

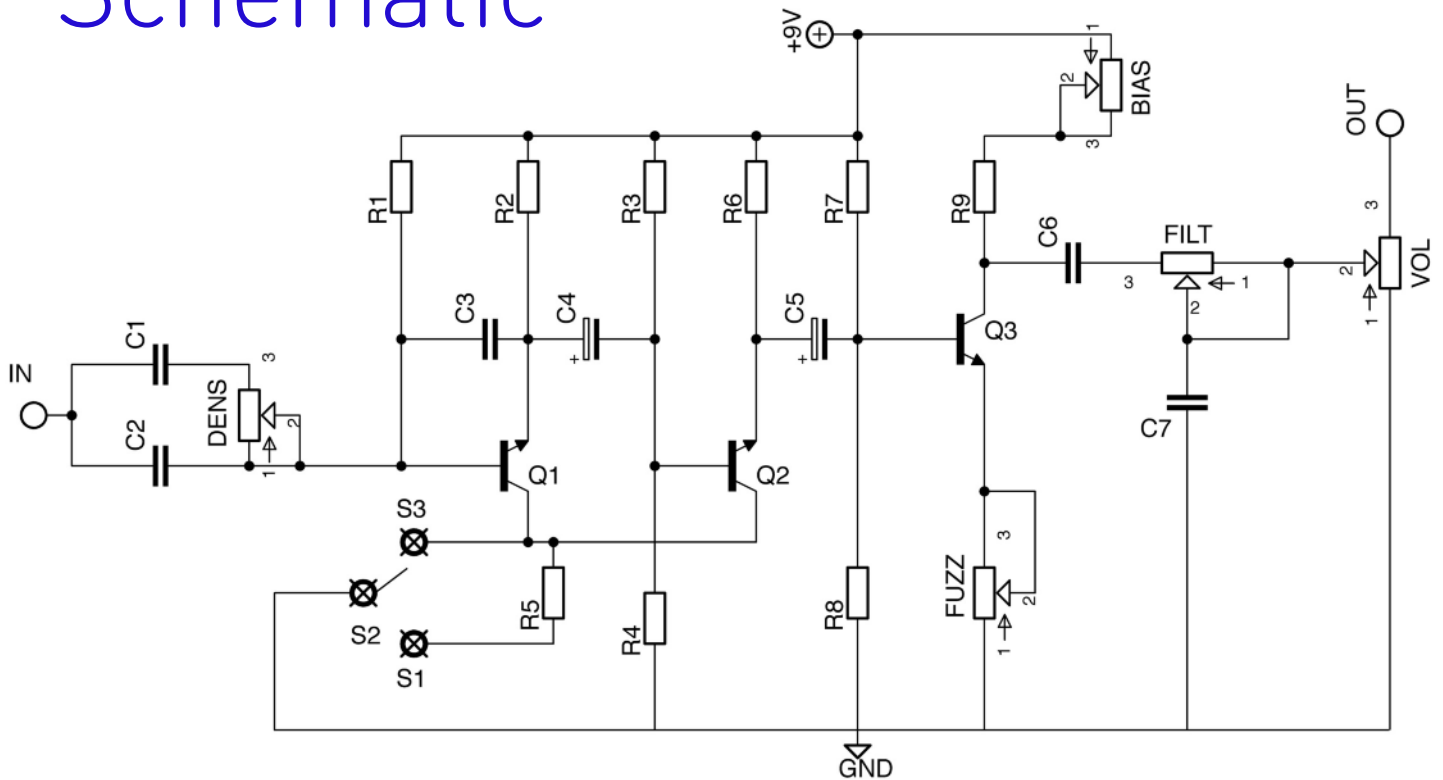


Bionic GuzzFun

5 knobs of sonic mayhem
and an oscillation switch too

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Schematic



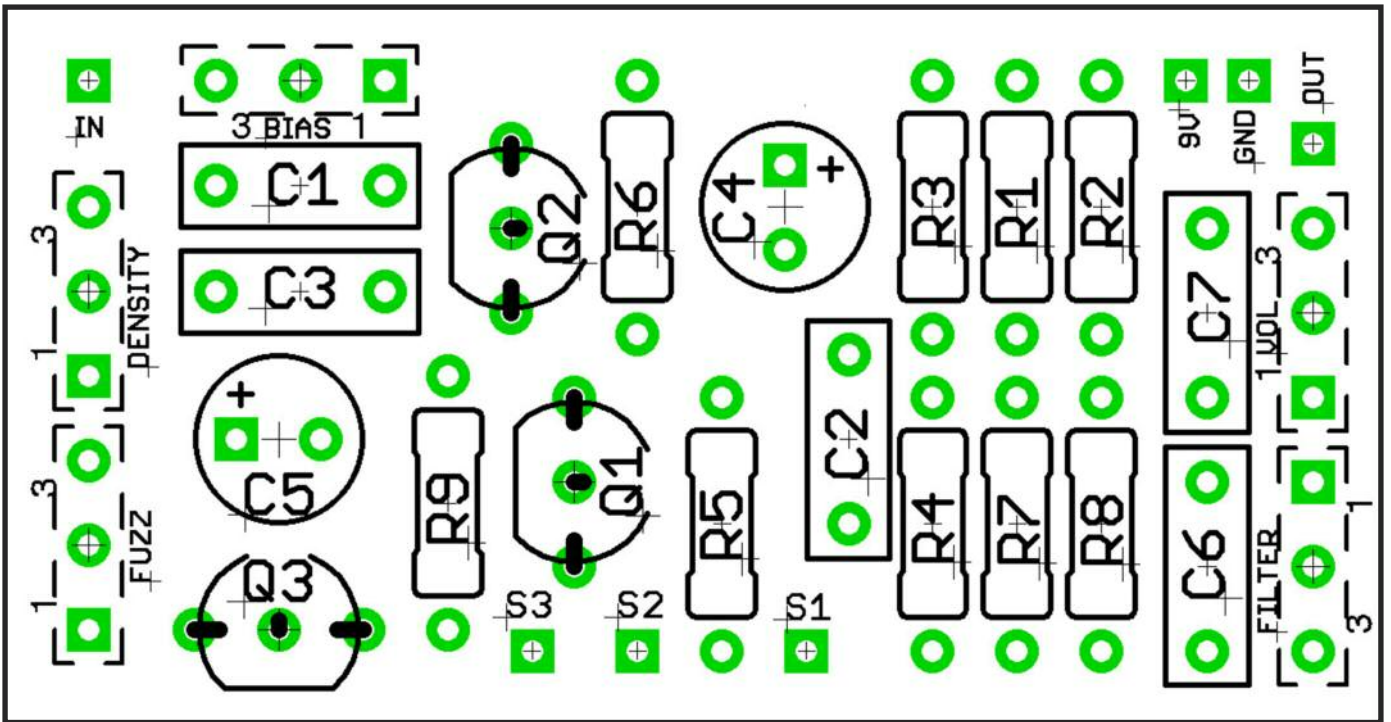
BOM

R1	910K	C1	100n		
R2	180K	C2	10n	Q1,2	2N5089
R3	910K	C3	470p	Q3	2N5306
R4	910K	C4	4.7u		
R5	10K	C5	4.7u	DENS	100KB
R6	180K	C6	100n	FUZZ	10KB
R7	4M7	C7	330n	FILT	10KB
R8	910K			BIAS	50KB
R9	750R	S1-3	SPDT	VOL	100KA

This circuit is a bit of a sonic mess, but if shambolic noise is your thing then it will surely deliver.

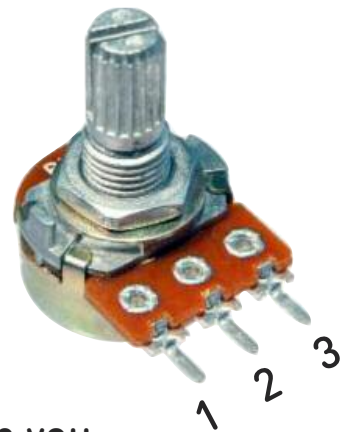
S1-3 is a SPDT switch (supplied as DPDT in kit in case you want to do some fancy bi-colour LED stuff), transforms the unit between normal insanity and totally off-the-map oscillation gooblegabble time.

QUICK NOTE: The 2N5306 has non-standard pin-out, so if you're looking to sub it with a different darlington transistor you may have to do some leg twisting. In fact you will, no may about it.



!!!IMPORTANT!!! (ish)

There's a minor error on the board labelling. Sorry, but late-night PCB design takes its toll now and again. Pads 1 and 3 of the FUZZ control should be reversed, i.e. connect pin 3 of the pot to board pad 1, and vice versa.



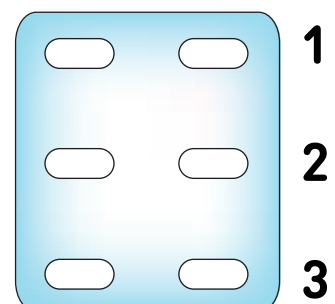
Wiring shown overleaf will disconnect the battery when you remove the jack plug from the input, and also when a DC plug is inserted.

Snap the little metal tag off the pot to mount it flush in the box.

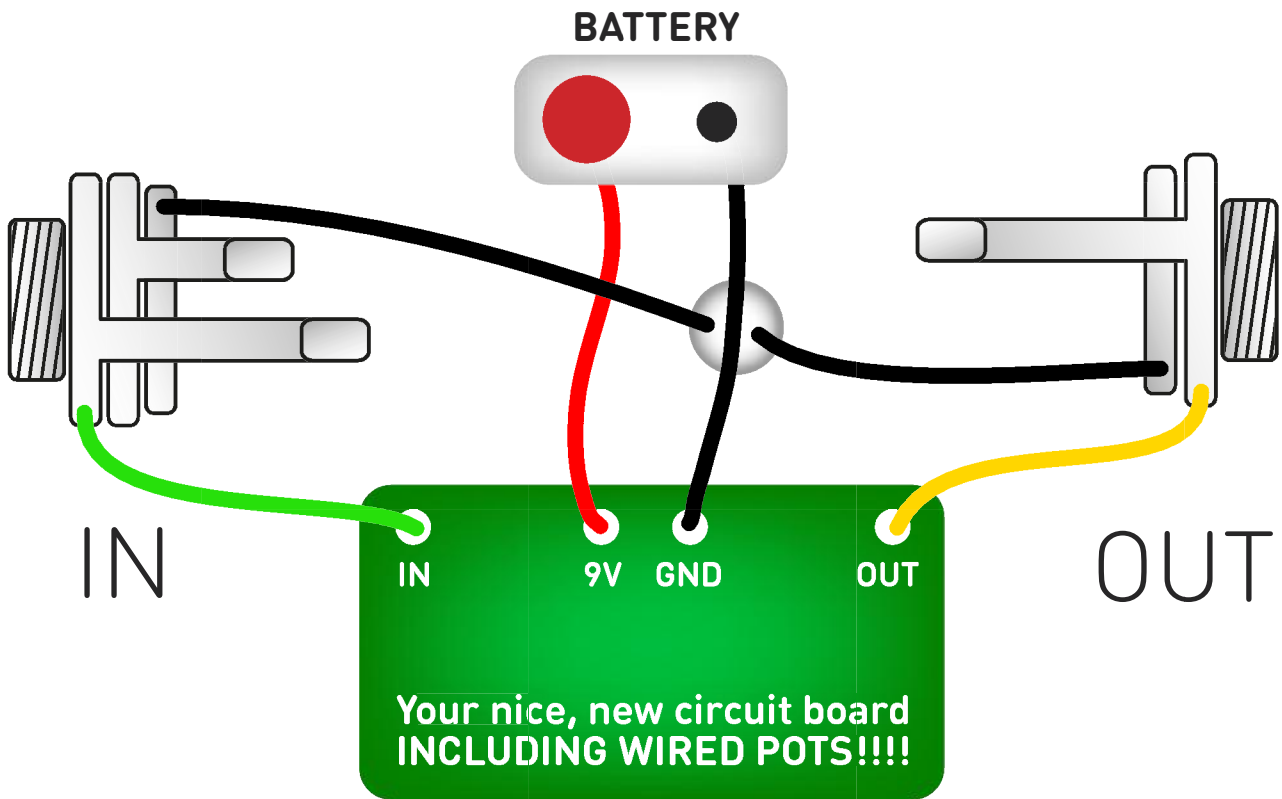
You **MUST** use some kind of heat sink on the legs of the transistors when soldering. They aren't keen on heat. Any more than 3-4 seconds of iron and they're toast.

Recommended assembly order:
Resistors, Caps, Transistors, Wires, Pots

S1-3 connect to the lugs of the switch like this >>>
(only one row if you're using your own SPST)



Test the board!

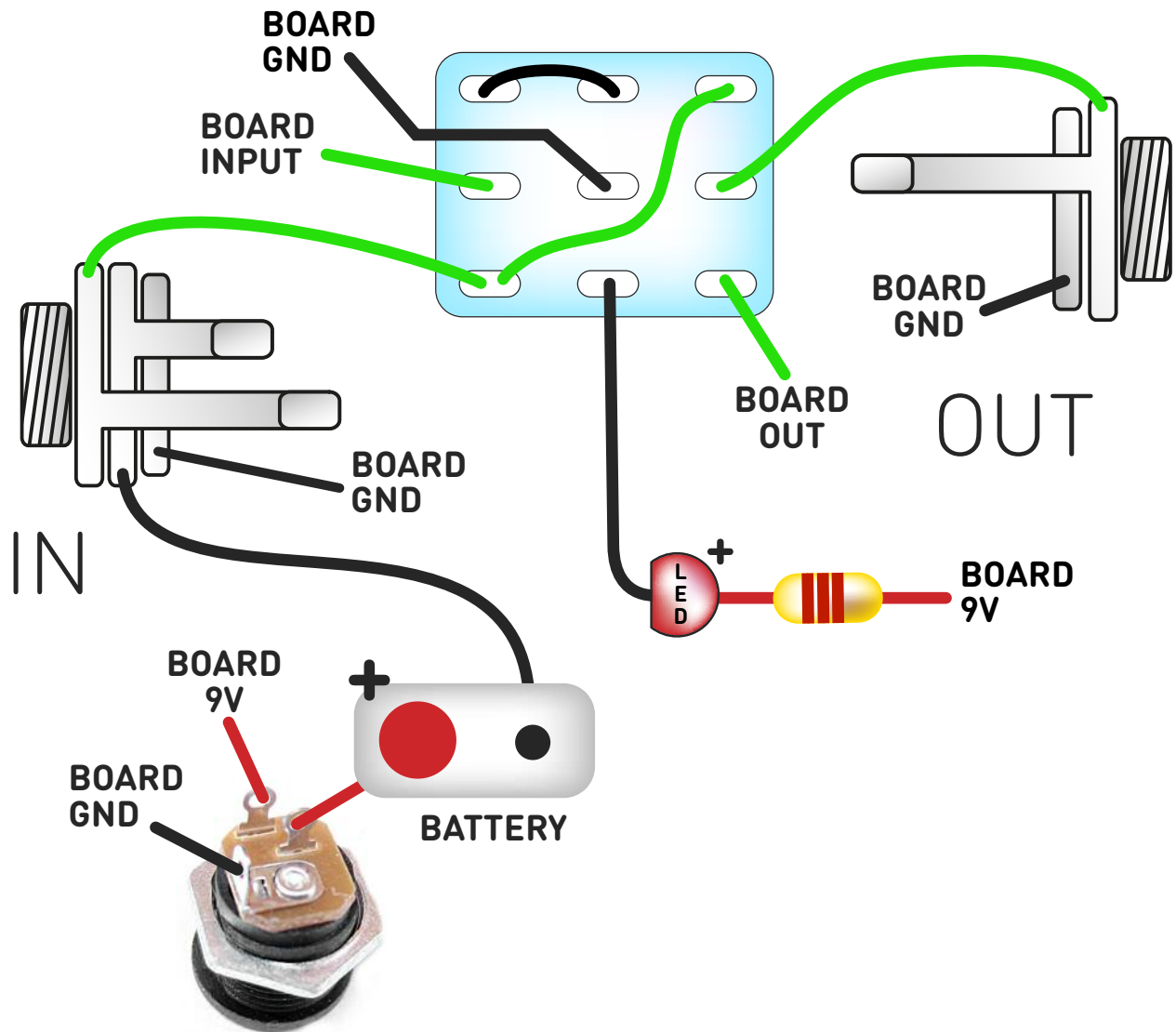


Once you've finished the circuit it makes sense to test it before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

Solder some nice, long lengths of wire to the board connections for 9V, GND, IN and OUT. Connect IN and OUT to the jacks as shown. Connect all the GNDs together (twist them up and add a small amount of solder to tack it). Connect the battery + lead to the 9V wire, same method. Plug in. Go!

If it works, crack on and do your switch wiring. If not... aw man. At least you know the problem is with the circuit. Find out why, get it working, THEN worry about the switch etc.

Wire it up



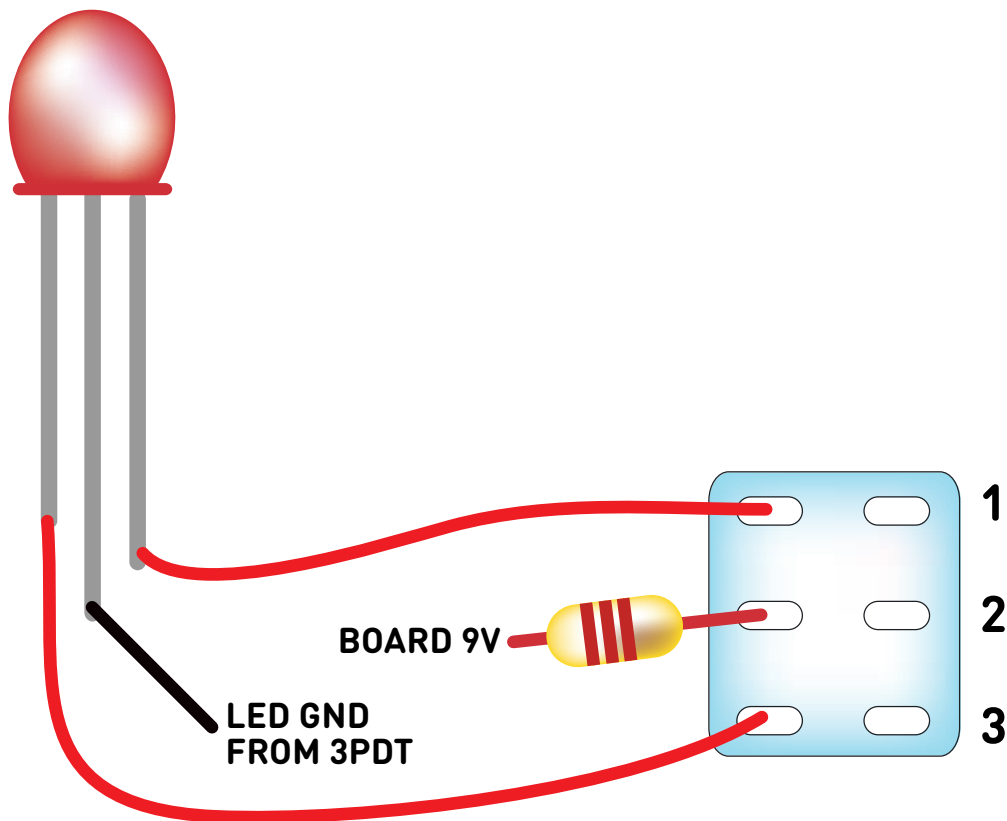
The Board GND connections don't all have to directly attach to the board. You can run a couple of wires from the DC connector, one to the board, another to the IN jack, then daisy chain that over to the OUT jack.

It doesn't matter how they all connect, as long as they do.

This circuit is standard, Negative GND. Your power supply should be Tip Negative / Sleeve Positive. That's the same as your standard pedals (Boss etc), and you can safely daisy-chain your supply to this pedal. Now... GO GET FUZZY!

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Wire it up - LED fun!



You can wire a tri-colour LED to indicate whether you're in madness mode or not. Simply route the LED power wiring to the DPDT as shown above. This will work whether you have an LED with common anode OR cathode, just reverse what's being switched.

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