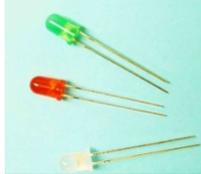
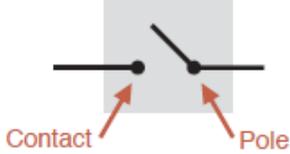
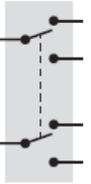
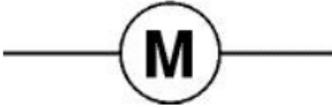
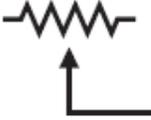
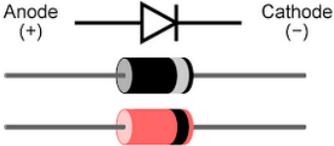
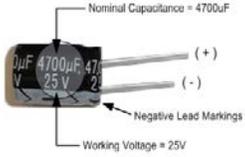
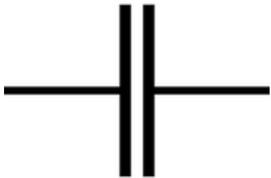


Electrical Components and Symbols

Component	Picture	Schematic Symbol	Description
Battery			An electric battery is a device consisting of one or more electrochemical cells that convert stored chemical energy into electrical energy. Each cell contains a positive terminal, or <i>cathode</i> , and a negative terminal, or <i>anode</i> . Electrolytes allow ions to move between the electrodes and terminals, which allows current to flow out of the battery to perform work.
Resistor			A resistor impedes the flow of electricity through a circuit. Resistors have a set value. Since voltage, current and resistance are related through Ohm's law, resistors are a good way to control voltage and current in a circuit.
LED			A light emitting diode (LED) is a semiconductor light source. When electricity passes through the LED, it emits light.
Single Pole Single Throw (SPST) Switch			A SPST switch is an on-off. It allows current to flow only when it is in the closed (on) position.
Double Pole Double Throw (DPDT) Switch			This switch can be wired up as a reversing switch for a motor. Some DPDT switches have a central off position. The switches on the PufferFish boards are momentary switches meaning a spring returns them to the center off position when you remove pressure to the switch.
Fuse			A fuse is a safety device which will 'blow' (melt) if the current flowing through it exceeds a specified value.

Electrical Components and Symbols

Component	Picture	Schematic Symbol	Description
Motor			A motor is a machine that converts electricity into a mechanical motion. A machine is a tool containing one or more parts that uses energy to perform an intended action.
Potentiometer			Potentiometers allow you to vary voltage and current by varying resistance.
Diode		 Anode (+) Cathode (-)	Current passing through a diode can only go in one direction, called the forward direction. Current trying to flow the reverse direction is blocked. They're like the one-way valve of electronics.
Capacitor			A capacitor is like a tiny rechargeable battery. Although they work in completely different ways, capacitors and batteries both store electrical energy . Inside the battery, chemical reactions produce electrons on one terminal and absorb electrons on the other terminal. A capacitor is much simpler than a battery, as it can't produce new electrons -- it only stores them. It's so small that it charges and discharges in a fraction of a second. Capacitors help reduce voltage spikes that can damage electronics by storing and releasing energy at the right time.
Inductor			An inductor , also called a coil or reactor, is a passive two-terminal electrical component which resists changes in electric current passing through it. It consists of a conductor such as a wire, usually wound into a coil. When a current flows through it, energy is stored temporarily in a magnetic field in the coil.