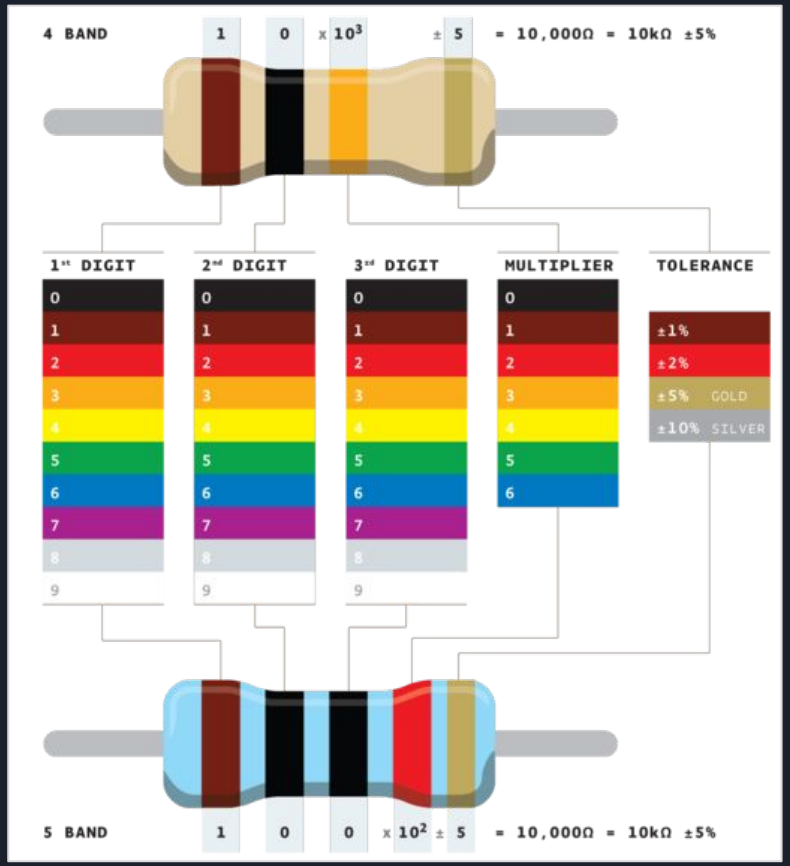
Basic Components of Circuit Schematics



Ground

Resistor Color Codes

- Refer to the lab handout link to resistor color codes!
- Don’t be alarmed when your resistors do not look exactly the same!

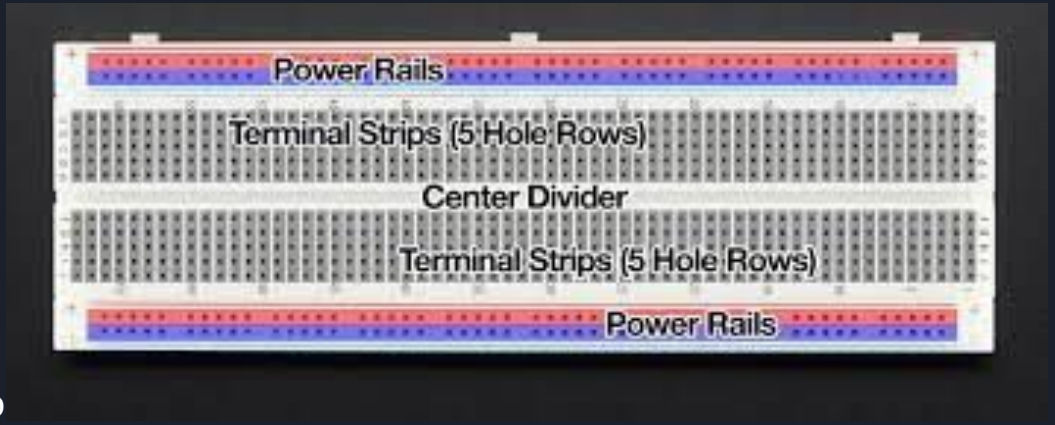


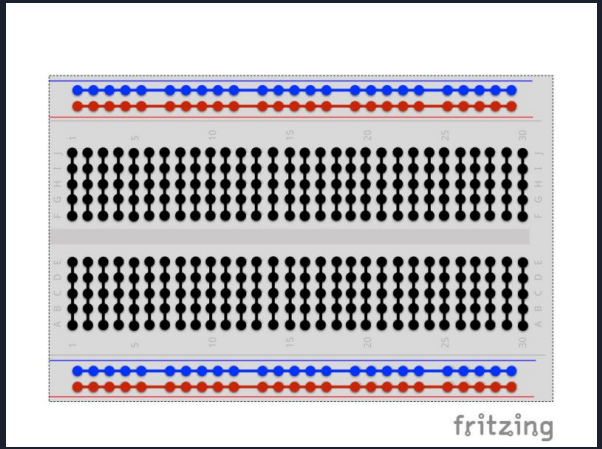
Breadboard Connections

- Red conventionally is connected to Vcc (on the board)
- Blue conventionally is connected to GND (on the board)

- Columns of 5 in the terminal strip are all connected together, BUT rows are not connected together

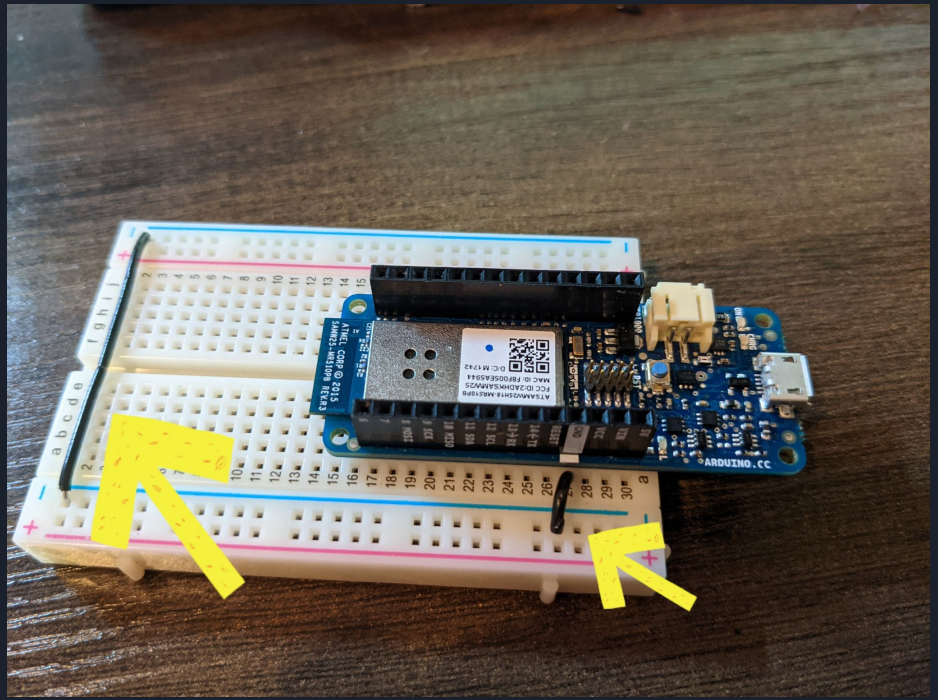
- You can imagine the current running from the Arduino pin, across the column its in, and over any wires you attach to send the current to other columns





How to Ground your Arduino

- Negative to negative
- Anything that's connected to the negative power rail is connected to ground



WARNINGS! WHAT NOT TO DO

- ONE WIRE == ONE HOLE ON BREADBOARD
- USE RESISTORS WHEN CONNECTING LEDs
  - LEDs without resistors will blow out!
- DON'T USE THE 5V PIN ON THE ARDUINO BOARD UNLESS THE CIRCUIT DIAGRAM SAYS TO
  - SOME PINS ARE ONLY 3.3V RATED AND WILL BREAK IF CONNECTED TO 5V
- USE THE CIRCUIT CHECKLIST BEFORE POWERING ANYTHING ON!!!!

Questions?