

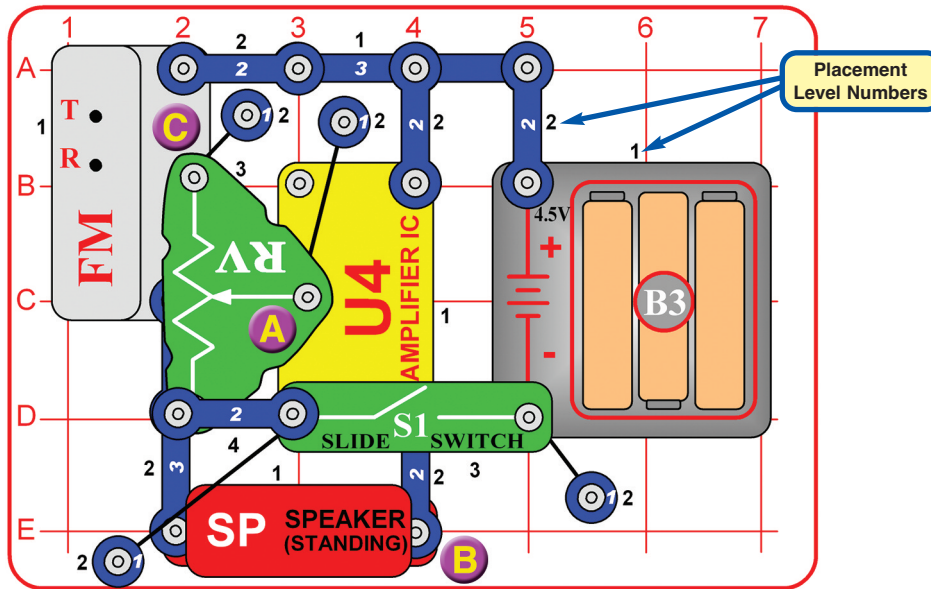
FM Radio

Model SCP-12

WARNING: Always check your wiring before turning on a circuit. Never leave a circuit unattended while the batteries are installed. Never connect additional batteries or any other power sources to your circuits.



WARNING: SHOCK HAZARD -
Never connect Snap Circuits® to the electrical outlets in your home in any way!



Project #1

FM Radio

Snap Circuits® uses electronic blocks that snap onto a clear plastic base grid to build different circuits. These blocks have different colors and numbers on them so that you can easily identify them. Build the circuit shown by placing all the parts with a black 1 next to them on the clear plastic base grid first. Then, assemble parts marked with a 2, then parts marked with a 3, and finally, parts marked with a 4. Note that there is a 3-snap wire between the FM module (FM) and the speaker (SP), partially hidden. Install three (3) "AA" batteries (not included) into the battery holder (B3).

Turn on the slide switch (S1) and press the R button on the FM module (FM). Now press the T button and the FM module scans for a radio station. When a station is found, it locks on to it and you hear it on the speaker (SP). Adjust the volume using the adjustable resistor (RV). The resistor controls the amount of signal into the power amplifier (U4). Press the T button again for the next radio station. The module will scan up to 108MHz, the end of the FM band, and stop. You must then press the R button to reset at 88MHz again.

Project #2 Power Amplifier

Modify the circuit shown by removing the 2-snap wire and the single snap that are connected to the FM module (FM), note that the single snap is beneath the adjustable resistor (RV).

Position the adjustable resistor (RV) at the top and turn on the slide switch. You should be able to touch point A with your finger and hear static. Listen closely to the speaker (SP) or wet your finger if you don't hear any sound. High frequency clicks, static or even an AM radio station should be coming from speaker indicating that the amplifier is powered on and ready to amplify signals.

The power amplifier may oscillate on its own. Do not worry, this is normal with high-gain, high-powered amplifiers.

Project #3 Electronic Kazoo

Use the circuit from Project #2. When you place one finger on point A and a finger from your other hand on the point B, what happens? If the amplifier starts to oscillate, it is due to the fact that you just provided a feedback path to make the amplifier into an oscillator. You may even be able to change the pitch of the oscillation by pressing harder on the snaps.

This is the principle used to make an electronic kazoo. If you practice and learn the amount of pressure required to make each note, you may even be able to play a few songs.

Project #4 Trombone

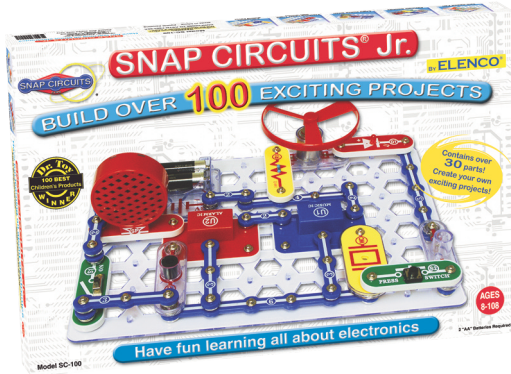
Use the circuit from Project #3.

Turn on the slide switch (S1) and place one finger on point C and a finger from your other hand on point B. The trombone should start playing due to the fact that you just provided a feedback path to make the amplifier into an oscillator. To change the pitch of the sound, simply slide the adjustable resistor (RV) control back and forth. By moving the slider, you will be able to play a song much like a trombone player makes music. The RV control is the same as a trombone slider bar. The circuit may be silent at some positions of the resistor control.

If you have any problems, contact Elenco®

OTHER SNAP CIRCUITS® PRODUCTS!

Contact Elenco® to find out where you can purchase these products.



Snap Circuits® Jr. Model SC-100

Build over 100 projects, contains over 30 parts.



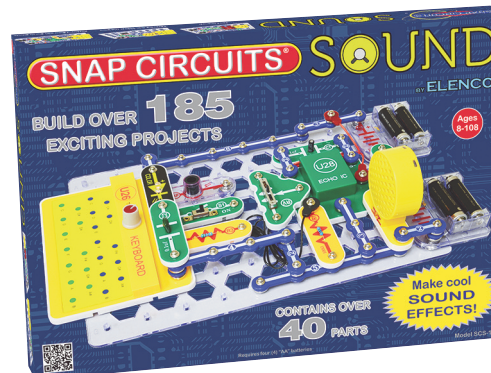
Snap Circuits® Light Model SCL-175

Build over 175 projects, contains over 55 parts.



Snap Circuits® Green Model SCG-125

Build over 125 projects, contains over 40 parts.



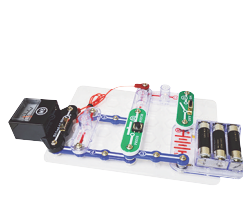
Snap Circuits® Sound Model SCS-185

Build over 185 projects, contains over 40 parts.



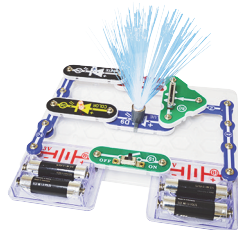
Flying Saucer Plus

Model SCP-09



Basic Electricity

Model SCP-10



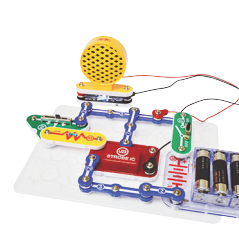
LED Fun

Model SCP-11



Motion Detector

Model SCP-13



Strobe Light & Sound

Model SCP-14

PARTS LIST

Qty.	ID	Name	Part #
□ 1		Base grid	6SCBGMF
□ 4	1	1-snap wire	6SC01
□ 5	2	2-snap wire	6SC02
□ 2	3	3-snap wire	6SC03
□ 1	B3	Battery holder	6SCB3
□ 1	FM	FM module	6SCFM
□ 1	RV	Adjustable resistor	6SCRV
□ 1	S1	Slide switch	6SCS1
□ 1	SP	Speaker	6SCSP
□ 1	U4	Power amp IC	6SCU4

Important: If any parts are missing or damaged, **DO NOT RETURN TO RETAILER.** Call toll-free (800) 533-2441 or e-mail us at: help@elenco.com.
Customer Service • 150 Carpenter Ave. • Wheeling, IL 60090 U.S.A.

You may order additional / replacement parts at our website: www.snapcircuits.net

BATTERIES:

- Use only 1.5V AA type, alkaline batteries (not included).
- Insert batteries with correct polarity.
- Non-rechargeable batteries should not be recharged. Rechargeable batteries should only be charged under adult supervision, and should not be recharged while in the product.
- Do not mix alkaline, standard (carbon-zinc), or rechargeable (nickel-cadmium) batteries.
- Do not mix old and new batteries.
- Remove batteries when they are used up.
- Do not short circuit the battery terminals.
- Never throw batteries in a fire or attempt to open its outer casing.
- Batteries are harmful if swallowed, so keep away from small children.