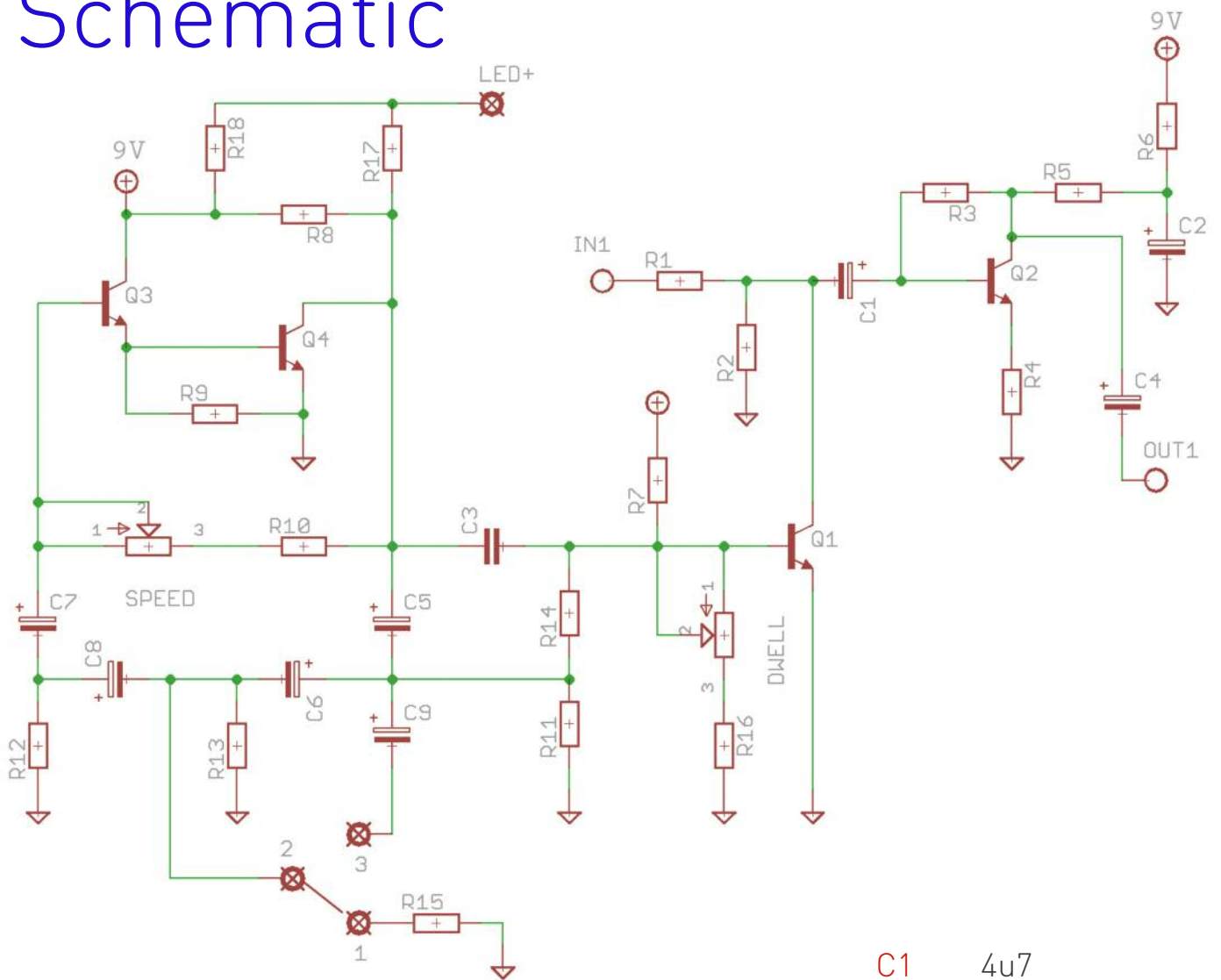


Throb

MarkM's improved
Schaller Tremolo

PedalParts.co.uk

Schematic



BOM

R1	47K
R2	47K
R3	470K
R4	2K2
R5	6K8
R6	2K2
R7	330K
R8	6K8
R9	6K8
R10	27K

R11	2K2
R12	2K2
R13	2K2
R14	47K
R15	220R
R16	15K
R17	2K2 (CLR)*
R18	2K2 (CLR)*
R19	1M

C1	4u7
C2	22u
C3	47n
C4	4u7
C5	10u
C6	22u
C7	22u
C8	10u
C9	4u7

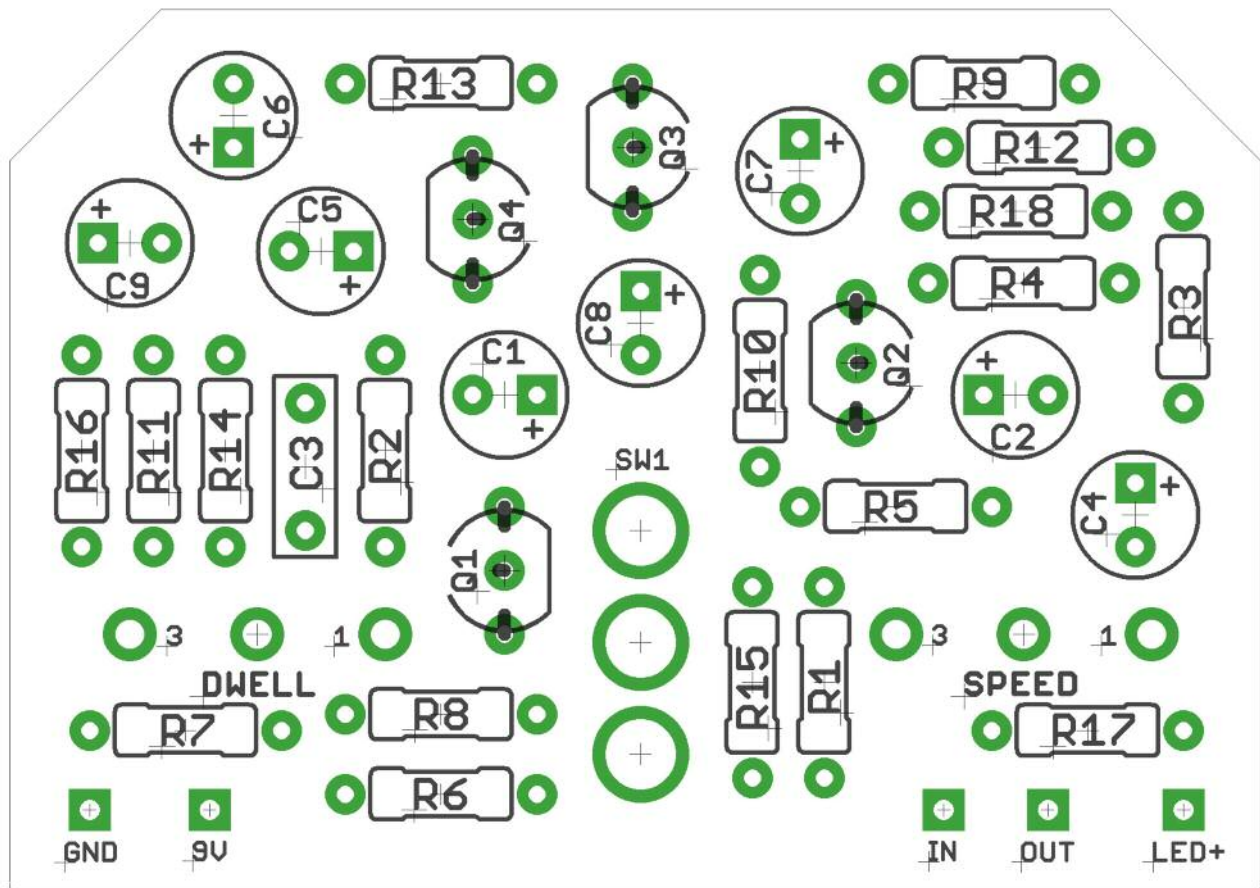
Q1-4 2N5088

DWELL 25KB

SPEED 1MB

SW1 SPDT ON-ON

*Use either R17 or R18, not both. R18 for static LED, R17 for rate-indicator LED.

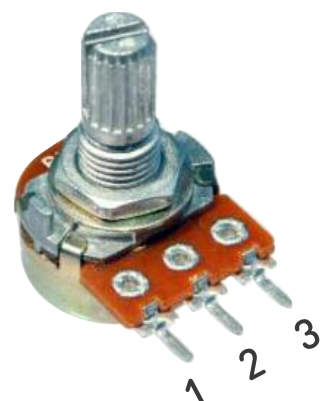


Wiring shown overleaf will disconnect the battery when you remove the jack plug from the input, and also when a DC plug is inserted.

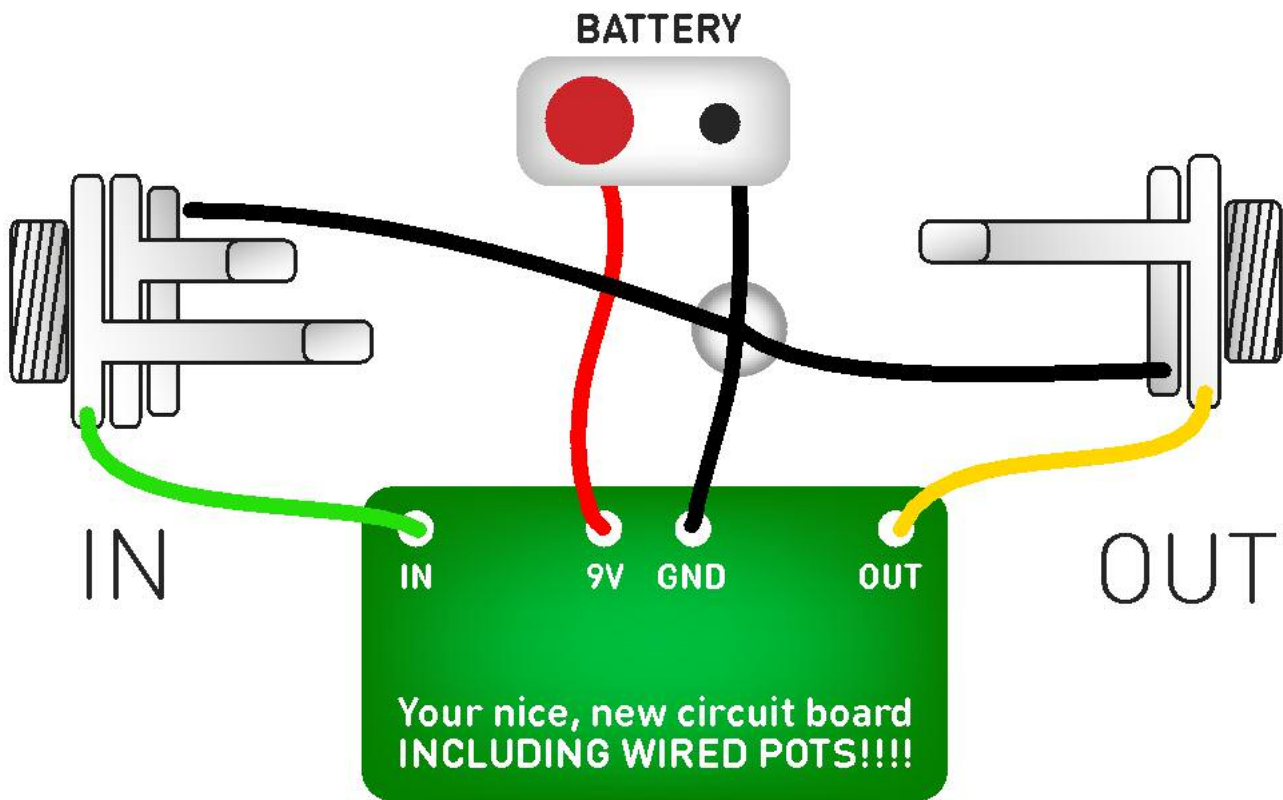
Snap the little metal tag off the pots to mount them flush in the box.

I've incorporated the Current Limiting Resistor for the LED into the board for your pleasure. You can wire it as a normal, static on/off indicator or as a rate-indicator. See the notes on the BOM.

The speed switch mounts to the underside of the board. Once attached to the box this will hold the PCB firmly in place.



Test the board!

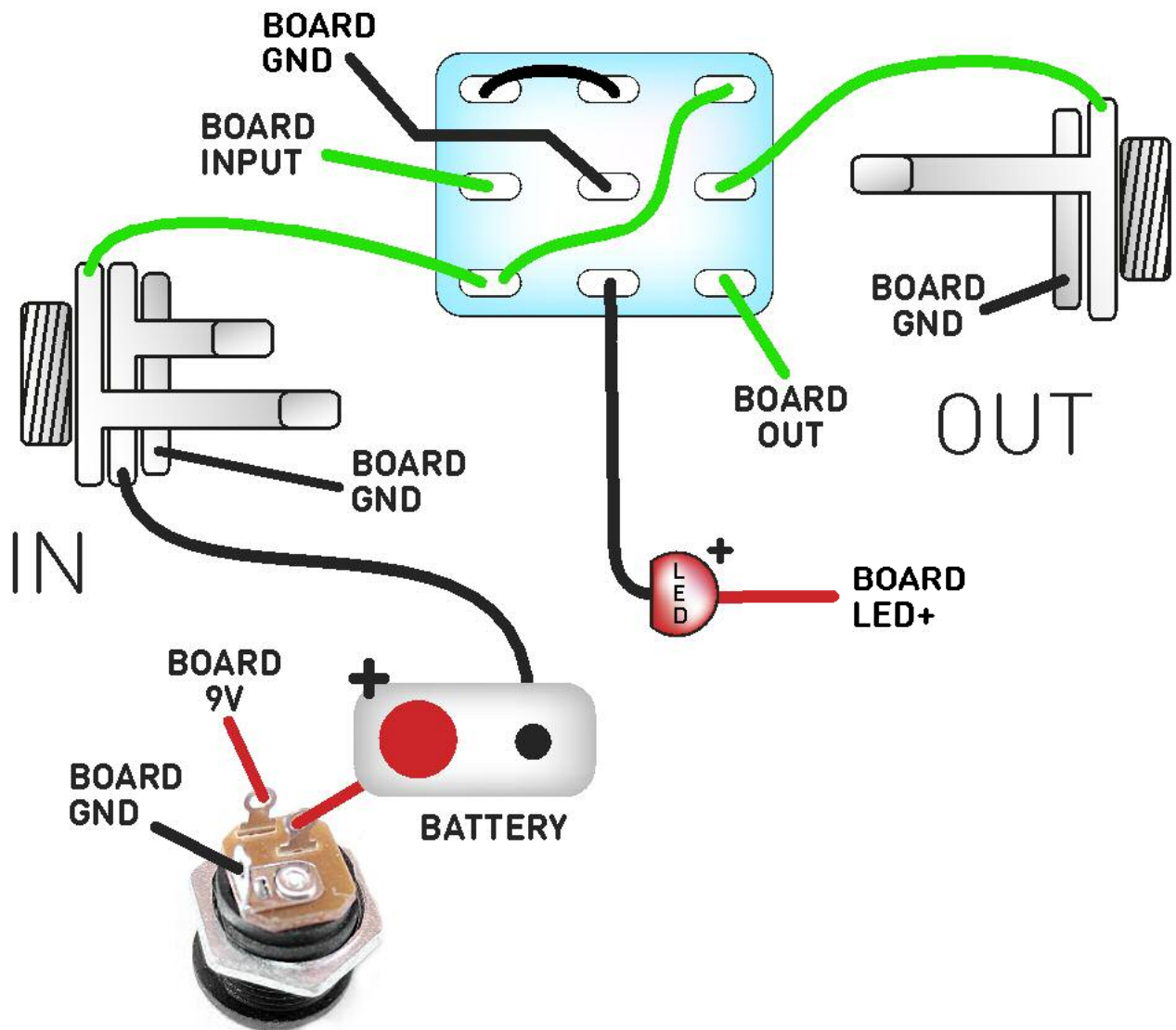


Once you've finished the circuit it makes sense to test it before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

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



Attach one leg of R19 to the same switch lug as BOARD INPUT, the other leg to any permanent GND point, i.e. the centre switch lug or either JACK GND.

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... THROB!

PedalParts.co.uk