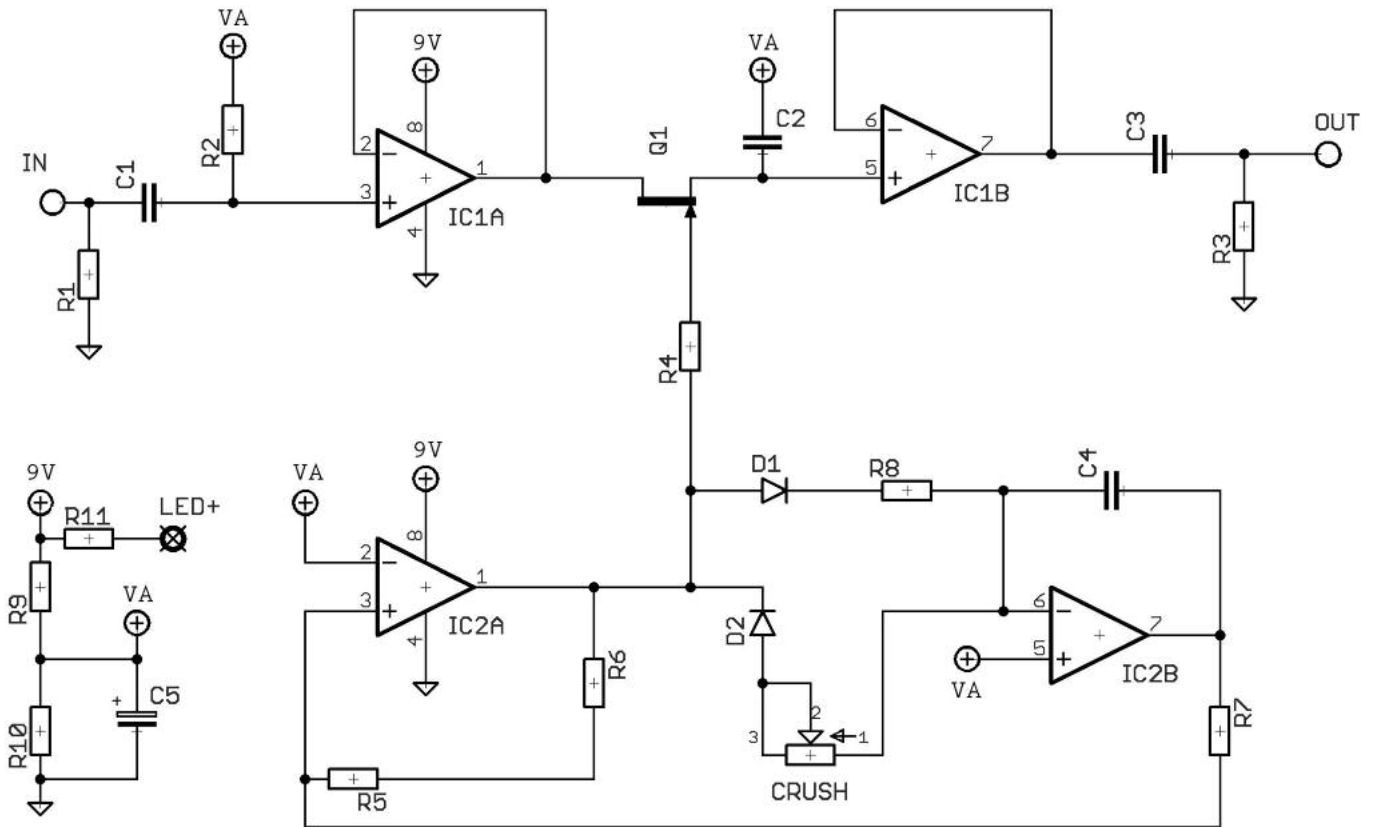


# Crusher

Analog Bit Crusher  
from ExpAnon

[PedalParts.co.uk](http://PedalParts.co.uk)

# Schematic



# BOM

- R1 1M
- R2 1M
- R3 1M
- R4 820K
- R5 100K
- R6 22K
- R7 100K
- R8 100R
- R9 100K
- R10 100K
- R11 CLR (2K2)

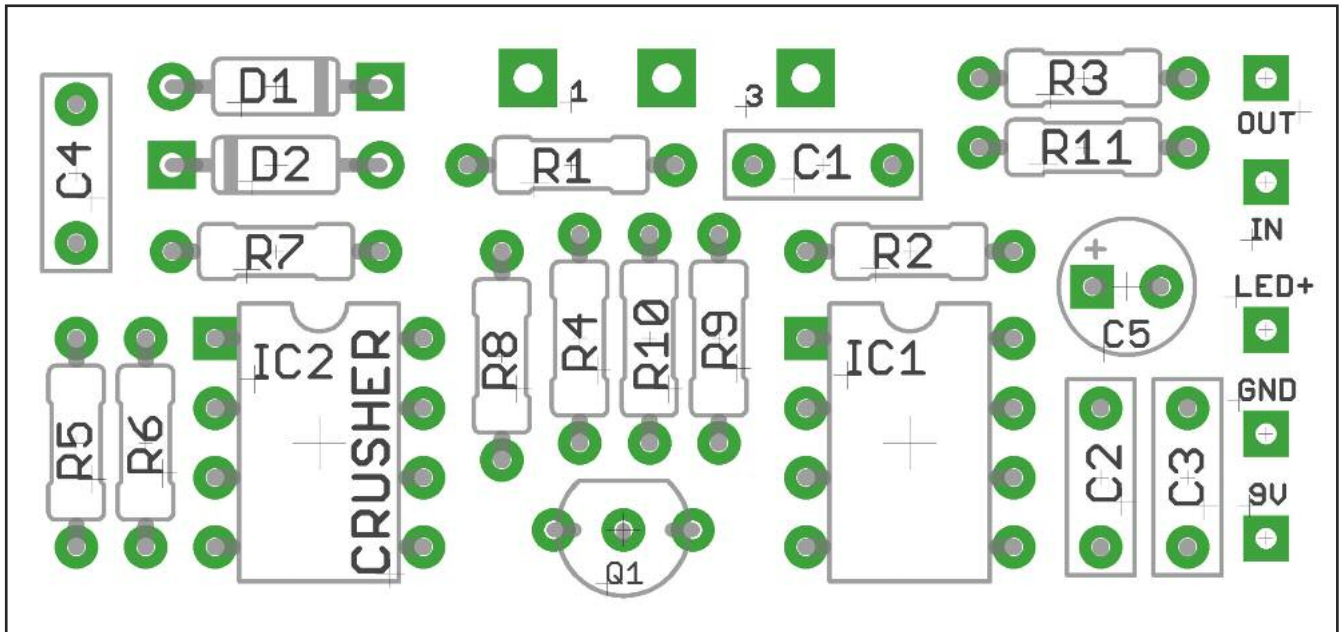
It'll mess with your signal.  
NICE!

- C1 100n\*
- C2 1n
- C3 100n\*
- C4 3n3
- C5 10u
- IC1 TL072\*\*\*
- IC2 NE5532\*\*\*
- D1,2 1N4148
- POT 1MB
- Q1 2N5457\*\*

\*C1 and C3 could be increased for more bass.

\*\*other N-channel JFETs could be used, but 2N5457 has been best during tinkering.

\*\*\*other op-amps could be used, but this pairing worked every time - others didn't.



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 pots to mount them flush in the box.

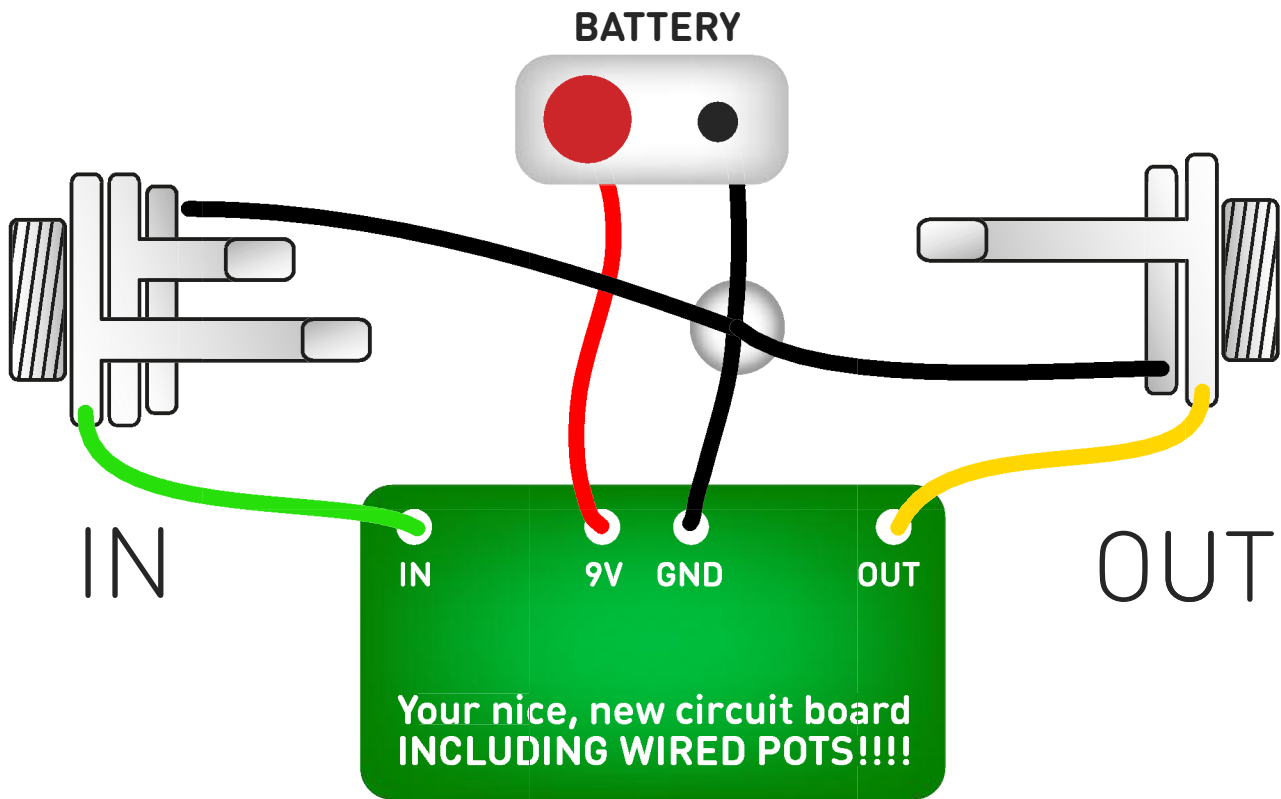
You should use some kind of heat sink on the legs of the transistor and diodes when soldering. They aren't keen on heat. Any more than 3-4 seconds of iron and they're toast.

I've incorporated the Current Limiting Resistor for the LED into the board for your pleasure.



**NOTE:** the pot mounts on the back-side of the board - keeps it clear of all those other pesky components.

# Test the board!

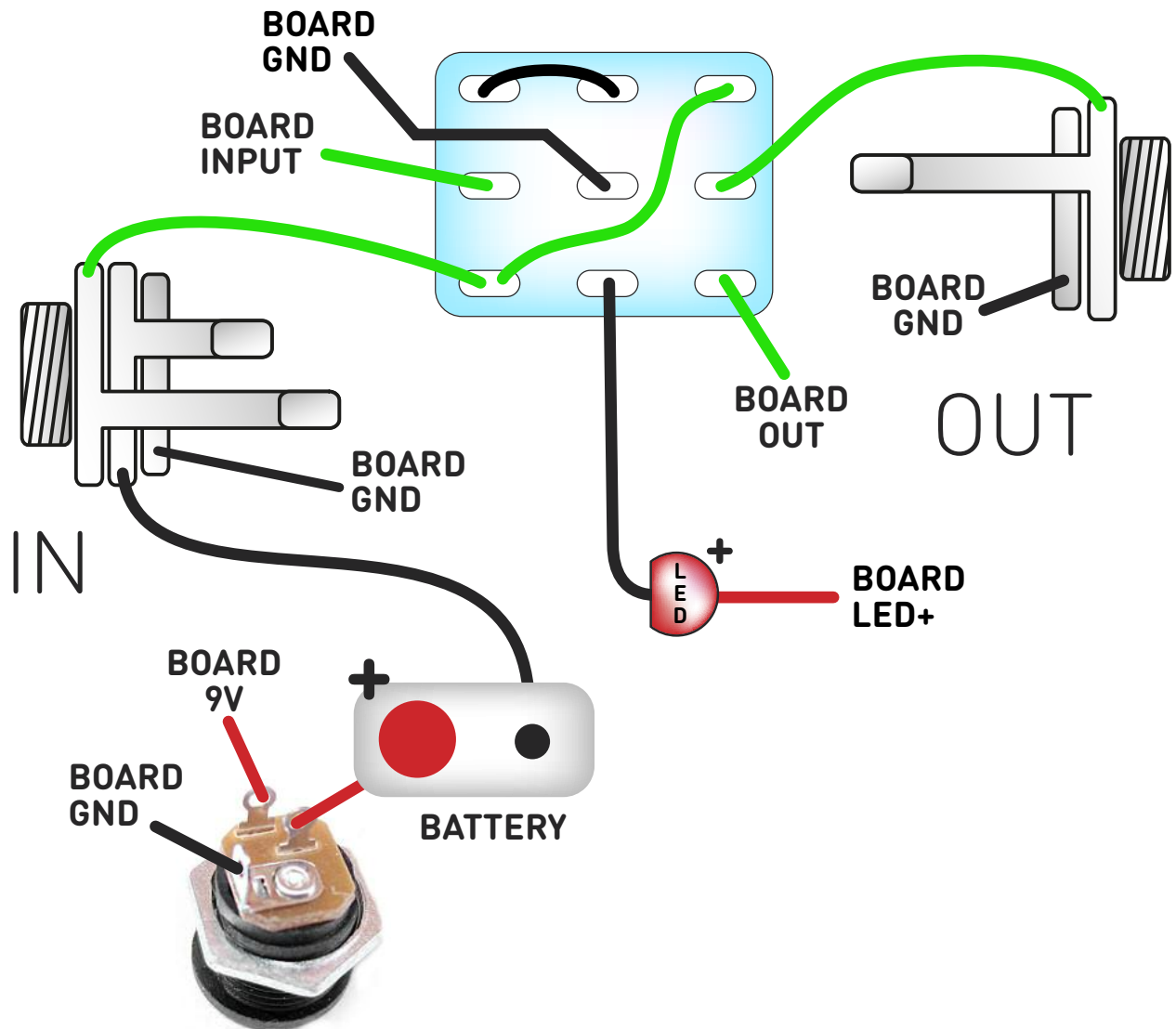


Once you've finished the circuit it makes sense to test it before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

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... CRUSH SOME BITS!

[PedalParts.co.uk](http://PedalParts.co.uk)