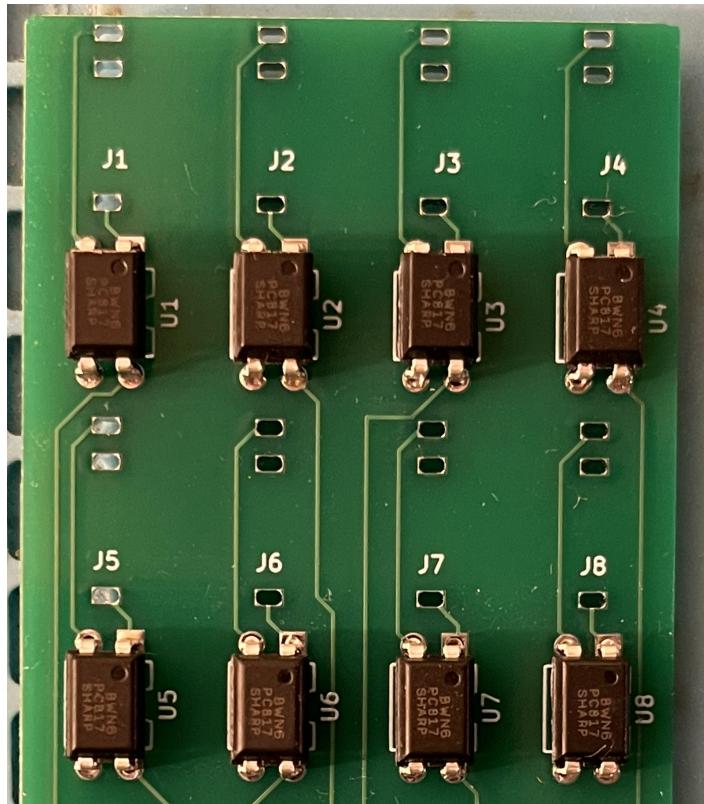


This is the assembly manual for the 1x8NPN Buddy! This is written for newbies to DIY PCBs. For the more experienced among you, this should be no problem and should be up and running in 20 minutes. If you're a newbie, get a cheap multimeter so you can test for which pins of the switch need to be facing down.

1) Solder in all of the ICs. Make sure the little circle indicator lines up with the square through-hole on each one. The ICs should be on the same side as the WRC logo/J1-8 text(shown).

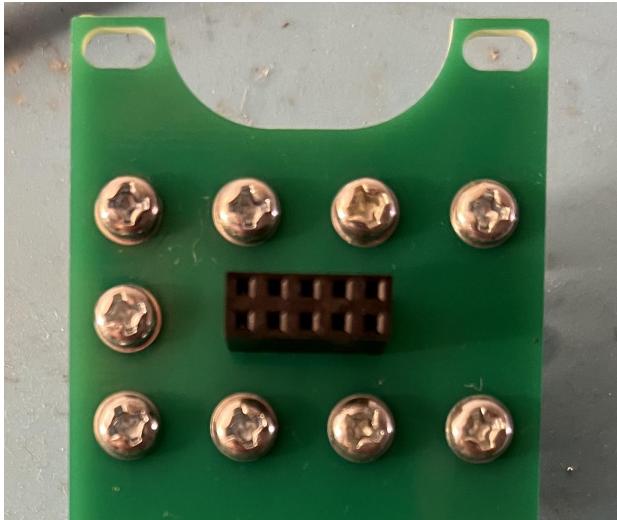


2a) Solder in the 10-pin connector with pins facing up.

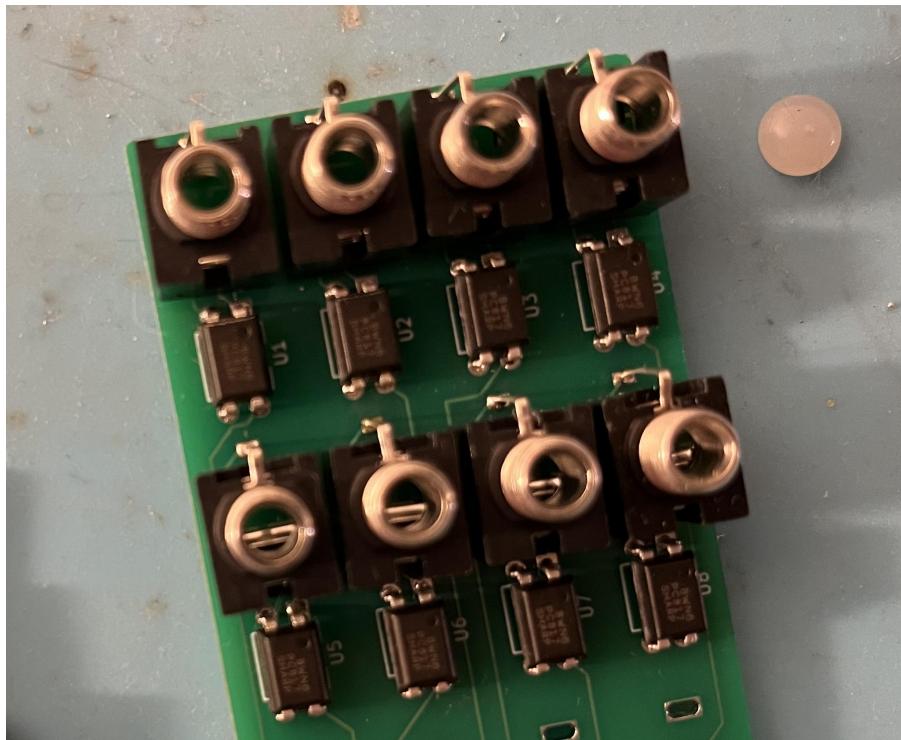


2b) If using the IDC connector method, the 10-pin connector should be parallel to the board away from the ICs. See side profile of 6b for reference.

3) Solder the 10-pin block to face away from the faceplate. This is to connect the main board with the faceplate for using the m3 screws as connectors. (Do not attach the m3 screws yet, this was a photography mistake)



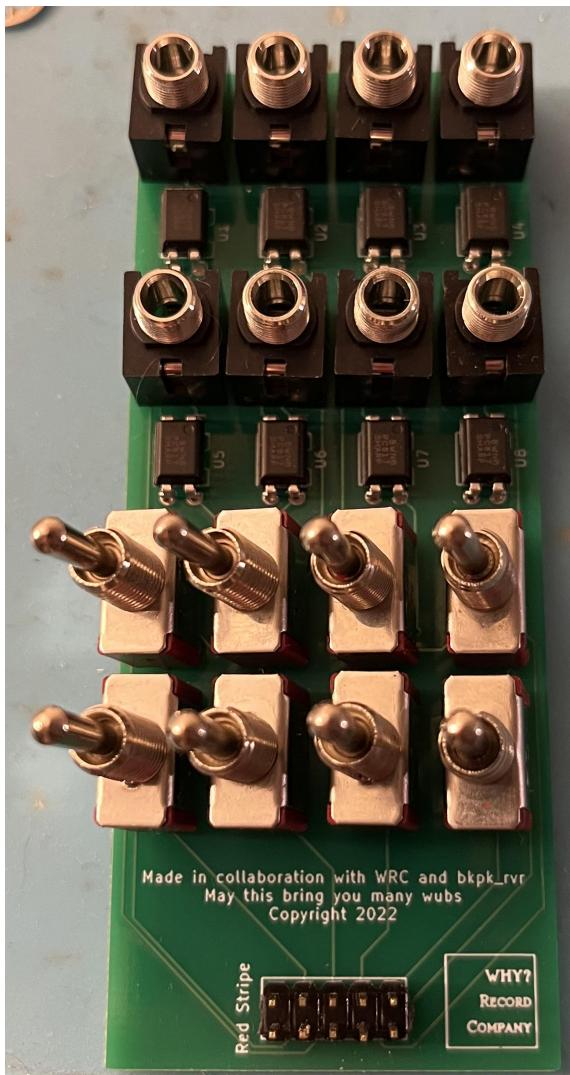
4) Set the jacks, but do not solder yet. The pins of the jacks are asymmetrical and should only go in with the exposed connection facing the top of the module. For the alligator clip method, the 2 10-pins should attach.



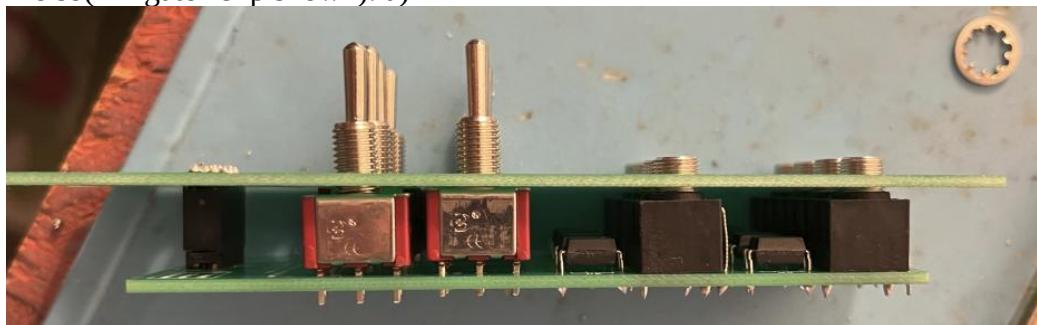
5) Repeat Step 4 with switches. The switches have 2-3 pins. The main connection is made with the bottom 2 holes(the 2 closest to SW#) of each set of 3. It is recommended to get switches with at least toggle. Or you can mix and match between toggle and momentary, you absolute maniac. I bet you have mismatched socks, too.

- If using an on/off switch with only 2 pins, the hole closest to the ICs should be empty.
- If using an on/off/on switch, with 3 pins it does not matter.

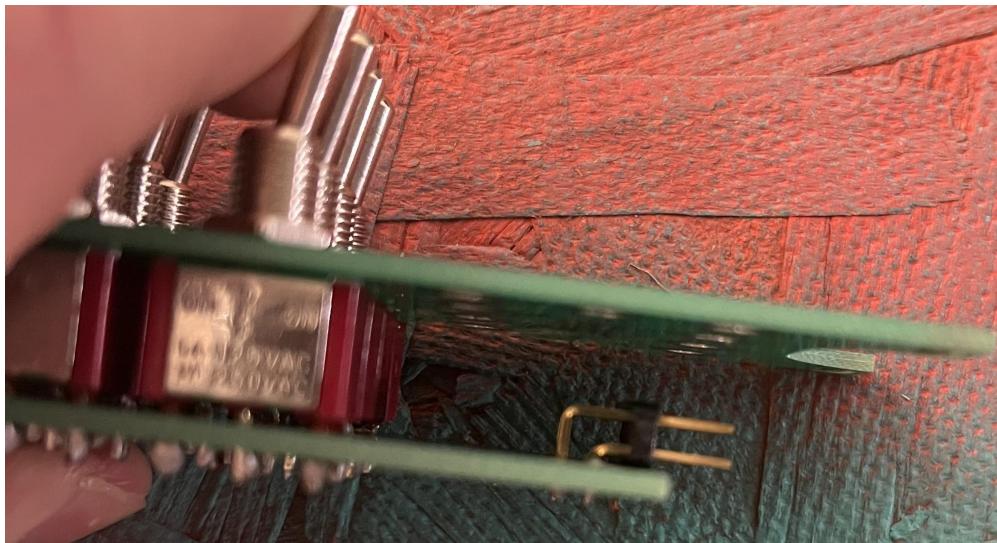
- If this switch is an on/off/(on) (toggle/off/momentary, see Mutes by DivKid/Befaco for a demo), feel free to set your toggle to your preferred direction, then bridge pins 1 and 3 with a small insulated wire for fun performance shenanigans AFTER you have soldered in the switches to the board.



6) Put on the faceplate and solder the connections. It is recommended to use something to prop up the upside down module to make it level. This is being written on 14NOV2022 so US political ads are recommended. Bills that refuse to go paperless are also acceptable. The final result should look something like so (Alligator clip shown): a)



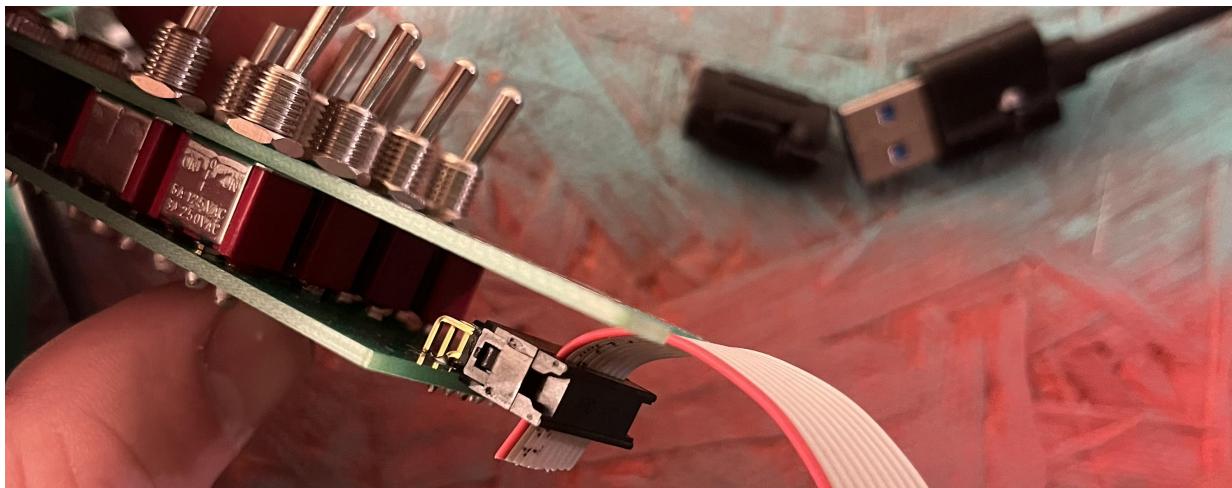
6b) In the case of the Ribbon wire method, this is the final side profile of the 10-pin. Note the asymmetrical nature of the 10-pin.



7) If you are using the alligator clip method, now is when you take off the top and attach the M3 screws for attaching alligator clips. Otherwise attach jack and switch nuts now.

8) For those using ribbon cables:

Make a longer one than you think you need to. Note the orientation of the red wire being on the left of the module. The “red stripe” next to the 10-pin holes on the face plate aligns with this as well just in case.



In general, “velocity” on the L8 is a function of Gate time.

Below is the BOM. The parts are fairly standard with the mostly tayda-based ordering. I've tried to include TME/Mouser links where applicable. Totally go ahead and get alternates if easier for you. I do not claim responsibility for an incorrectly-sourced BOM. All kits will come with a BOM for both options.

Part	Main one I used	Alts
Triggering IC	https://www.taydaelectronics.com/ltv814-ac-input-optocoupler-output-1-channel.html	https://www.tme.com/us/en-us/details/ltv-817/optocouplers-analog-output/liteon/
Switch	https://www.tme.com/us/en-us/details/tsm113f1/toggle-switches/ https://www.taydaelectronics.com/mini-toggle-switch-spdt-on-off-on.html	https://www.taydaelectronics.com/mini-toggle-switch-spdt-on-on.html
Jacks	https://www.taydaelectronics.com/pj-3001f-3-5-mm-mono-phone-jack.html	https://www.thonk.co.uk/shop/thonkiconn/
Ribbon wire	https://www.taydaelectronics.com/awg-28-10-conductor-flat-ribbon-cable-1ft-30cm.html https://www.taydaelectronics.com/idc-socket-connector-2-54mm-2-5-pin.html	Feel free to order pre-fabbed from somewhere else. Thonk sells a variety and get a 10-10 one. https://www.thonk.co.uk/shop/eurorack-power-cables/
M3 screws+nuts	Can be purchased anywhere. I recommend 20mm for the alligator clips.	
Right-angle 2x5	https://www.taydaelectronics.com/2x5-pin-2-54-mm-right-angle-double-row-pin-header.html	Fairly standard, can probably get anywhere.
Female 2x5	https://www.mouser.com/ProductDetail/TE-Connectivity/5-534998-5?qs=xDp7PGUNC%252Bs6ZU%2FXKidt5w%3D%3D	Can probably get anywhere. A 50-pack on amazon might be cheaper than 10 on mouser.
Standard vertical 2x5	https://www.taydaelectronics.com/2x40-pin-2-54-mm-double-row-pin-header-strip.html	Can get anywhere.