




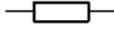


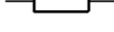


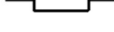
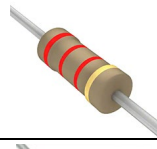

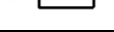
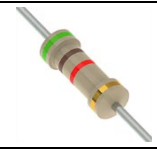

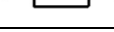
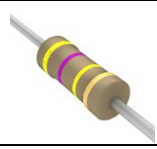
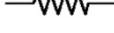

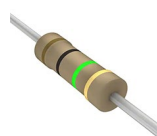
104-210 Electronics Fundamentals 2 Kit Parts List

Total number of different parts: 36


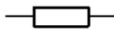
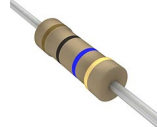





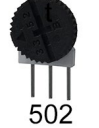











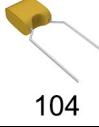








Total number of pieces: 123

Notes:

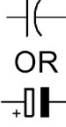
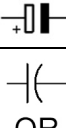

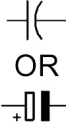
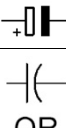

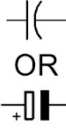
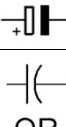

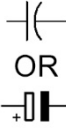


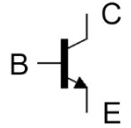

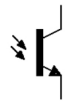

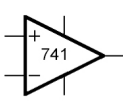
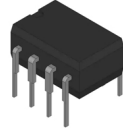
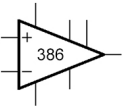
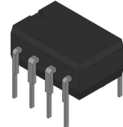
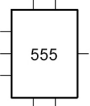
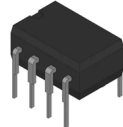
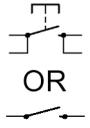


- Some parts look identical (except for the color code or part number). Be sure to put each part back in its place.
- Many parts come on strips of tape. Gently peel off any tape and wipe off adhesive before using each part.
- Bend leads in the middle (not against the body of the component). This helps prevent the leads from breaking.

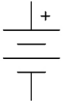



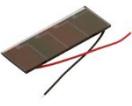









LEDs			
Symbol	Kit QTY	Image	Description
	10		5mm Clear Red LED, Forward Voltage (Vf) = 2V, Current = 20mA
Resistors			
All resistor tolerances are $\pm 5\%$ (gold stripe)			
 OR 	10		10 Ω ¼W 5% Carbon Film Resistor Brown, Black, Black
 OR 	10		470 Ω ¼W 5% Carbon Film Resistor Yellow, Violet, Brown
 OR 	10		2.2K Ω ¼W 5% Carbon Film Resistor Red, Red, Red
 OR 	10		5.1K Ω ¼W 5% Carbon Film Resistor Green, Brown, Red
 OR 	10		470K Ω ¼W 5% Carbon Film Resistor Yellow, Violet, Yellow
 OR 	10		1M Ω ¼W 5% Carbon Film Resistor Brown, Black, Green

104-210 Electronics Fundamentals 2 Kit Parts List

 OR 	10		10MΩ ¼W 5% Carbon Film Resistor Brown, Black, Blue
 OR 	1	 102	1kΩ (code 102) Trimmer Potentiometer (Style may vary)
 OR 	1	 502	5KΩ (code 502) Trimmer Potentiometer (Style may vary)
 OR 	1	 504	500KΩ (code 504) Trimmer Potentiometer (Style may vary)
 OR 	1		Thermistor - Negative Temperature Coefficient (NTC) 10KΩ
Capacitors (Package color may vary)			
	2	 683	0.068 µF 50V Radial Ceramic Capacitor
	2	 154	0.15 µF 50V Radial Ceramic Capacitor
	2	 104	0.1µF 50V Radial Ceramic Capacitor
	2	 224	0.22 µF 50V Radial Ceramic Capacitor
 OR 	2		0.1 µF 50V Radial Electrolytic Capacitor
 OR 	2		1 µF 50V Radial Electrolytic Capacitor

**104-210 Electronics Fundamentals 2 Kit
Parts List**

 OR 	2		47 µF 50V Radial Electrolytic Capacitor
 OR 	2		100 µF 35V Radial Electrolytic Capacitor
 OR 	2		220 µF 35V Radial Electrolytic Capacitor
 OR 	2		1000 µF 25V Radial Electrolytic Capacitor
Transistors and Integrated Circuits			
	2	 2N3904	2N3904 Transistor NPN 40V .2A
	1		NPN Phototransistor, Wavelength sensitivity: 450 to 1080nm (Visible light is considered 400 to 700nm) Note: Be careful, this looks just like an LED
	2		741 Operational Amplifier (Op-Amp) Integrated Circuit (IC)
	2		386 Operational Amplifier (Op-Amp) Integrated Circuit (IC)
	2		555 Timer Integrated Circuit (IC)
Switches			
 OR 	2		Tact Switch 12*12mm Through Hole SPST-NO

Power Supplies and Battery Connectors			
	1		9V Alkaline Battery (Brand may vary)
 OR 	1		Solar Cell 1.5V
Prototyping Supplies			
	1		830 Point Solderless Plug-in Breadboard
	1		Jumper Wires Male to Male 6" 28 AWG 20PCS
Speakers and Microphones			
	1		Electret Condenser Microphone 3V ~ 10V
	1		Stereo Earbuds
	1		Stereo Jack Connector 3.5mm
Safety			
	1		Safety Glasses, Use With or Without prescription Eyewear