The **Space War IC** module contains sound-generation ICs and supporting components. It can make several siren sounds. Its actual schematic looks like this:

![Space War IC schematic](image)

Its Snap Circuits connections are like this:

```
IN1 (+) U3 OUT
IN2 (-)
```

**Space War IC:**

- (+) - power from batteries
- (-) - power return to batteries
- OUT - output connection
- IN1, IN2 - control inputs

Connect each control input to (-) power to sequence through 8 sounds.

This module has two control inputs that can be stepped through 8 sounds. The OUT connection pulls current into the module (not out of it), usually from a speaker. This current is adjusted to make the space war sounds. Snap Circuits project 19 shows how to connect this part and what it can do.

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The **Power Amplifier IC** module (not included in model SC-100) contains an LM386 audio amplifier IC and supporting components. Its actual schematic looks like this:

![Power Amplifier IC schematic](image)

Its Snap Circuits connections are like this:

```
INP (+) FIL OUT
INP (-)
```

**Power Amplifier IC:**

- (+) - power from batteries
- (-) - power return to batteries
- INP - input connection
- FIL - filtered power from batteries
- OUT - output connection

This module amplifies a signal from its input. The OUT connection will usually be directly to a speaker. Amplifiers like this let a small amount of electricity control a much larger amount, such as using a tiny signal from a radio antenna to control a speaker playing music. Snap Circuits projects 242 and 293 show how to connect this part and what it can do.

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The **High Frequency IC** (not in SC-100) is an TA7642 (or other equivalent) AM radio IC. It is a specialized amplifier used only in high frequency radio circuits. The circuitry looks like this:

![High Frequency IC schematic](image)

Its Snap Circuits connections are like this:

```
INP INP OUT
```

**High Frequency IC:**

- INP - input connection (2 points are same)
- OUT - output connection
- (-) - power return to batteries

This module converts an AM radio signal at its input into an audio signal at its output. Snap Circuits project 242 shows how to connect this part and what it can do.