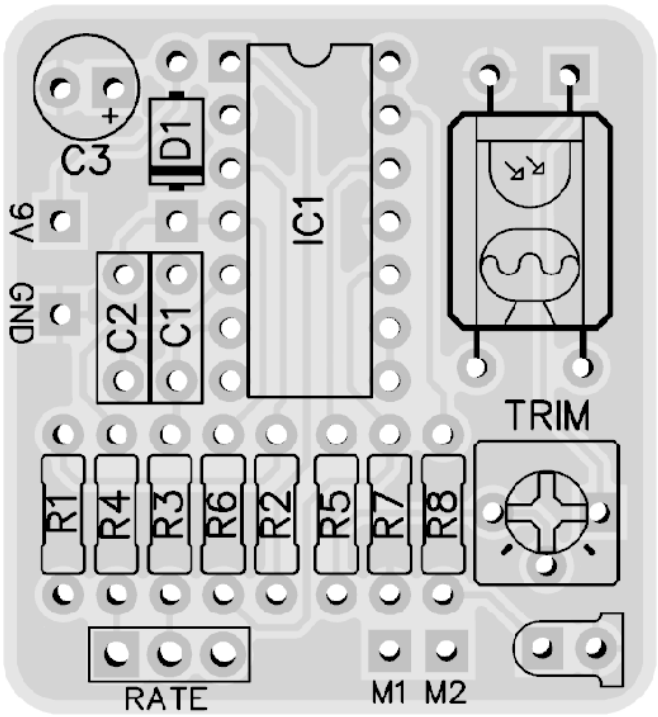
MODBOARD

LFO daughterboard

Build Document last updated may 2016
for PCB version 1.0

The ”Modboard” is a small trianglewave LFO daughterboard that you can hook up to other circuits to create new sounds. Many Parasit Studio board will have modboard connections in future revisions.

It's possible to hook this up to just about any potentiometer that is configured as a variable resistor, to modulate it's function. But you will need to experiment with different vactrols (or LED+LDR combinations) to find the ones best suited for the task.



General build tips

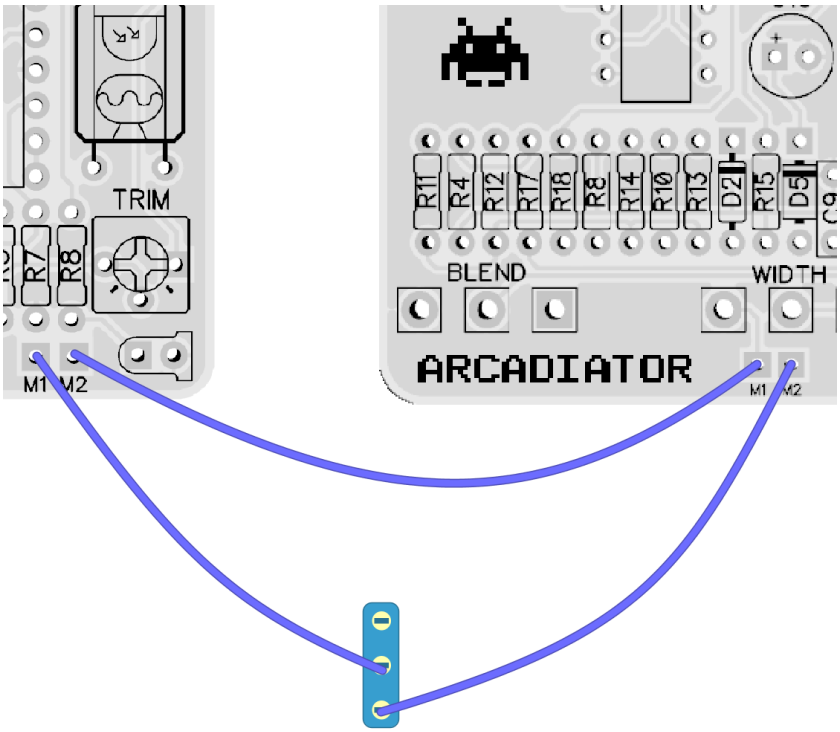
- Solder the low profile components first, from short to tall. Recommended order: resistors, diodes, IC socket, film-caps, electrolytics.
- Pay special attention to the orientation of the diodes and electrolytics.
- Always use sockets for IC chips and transistors to avoid heating them directly. It also makes it much easier to swap them out if needed.
- It's a good idea to use sockets for the vactrol aswell until you have tested it.
- The modboard is not designed for a board mounted pot, switch or rate indicator LED, so these will have to be wired offboard.
- The square hole represents pot pin 1 of the rate pot.

Modboard Bill of Materials (BOM)

Resistors		**IC's**	
R1	33K	IC1	LM324
R2	47K		
R3	470K	**Potentiometers**	
R4	2.2K	RATE	B100K
R5	4.7K	trimmer	10K
R6	470K	**Switches**	
R7	470K	1x SPDT on/on	
R8	4.7K*		
Capacitors		**Diodes**	
C1	100nF	D1	1N5817
C2	100nF	1x LED (rate indicator)	
C3	47uF	1x vactrol (or 1x LED + 1x LDR)	

- * Current limiting resistor for the rate indicator LED. Use the appropriate value for your type LED
- Adjust the trimmer for modulation strenght

Wiring the boards together



Here is the Arcadiator 2.0 board as an example.

- Wire one of the M1 or M2 modboard connections together with one of the M1 or M2 connections on the main effect board. Which one goes to which one doesn't matter.
- Put the other modboard connection to pin 2 on a SPDT (on/on) switch. This switch will allow you to disengage the Modboard.
- Wire the SPDT lug 3 to the other M connection on the main effect board.

Vactrols / LED+LDR

You can either use a vactrol or make your own with a combination of LED+LDR wrapped in shrinktube. Vactrol connections:

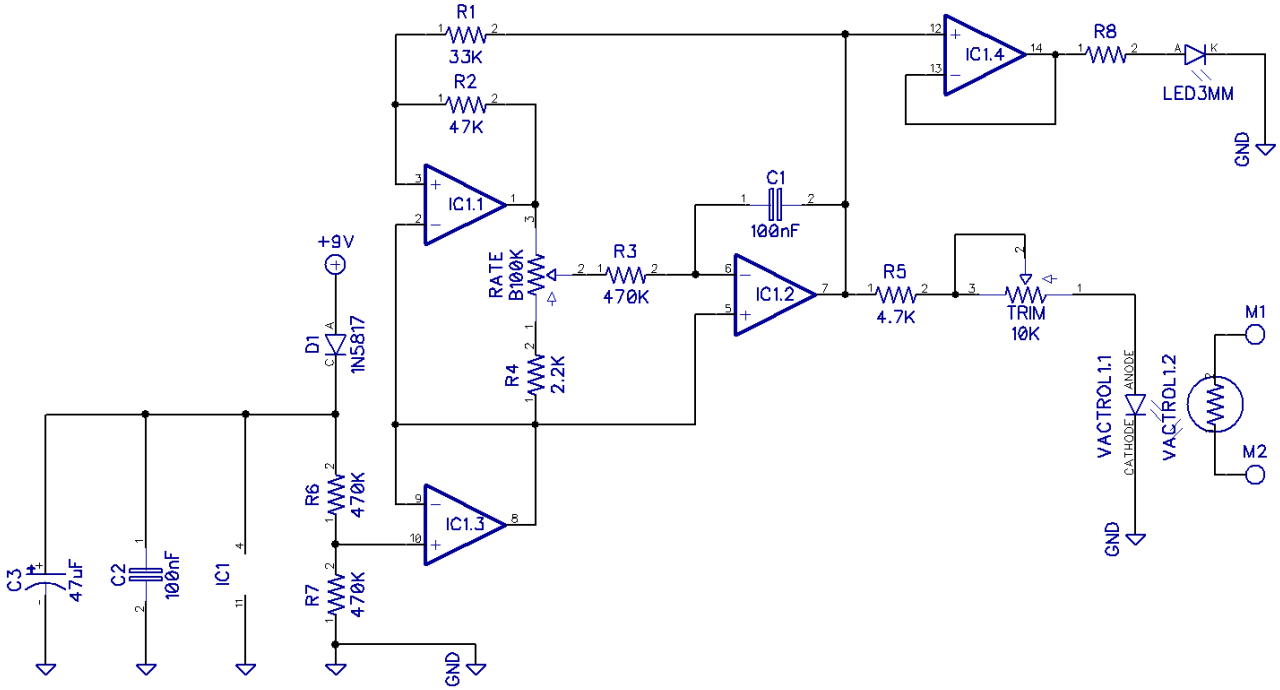
- The top left hole is for the negative (cathode) for the LED side
- The bottom holes are for the LDR side (undirectional)

Vactrol type recommendations

Arcadiator: VTL5C1

This list will be updated when modboard connections are added to other circuits. These are recommendations that I had good results with, but I strongly encourage you to experiment with different vactrols yourself.

Schematic



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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