1 Here are some common circuit symbols

open switch	closed switch	lamp
cell	battery	voltmeter
resistor	fuse	ammeter
variable resistor	thermistor	light dependent resistor (LDR)

Diode

Capacitor

Inductor

Resistor

DC voltage source

AC voltage source

And gate

Nand gate

Or gate

Nor gate

Xor gate

Inverter (Not gate)
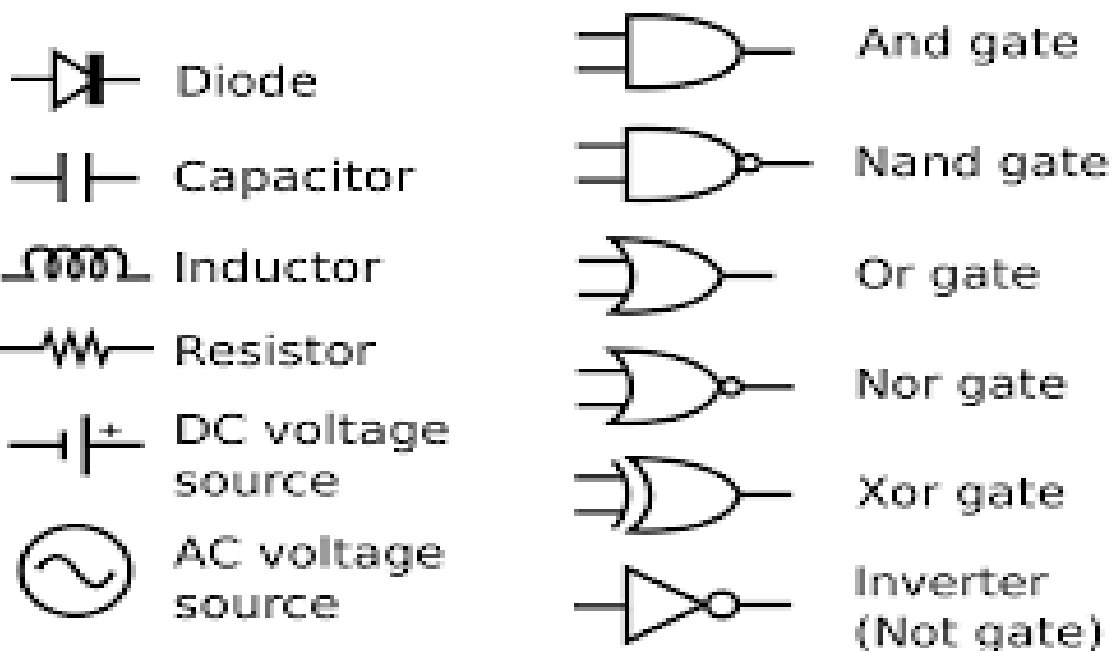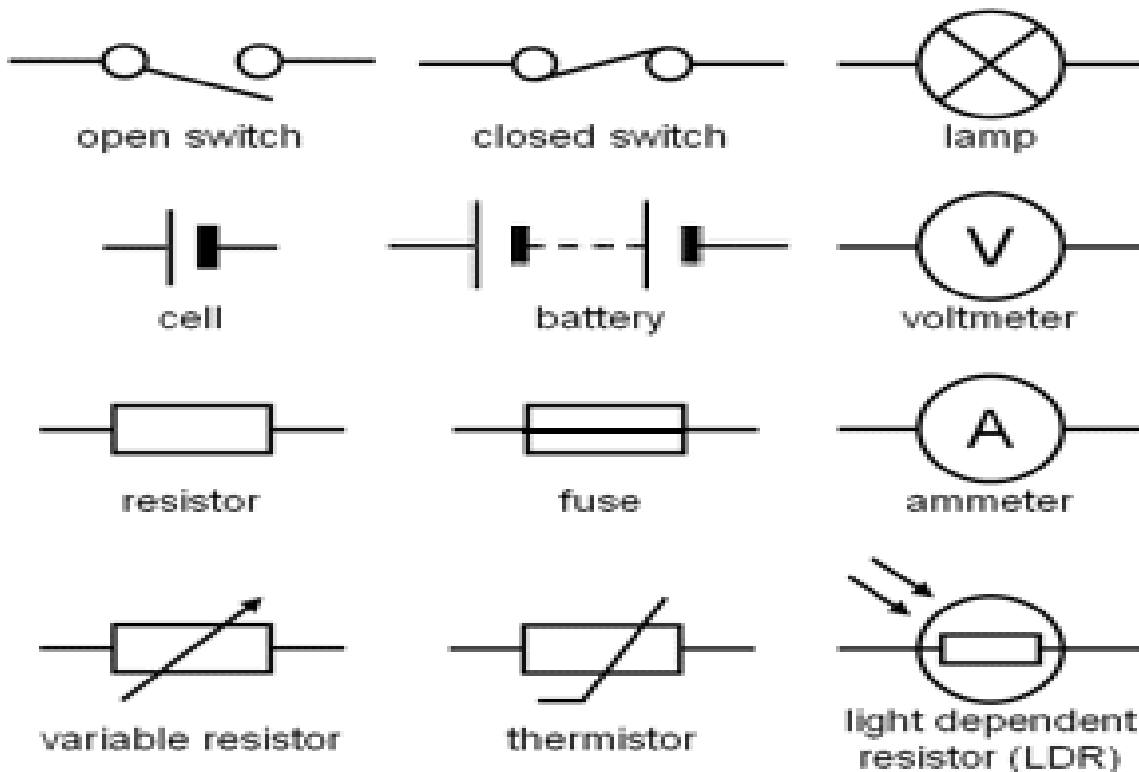
http://www.talkingelectronics.com/CctSymbols/Circuit_Symbols.html

Arduino

2 Here are some things we can use to make a circuit.

BreadBoard
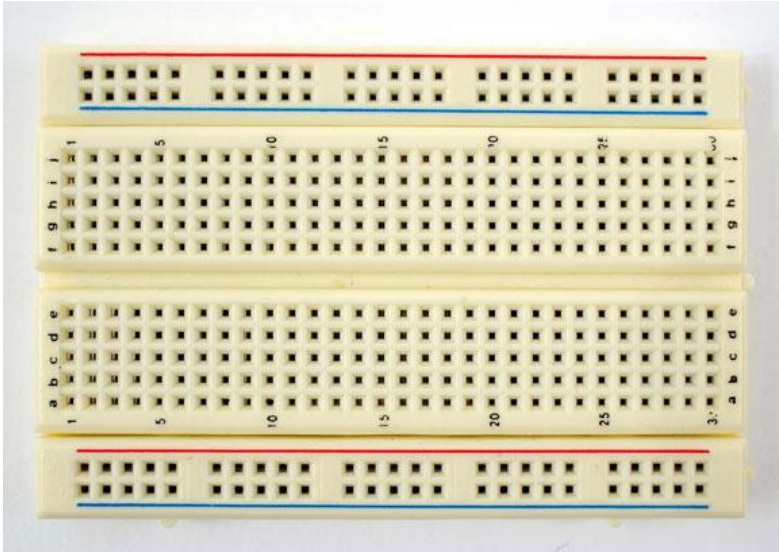
A breadboard is a re-useable platform for mounting components. Consisting of a number of small holes that are actually connected underneath in various lines, they create the circuit connections when you push components into them, thereby avoiding the need for soldering and allowing you to experiment with ease

Jumperwires

For making connections within your breadboard (to a different physical area) and to the Arduino itself, jumper wires are used. These are just bits of wire with fixed ends that can be stuck into the Arduino and plugs on the breadboard.

Resistors

Resistors limit the flow of current to other components. The main reason for doing this is to protect other components from damage.

LED's

Light Emitting Diodes emit light when you supply them with power! Just make sure you use a resistor with them in your circuit.LEDs have both a positive and a negative leg. The negative must be connected to the ground (GND), the shorter of the two legs, or by a flat indentation in the head of the LED.

3 Lets make our first circuit with some of these components

1.5v | 3v | 3v with resistor | circuit diagram | connected the wrong way