# THE GREEN CURRANT TREMOLO

Build Document last updated june 2017
for PCB version 1.5

The Green Currant tremolo is a very percussive and vibey tremolo based around the TDA7052A amplifier chip. It splits the signal into two paths that are out of phase. One side is static and the other is filtered and amplitide modulated, then both paths are summed together. This results in what sounds almost like a light vibrato/phaser'ish effect. This tremolo has a range pot insted of a conventional depth pot. It controls the frequency-range of the modulation. The Attack switch toggles between hard and soft attack (saw/ramp waveshape). Happy playing!
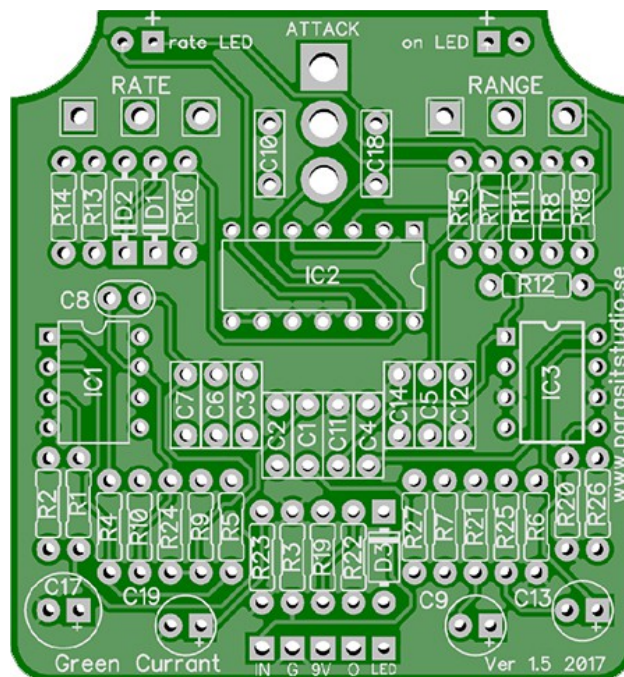
General builds tips

- Solder the low profile components first, from short to tall. Recommended order: resistors, diodes, IC socket, film-caps, electrolytics, pots and switches
- Always use sockets for IC chips and transistors to avoid heating them directly. It also makes it much easier to swap them out if needed.
- Pay special attention to the orientation of the diodes and electrolytics.
- This PCB is designed for board mounted angeled pots, but if you want to use regular solderlug-pots, the square holes represents pin 1 of the pot.
- The pots and the switch are meant to be mounted on the backside (solder side) of the board and soldered on the front (component side).

Wiring

For more info on how to wire up the stompswitch, jacks ect, please visit the Parasit Studio website and download the PDF called "offboard wiring". You can find it here:

http://www.parasitstudio.se/build-docs.html

Possible mod: Use a on/off/on switch insted if you want a triangle wave-shape aswell in the middle (off) position. Personally I don't think it sounds good in this circuit, the rate is much slower and it sounds like a panting dog. But it's an easy mod so I thought it would be worth mentioning.

The Green Currant Bill Of Materials (BOM)

Resistors		Capacitors		IC's	
R1	1K	C1	10nF	IC1	TL072
R2	1M	C2	10nF	IC2	LM324
R3	1M	C3	100nF	IC3	TDA7052A
R4	10K	C4	22nF		
R5	1K	C5	100nF		
R6	47K	C6	15nF		
R7	68K	C7	1nF		
R8	470K	C8	470pF		
R9	100K	C9	4.7uF		
R10	10K	C10	100nF	**Potentiometers**	
R11	47K	C11	100nF	RATE	B50K
R12	33K	C12	220nF	RANGE	A50K
R13	47K	C13	1uF		
R14	18K	C14	6.8nF		
R15	510K	C17	220uF		
R16	680K	C18	100nF		
R17*	15K	C19	47uF		
R18	470K	**Diodes**		**Switches**	
R19	47R	D1	1N4148	Attack	SPDT on/on
R20	100K	D2	1N4148		
R21	100K	D3	1N5817		
R22	10K	2x LED's			
R23	10K				
R24	150K				
R25	220K				
R26*	15K				
R27	10K				

- * R17 is the current limiting resistor for the rate indicator LED. R26 is the current limiting resistor for the bypass LED.
  Use the appropriate value for the CLR resistors to match the brightness of your LED type. For normal diffused LEDs I recommend using 4.7K resistors and for clear superbright

Drilling template (1590B)

bypass LED   rate LED

SWITCH

RANGE   RATE
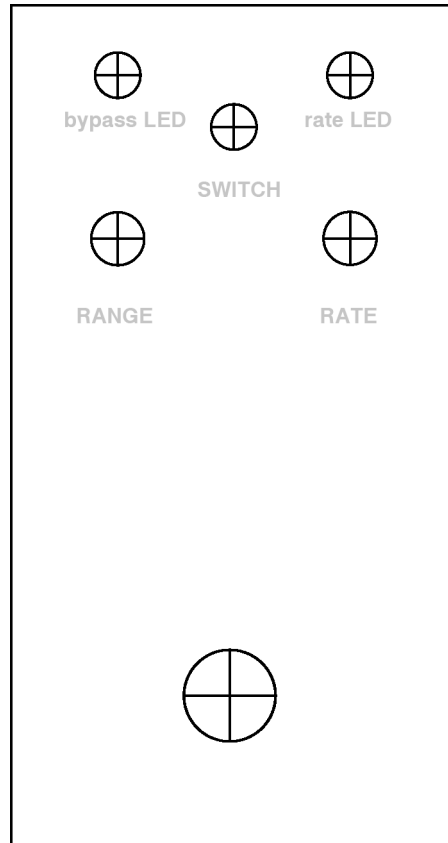
Use at your own risk! This templete is approximate.
- Make sure your printer isn't doing any scaling / is set to 100% print size.
- Drill stompswitch, DC jack and input/output jack to your own preference.
- This is just a suggestion. If you want the DC jack at the top you should probably have the PCB a bit lower.
- Measure and confirm before drilling!

Troubleshooting

There's always a chance of running into trouble. To minimize error, follow the BOM and general building tips carefully. Take your time and don't rush. Take a break now and then. Use good solder, and it helps to have a decent soldering station insted of a cheap iron.

Musikding DIY kit

If you have bought the Musikding DIY kit and have recieved a faulty faulty, incorrect or missing component, please contact musikding.
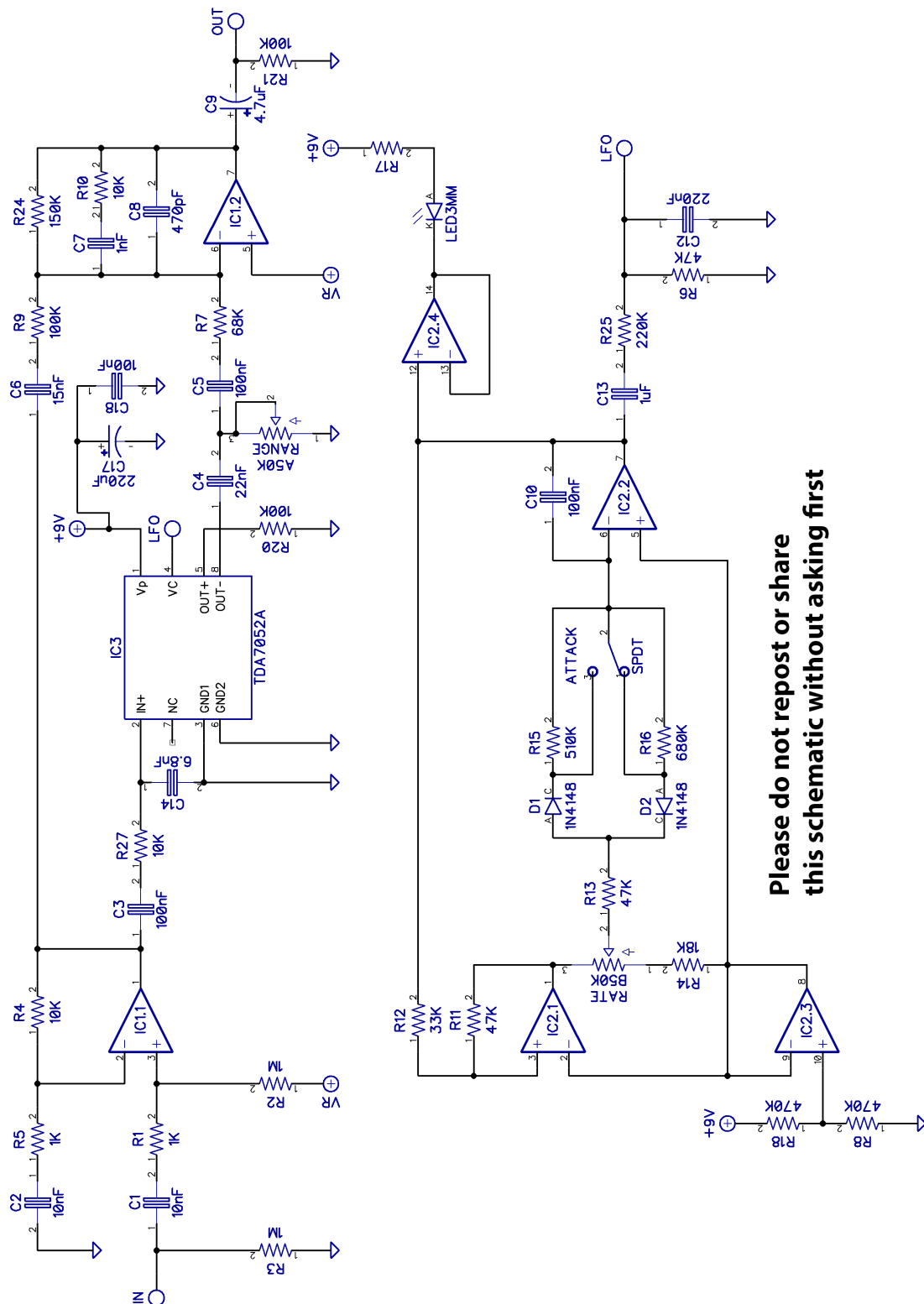
Contact us

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Schematic

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this schematic without asking first

IN
OUT
LFO
VR
VR

IC1.1
IC1.2
IC2.1
IC2.2
IC2.3
IC2.4
IC3
TDA7052A

Vp VC
IN+ NC
GND1 GND2
OUT+ OUT−

+9V
+9V
+9V

R1 1K
R2 1M
R3 1M
R4 10K
R5 1K
R6 47K
R7 68K
R8 470K
R9 100K
R10 10K
R11 47K
R12 33K
R13 47K
R14 18K
R15 510K
R16 680K
R17
R18 470K
R20 100K
R21 100K
R24 150K
R25 220K
R27 10K

RATE B50K
RANGE A50K

C1 10nF
C2 10nF
C3 100nF
C4 22nF
C5 100nF
C6 15nF
C7 1nF
C8 470pF
C9 4.7uF
C10 100nF
C12 220nF
C13 1uF
C14 6.8nF
C17 220nF
C18 100nF

D1 1N4148
D2 1N4148
LED3MM

ATTACK
SPDT