nano\_amp 9.95

**Discover the nano sounds around you with this small, battery operated audio amplifier.** The gain of the LM386 amplifier chip is internally set to 20 to keep external part count low. The addition of an external capacitor between pins 1 and 8 will increase the gain to 200.



## **Assembly Plan**

Ok, let's try this Go for some soldering action...

If a tree falls in a forest, and everyone is wearing iPods ...

nanoAMP

2.2kΩ

LED

Mini-Jack

Micro or Piezo speaker

Mini-Jack

LM386

Do one thing a a time. Starting with the amplifier chip in the middle. The groove on the chip has to point to the left. Battery-clip, red is +, black GND (to the outside area)



Schematics

V<sub>IN</sub> Ο 10μF V<sub>IN</sub> Ο 10μF 1

The microphone (or a little speaker) is connected to the input Vin. The operational amplifier LM386 does what is says, it amplifies if it is operating... To do so, power from the battery has to be connected to the + (Vs) and to the ground (GND). The capacitor on pin 1 and 8 sets the amplification to 200 times the input signal.

SSAM Société Suisse d'Art Méchatronique



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SMAS Swiss Mechatronic Art Society

**SGMK** Schweizerische Gesellschaft für Mechatronische Kunst www.mechatronicart.ch