

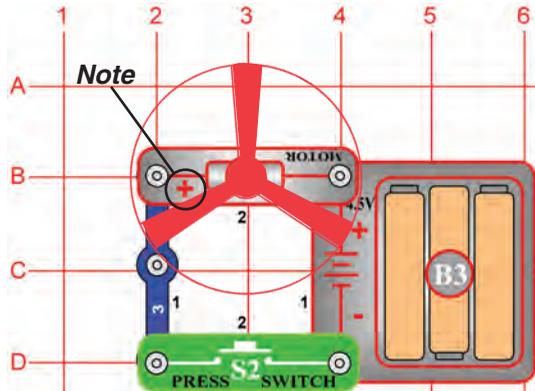
Flying Saucer

Model SCP-06

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!



WARNING: Moving parts. Do not touch the fan or motor during operation.



WARNING: Do not lean over the motor.

Project #1 Flying Saucer

Snap Circuits uses electronic blocks that snap onto a 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 base grid first. Then, assemble parts marked with a 2. Install three (3) "AA" batteries (not included) into the battery holder (B3). Place the fan on the motor (M1).

When you press the press switch (S2), the motor will slowly increase in speed. When the motor has reached maximum rotation, release the press switch. The fan should rise and float through the air like a flying saucer. Be careful not to look directly down on the fan while it is spinning.

The air is being blown down through the blade and the motor rotation locks the fan on the shaft. When the motor is turned off, the blade unlocks from the shaft and is free to act as a propeller and fly through the air. If the speed of rotation is too slow, the fan will remain on the motor shaft because it does not have enough lift to propel it. The motor will spin faster when the batteries are new.

Project #2 Fan

Rebuild the circuit from project #1, but reverse the polarity on the motor so the positive (+) on the motor goes to the positive (+) on the battery holder (B3). Place the fan on the motor and press the press switch (S2). Current flows from the batteries through the motor (M1), making it spin the fan. The fan blows air up and away from the motor, just like an electric fan in your home. The fan will not fly off.

In this project, you changed electrical power into mechanical power. DC motors are used in all of the battery powered equipment requiring rotary motion, such as a cordless drill, electric toothbrush, and toy trains that run on batteries just to name a few. An electric motor is much easier to control than gas or diesel engines.

Project #3 Hypnotic Pattern

Rebuild the circuit from project #1, but reverse the polarity on the motor (M1) so the positive (+) on the motor goes to the positive (+) on the battery holder (B3).

Cut out the printed pattern from the cardboard along the dotted line with scissors and tape it to the fan blade. Spin the pattern by briefly pressing the press switch (S2). You will see the most interesting effects when the pattern is spinning slowly.

Project #4 Spin Draw

Use the circuit from project #3. Using the fan as a guide, draw a circle on a piece of cardboard or paper. Cut the circle out with scissors and tape it to the fan blade so it can be easily removed later (you may remove the red spiral pattern first). Obtain some thin and thick marking pens to use as drawing tools.

Spin the paper by pressing and holding the press switch (S2) down. Gently press the marker on the paper to form rings. To make spiral drawings, release the press switch and as the motor approaches a slow speed, move the marker from the inside outward quickly.

Change the colors often and avoid using too much black to get hypnotic effects. Another method is to make colorful shapes on the disc then spin the disc and watch them blend into each other.

Project #5 Strobe the House Lights

Use the circuit from project #4. Using a blank cutout, draw several straight lines from the edges through the center, evenly spaced like spokes on a bicycle wheel. Place the cutout on the fan and place atop the motor.

Place the circuit under a fluorescent light in your home and spin the disc slowly. As the speed changes, you may notice the lines first seem to move in one direction, then they start moving in another direction. This effect is because the lights are blinking 60 times a second and the changing speed of the motor is acting like a strobe light to catch the motion at certain speeds.

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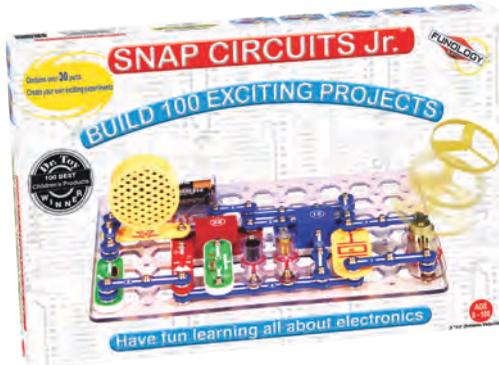
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Qty.	ID	Name	Part #
<input type="checkbox"/>	1	Base grid	6SCBGM
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<input type="checkbox"/>	1	B3	Battery holder 6SCB3
<input type="checkbox"/>	1	M1	Motor 6SCM1
<input type="checkbox"/>	1	Fan	6SCM1F
<input type="checkbox"/>	1	Cardboard pattern	6SCM1C
<input type="checkbox"/>	1	S2	Press switch 6SCS2



You may order additional / replacement parts at our web site: www.testequipmentdepot.com

BATTERIES:
 Use only 1.5V AA type (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. 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.



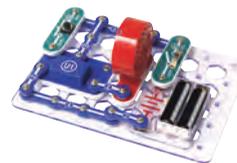
Musical Recorder Model SCP-01



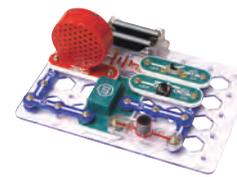
FM Radio Model SCP-02



Motion Detector Model SCP-03



Music Box Model SCP-04



Space Battle Model SCP-05