RGB led
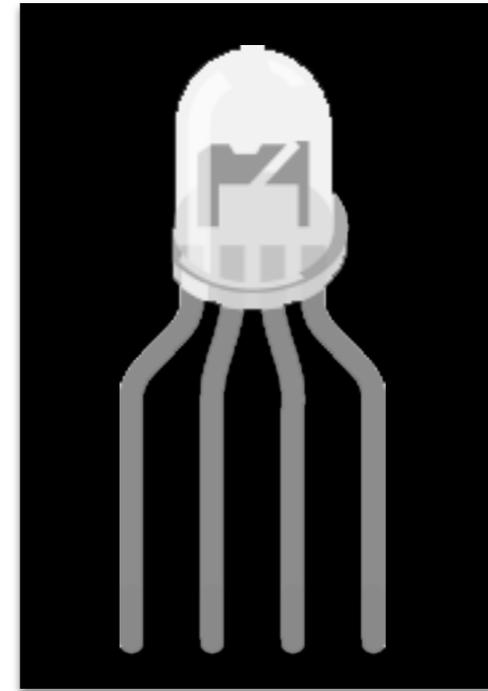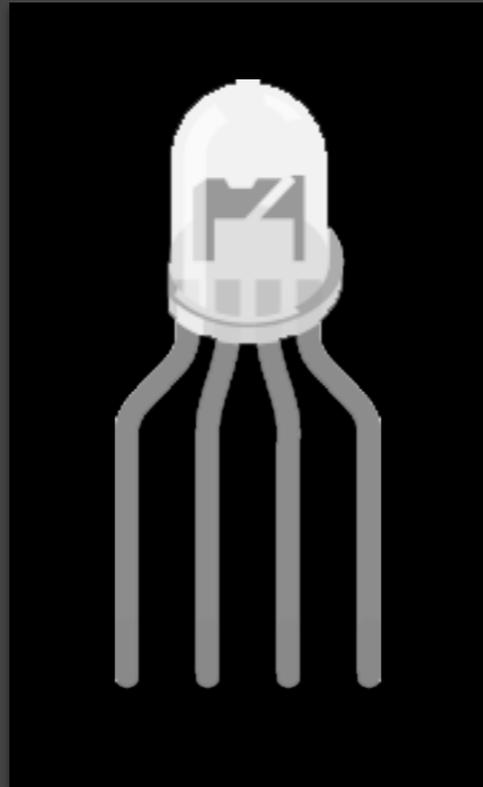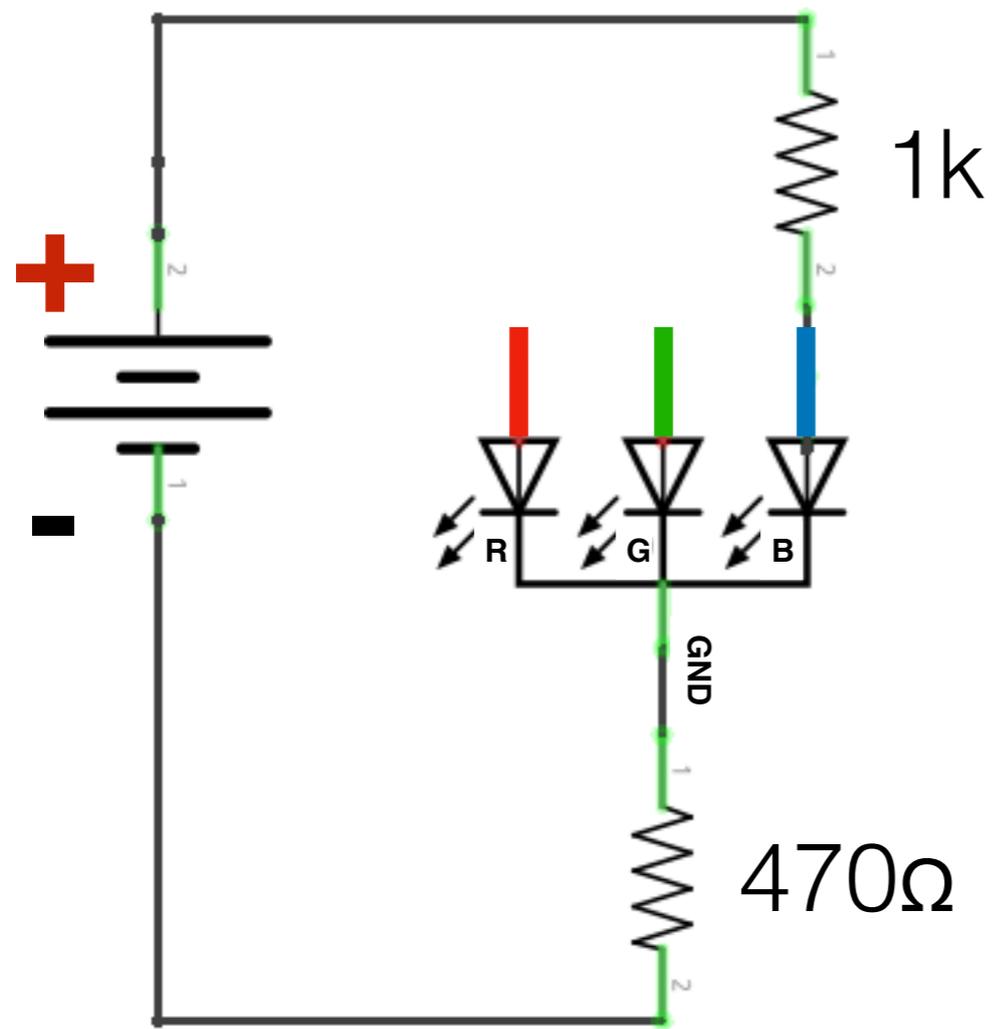
New part — RGB LED

- **RGB LEDs want to GLOW (millions of colours)**

- like single cousins — they want a small amount of power — and they want it going in the right direction

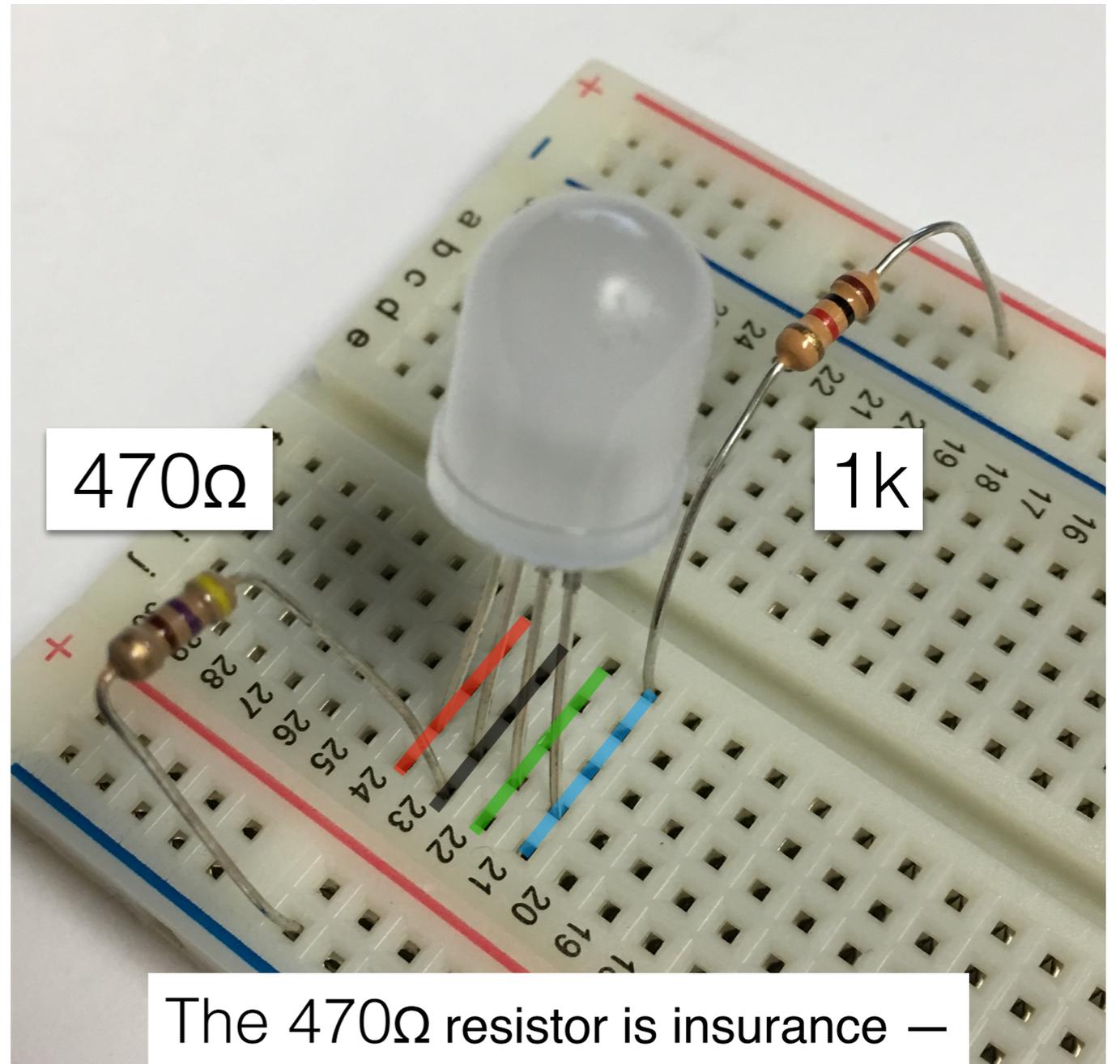- they want protection — from a current limiting resistor

building blocks RGB led

RED GND GREEN BLUE

GROUND (GND)
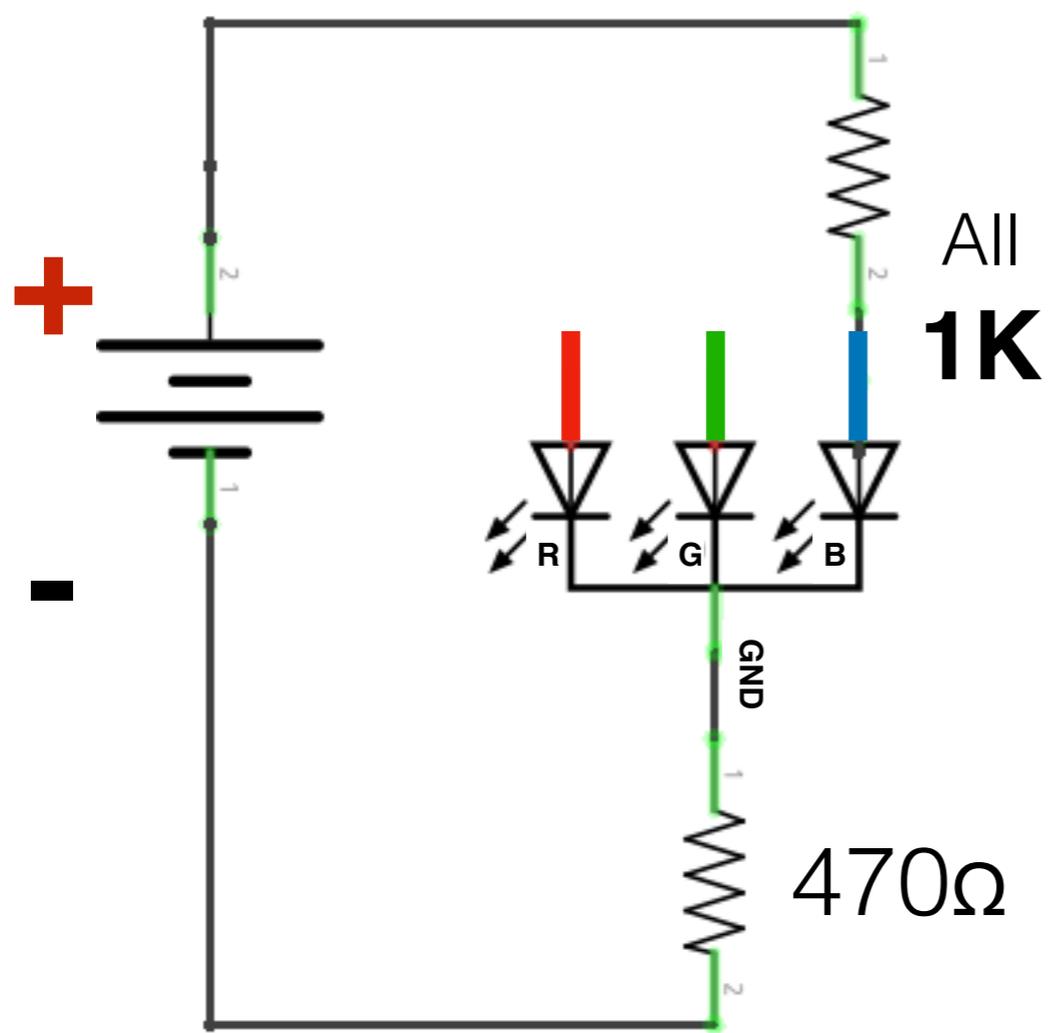# is longest!

New part — RGB LED

1k

470Ω

At first, put the top resistors in one at a time.

470Ω

1k

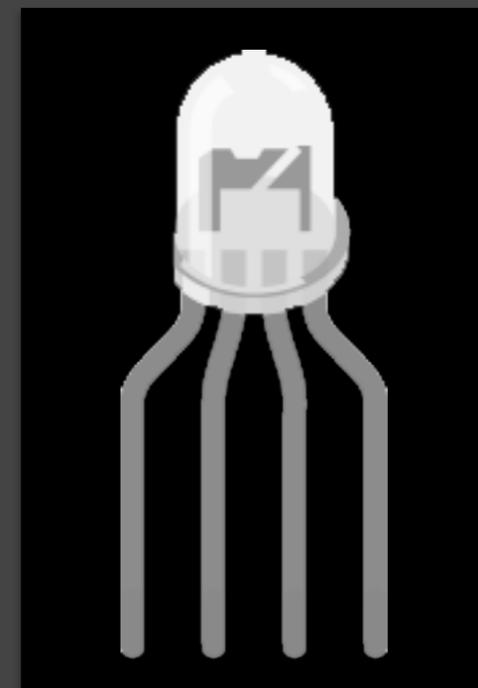The 470Ω resistor is insurance — use it in all of these experiments!

New part — RGB LED

All **1K**

470Ω
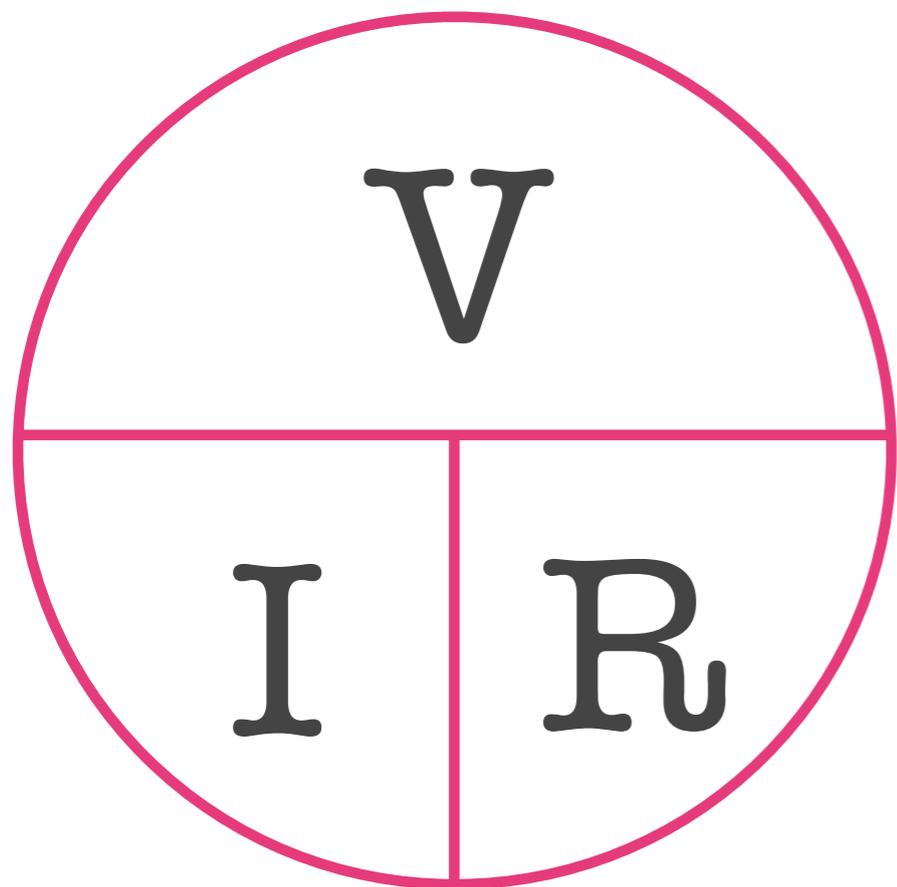
Try resistors of different value (>1k).

RED GROUND GREEN BLUE

GROUND (GND) is longest!

! Current Limiting Resistor !
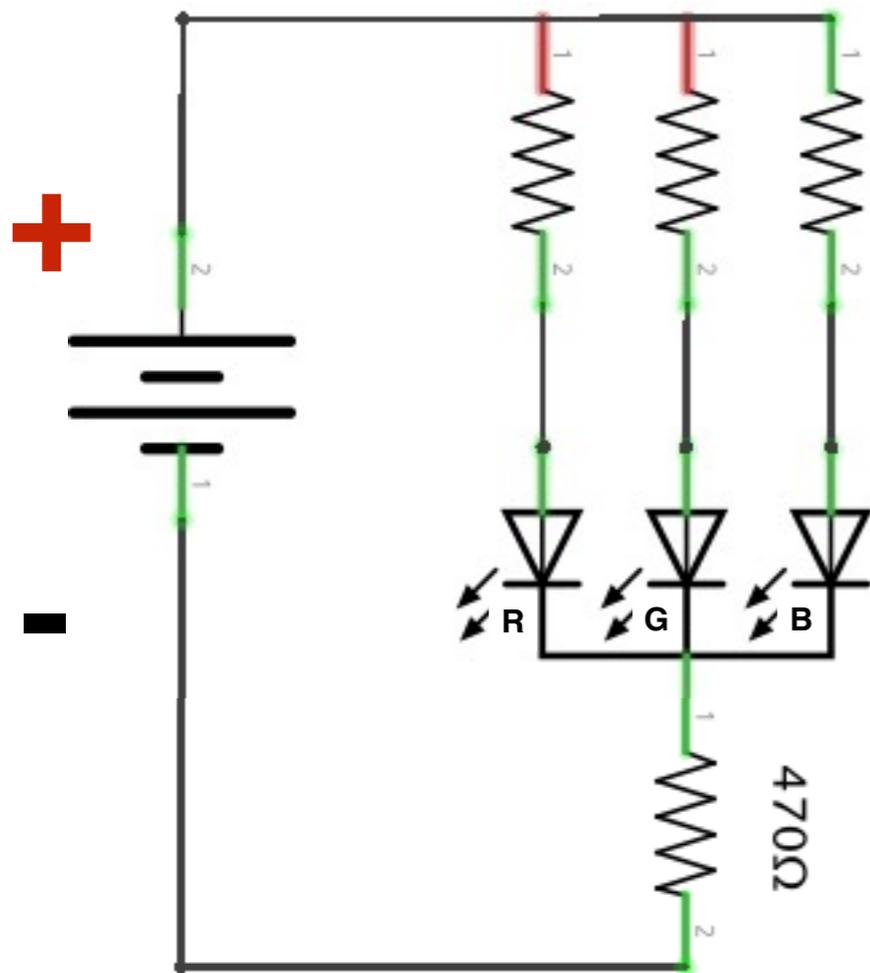
RECALL

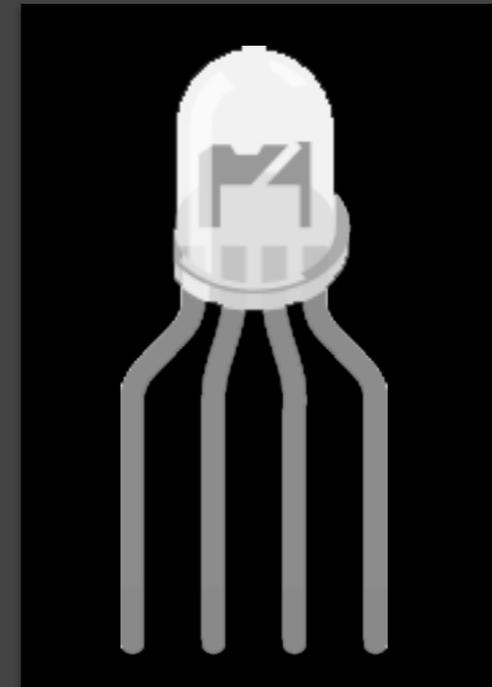**Resistors** protect other components

$$I = V / R$$

This tells us that CURRENT (I) gets *smaller* as R gets bigger.

Less current = dimmer LED.

Variations - RGB -

Change the size of these

RED GROUND GREEN BLUE

GROUND (GND) is longest!

Try resistors of different values 100Ω - 100KΩ

470Ω

R   G   B

+

-