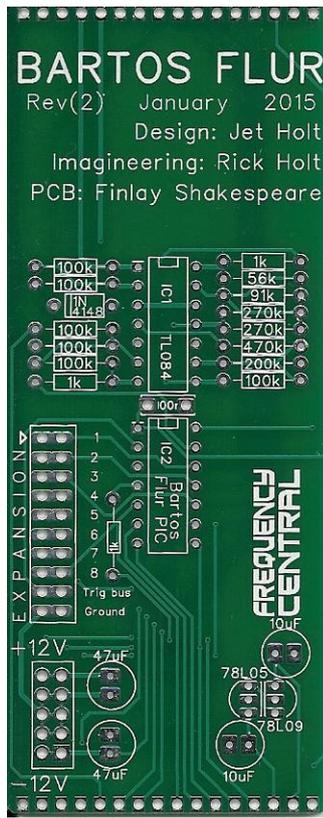


FREQUENCY CENTRAL

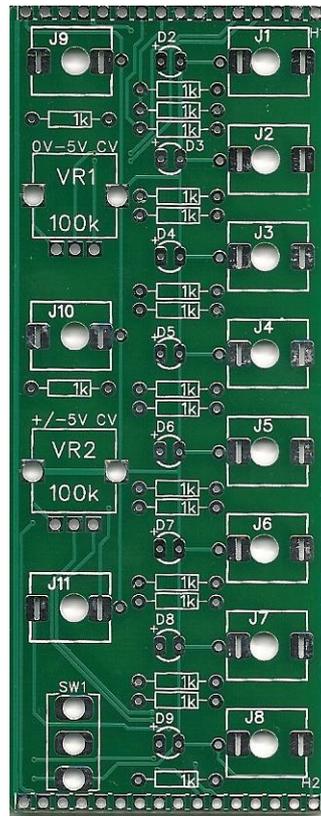
Build documentation for:

BARTOS FLUR REV(2)

Main PCB:

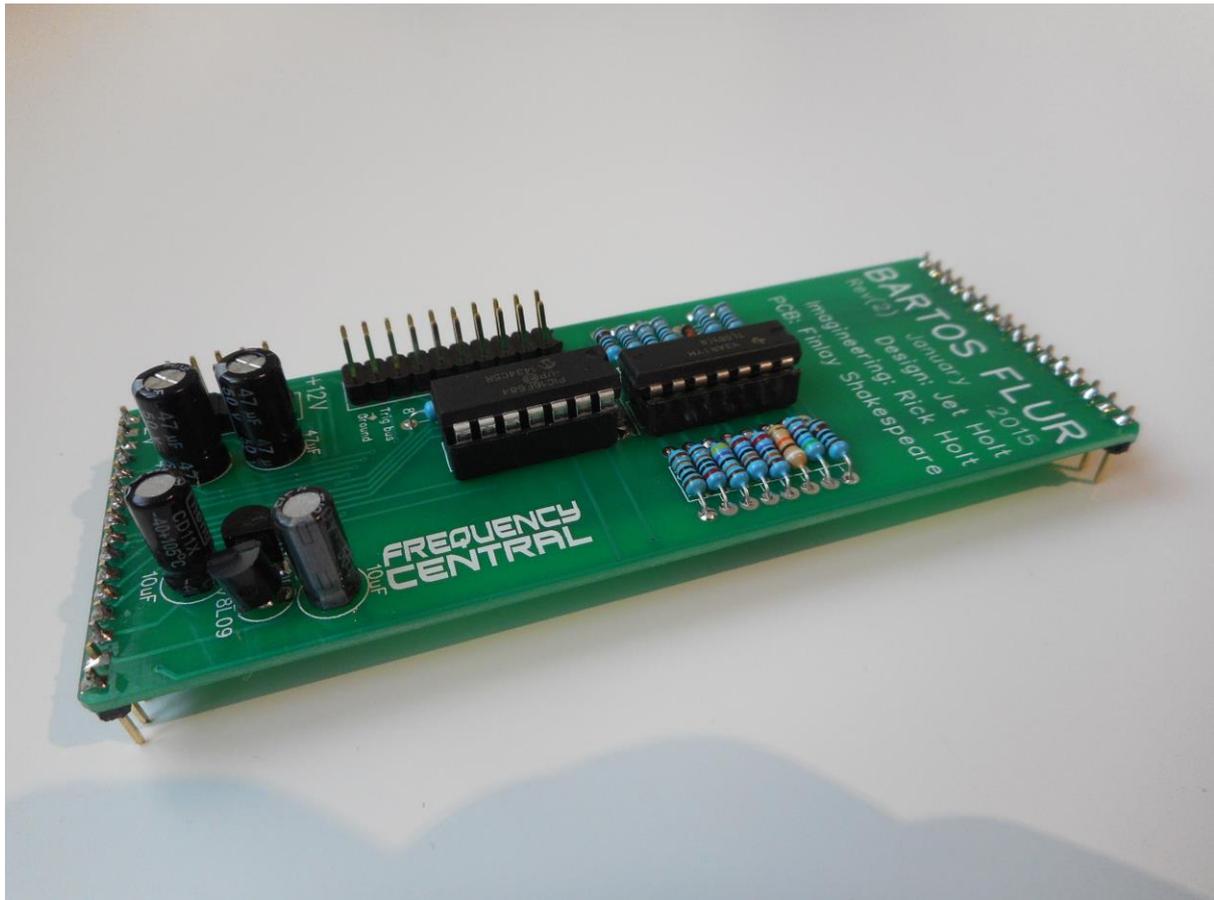


Panel PCB:



Bill of Materials

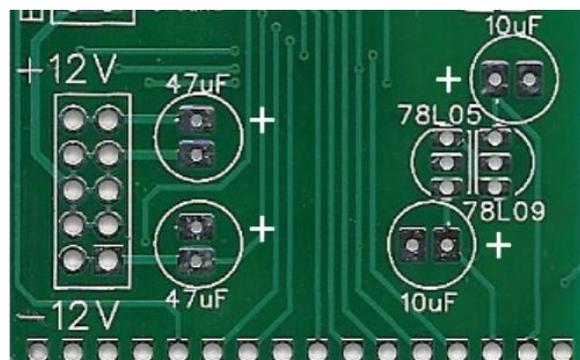
1K x 21	100nF poly box x 1	Bartos Flur PIC x 1	B100K x 2
56K x 1	10uF electrolytic x 2	TL084 x 1	All pots are 9mm Alpha
91K x 1	100uF electrolytic x 2	1n4148 x 1	DPDT Toggle on/on x 1
100K x 6		78L05 x 1	Power header
200K x 1		78L09 x 1	Male header strip
270K x 2		3mm red LED x 8	Female header strip
470K x 1			Kobiconn sockets x 11



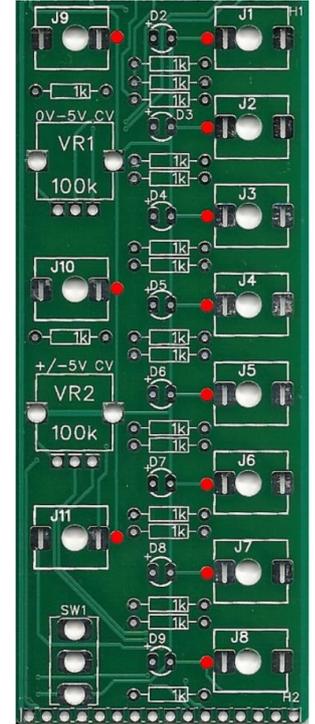
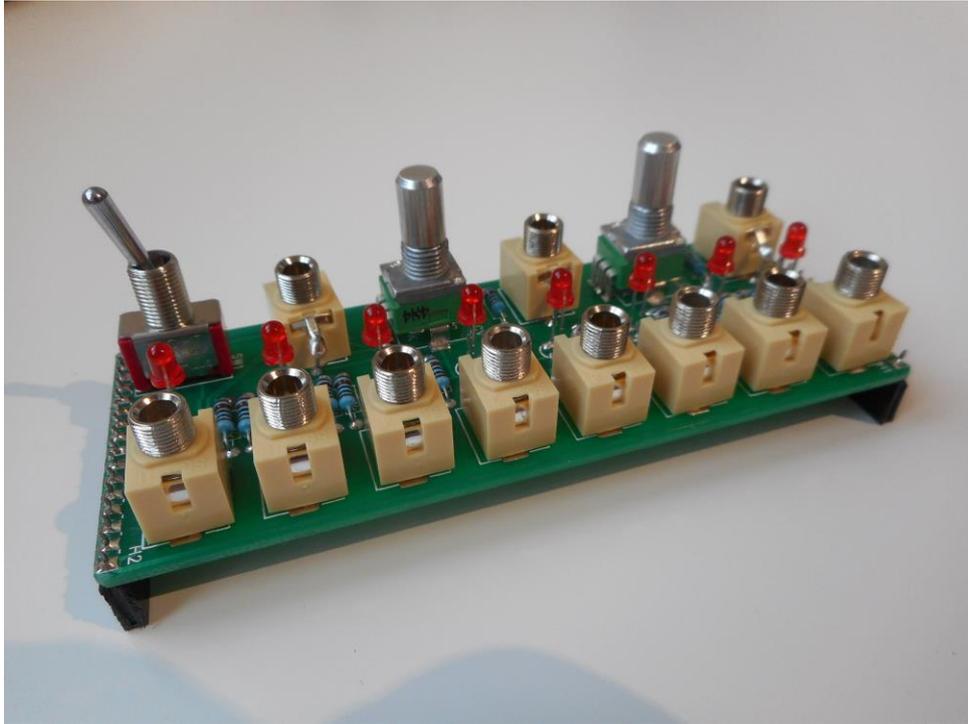
Main PCB

Populate the Main PCB as shown on the silkscreen, starting with the lowest profile components, so:

- Resistors
- IC sockets
- Non-electrolytic capacitors, voltage regulators
- Power header and expansion header
- Electrolytic capacitors - there's an error on the silkscreen, the electrolytic polarities are obscured, see photo:



Finally, cut 2 male header strips to the correct lengths (16, 16) and solder to the PCB so that the long legs stick out of the rear of the PCB.



Panel PCB

Populate the Panel PCB as shown on the silkscreen in this order:

- Resistors
- Potentiometers (bend back the mounting lugs, then solder the middle lug in place. Reflow and adjust as necessary so that they lie correctly. Solder lugs 1, 3 and the mounting lugs)
- Switch. You may want to use the panel to check that the switch is absolutely flush.

Now, place the 11 sockets onto the PCB with their ground lugs pointing towards where the LEDs will eventually go. **Don't solder them in place yet!** Assemble the panel to the panel PCB, put on the pots washers and tighten up the nuts. Now set the sockets to the panel using the nuts, making sure they all sit right. Place the assembly face down and solder the sockets in place. This process should allow a small space to be created between the rear of the sockets' bodies and the PCB, allowing jacks to go in balls-deep (!). Everything should line up nicely now!

Take the whole thing apart, ie remove the nuts/washers and take the panel away from the panel PCB. Now solder solid core (cut off resistor legs) between the sockets' ground tabs and the adjacent ground pads on the PCB (shown as red dots on the image above). There is one ground pad per sockets.

Cut 2 female header strips to the correct lengths (16, 16) and solder to the PCB so that the black parts stick out of the rear of the PCB.

Push the 8 LEDs through their holes, remembering that the long legs go through the holes marked '+'. **Don't solder them in place yet!** Mount the panel PCB onto the panel, tighten up all the nuts – it's worth checking that the LEDs will fit smoothly through the holes before doing this, as some can be a little tight – if needed a scalpel can be used to shave the holes slightly wider. Place the assembly face down, push the LEDs into position and solder in place.

Plug the Main PCB into the Panel PCB...you're done!

<http://www.frequencycentral.co.uk/>

RDH 17/03/15