

TRI-VIBE V1.1

Runoffgroove's Tri-Vibe – a very usable vibrato effect

OVERVIEW

All credit for the circuit goes to <http://runoffgroove.com>. You will also find a lot of [sound samples](#) and [documentation](#) on their website.

GENERAL

This is my attempt on an easy-to-use PCB for this great sounding Vibrato circuit.

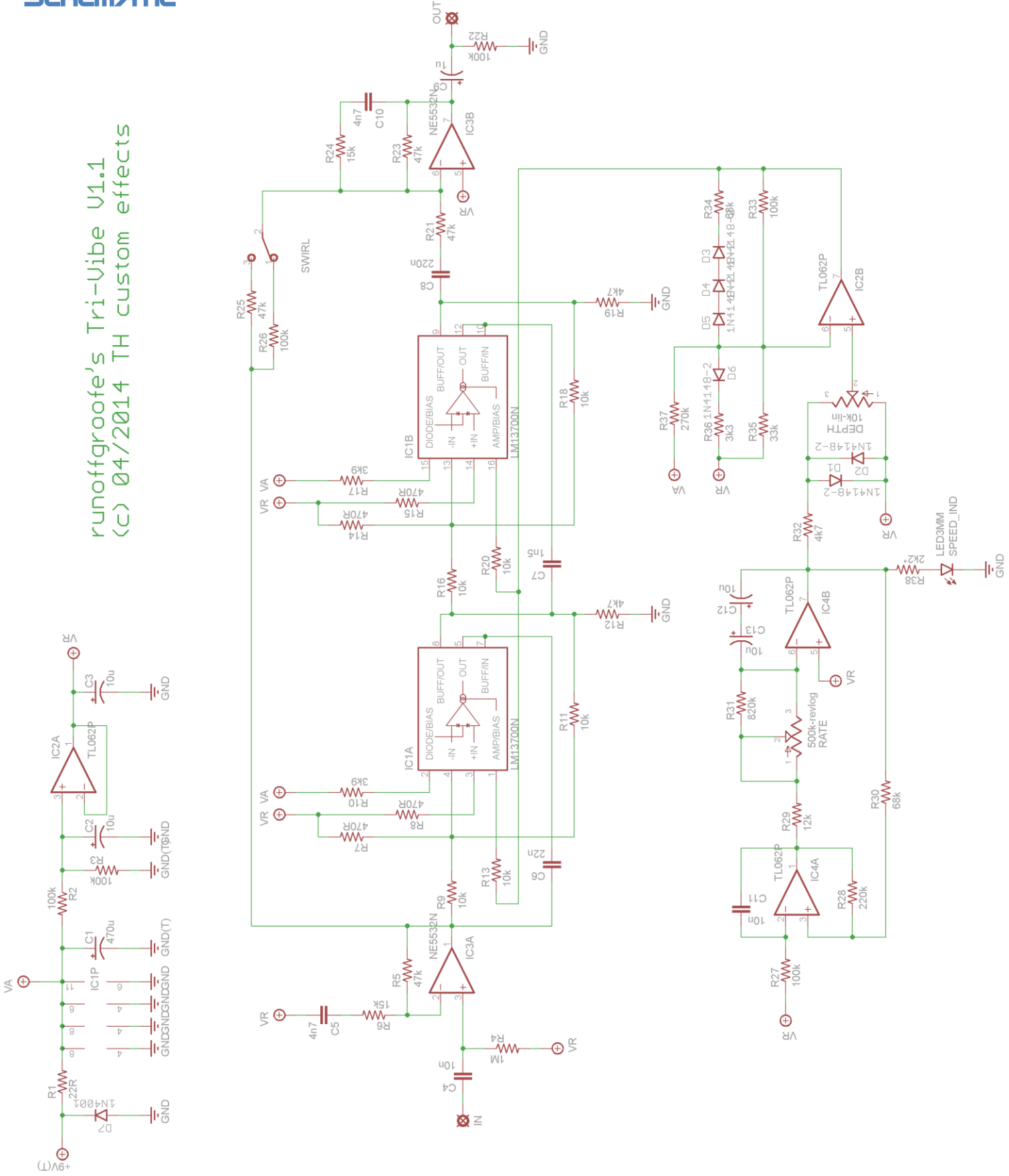
It contains the rate-indicator-LED mod and polarity protection.

This is a great example how switching a parameter can strongly enhance the usability of an effect.

The SWIRL switch enhances the tonal possibilities of this Vibrato and offers different sounds from just one effect.

SCHEMATIC

runoffgroove's Tri-Vibe V1.1
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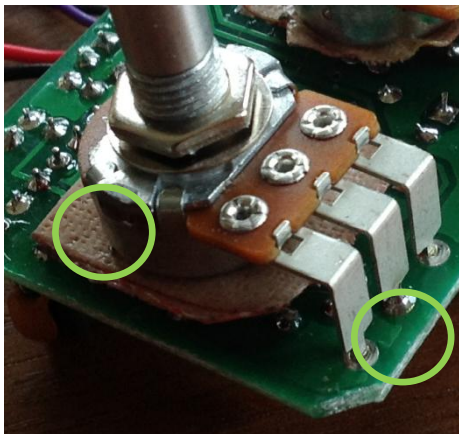
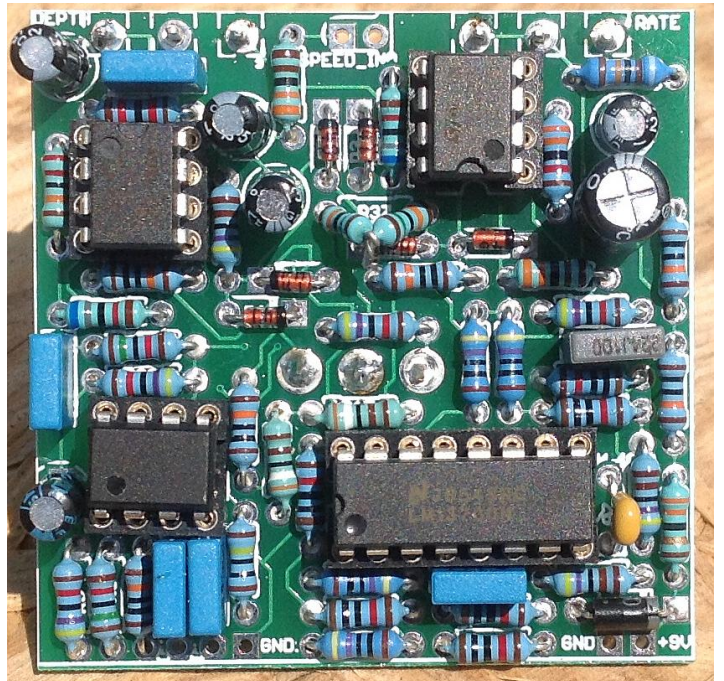
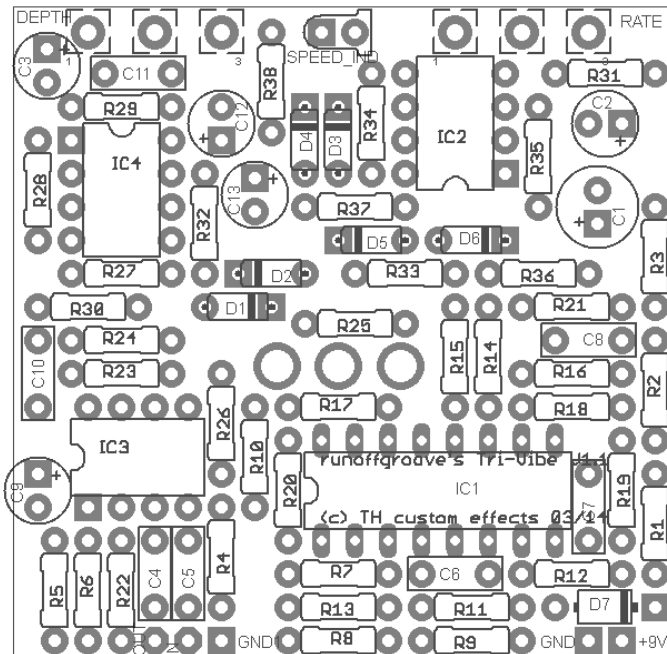
BILL OF MATERIALS

	<i>Device#</i>	<i>Qty</i>	<i>Value</i>	<i>Comment</i>
Resistors	R1	1	22R	
	R2, R3, R22, R26, R27, R33	6	100k	
	R4	1	1M	
	R5, R21, R23, R25	4	47k	
	R6, R24	1	15k	
	R7, R8, R14, R15	4	470R	
	R9, R11, R13, R16, R18, R20	6	10k	
	R10, R17	2	3k9	
	R12, R19, R32	3	4k7	
	R28	1	220k	
	R29	1	12k	
	R30, R34	2	68k	
	R31	1	820k	
	R35	1	33k	
	R36	1	3k3	
	R37	1	270k	
	R38	1	2k7*	CLR for speed indicator LED
	Capacitors	C1	1	220u
C2, C3, C12, C13		3	10u	polarized electro
C4, C11		1	10n	box film
C5, C10		2	4n7	box film
C6		1	22n	box film
C7		1	1n5	box film
C8		1	220n	box film
C9		1	1u	polarized electro
Diodes		D1-D6	1	1N4148
	D7	2	1N4001	
Pots	DEPTH	1	10k-lin	16mm right-angle print
	RATE	1	500k-rev-log	16mm right-angle print
ICs	IC1	1	LM13700	
	IC2, IC4	2	TL 062	
	IC3	1	NE5532	
Other	SW1	1	SPDT	on-off-on

BUILDING

There are a lot of components on a relatively small space. Take your time and everything will work out well.

Start populating the diodes and resistors first. Then put the IC sockets in next. Last are ceramic and film box capacitors, then the electrolytic.



The board mounted pots need to go onto the other side of the board. Use some (double-sided) tape to make sure the pot cases do not shorten any pins that come through the board. As you solder them it is good practice to apply some solder to the middle pin first, then pull it back approx. 1mm and let it harden. Then solder the other pins. This will align the pot horizontally in a better way and avoid shortcuts of the wide pot pins and the board.

Don't forget to clip off the small bracket before you mount the circuit.

The SPDT switch also will be mounted from the solder-side.

The short pin of the speed LED goes through the round hole.

DISCLAIMER & LICENSE

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