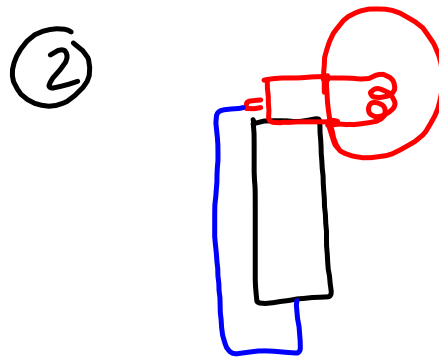
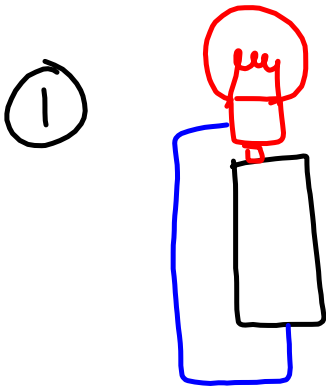


ELECTRIC CIRCUITS

- Determine two ways to make the bulb light.



- Open Circuit → no connected route for electrons to move

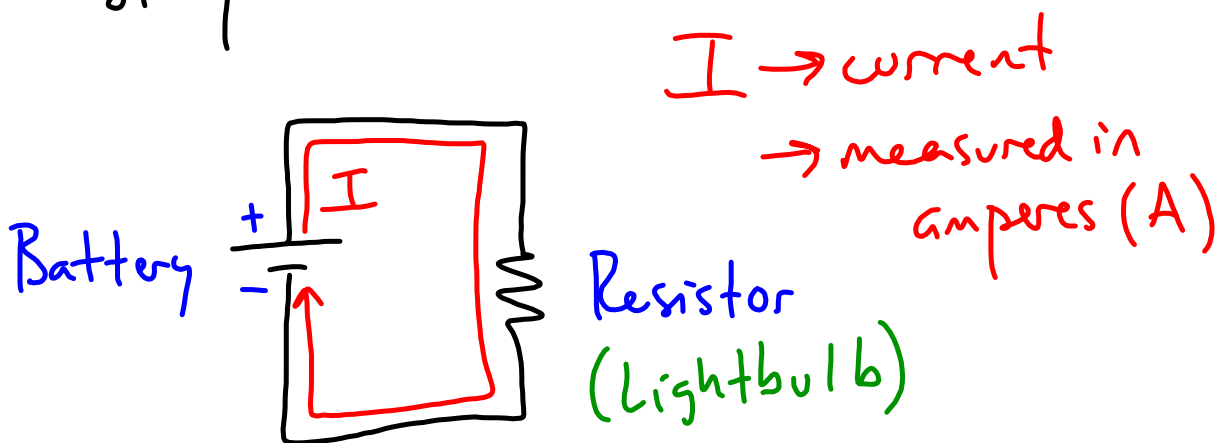
Lightbulb does NOT light

- Closed circuit → is connection such that electrons can move

Lightbulb WILL light

- Insulator → material where it is difficult to make electrons move
- Conductor → material in which electrons move freely (best example → metals)

- Simplest Circuit



$$I = \frac{\Delta q}{\Delta t} \Rightarrow \text{amount of charge moving}$$

Resistors \rightarrow restrict flow of electrons
 \rightarrow measured in ohms (Ω)

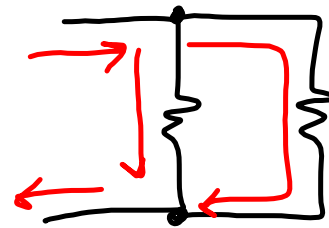
• Connection types:

- Series



one way for
current to flow

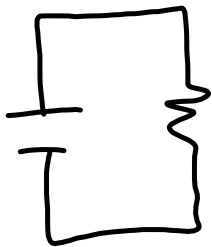
- Parallel



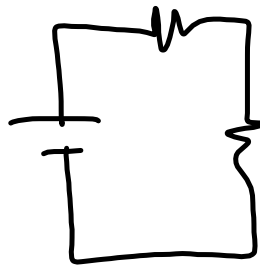
multiple ways for
current to flow

• Circuits to create:

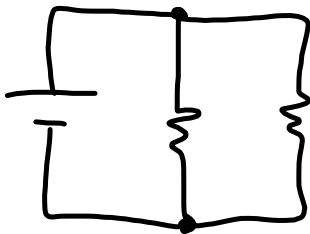
①



②



③



④

