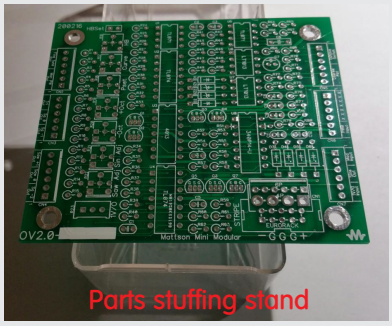
Mattson kit general build notes

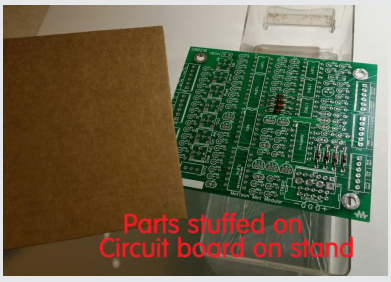

Parts stuffing stand

Construction stand

It helps during constuction to have a stand to elevate the circuit board while inserting components.
A stand will allow the component leads to extend through the pads to allow the component to seat properly.

I use an empty plastic parts drawer. the sides are thin enough to not interfere with the parts and elevates the circuit board nicely.

Flipping the circuit board


Parts stuffed on Circuit board on stand

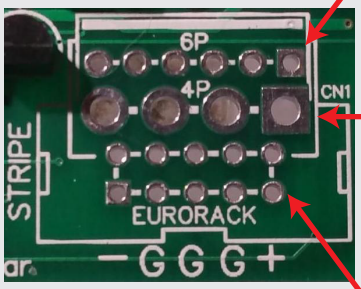

Cardboard covers parts


Flipped onto work bench ready to solder

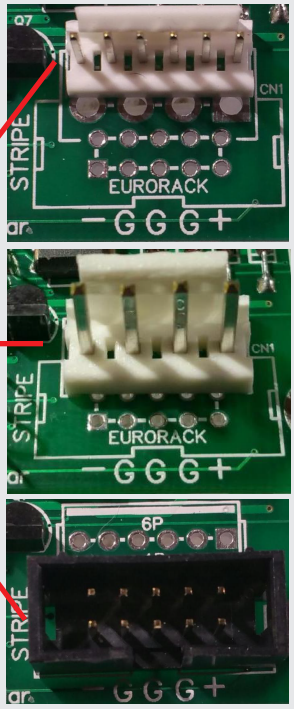
After a number of parts have been inserted into the circuit board, the board will have to be flipped without spilling the parts you worked so hard to place correctly. I cut a piece of cardboard the size of the circuit board, place it over the parts and turn it over while laying it on the work bench.
The build sequence instructions start with the lowest profile components and work to the higher profile parts.

Power options

Choose your power!



Multi-connector power pad



The kits can work on any of the current power "standards".
The only difference in operation is that as the supplied power voltage gets lower, oscillators and clocks will cycle faster.
It's like bouncing a ping pong ball between the paddle and the table. The closer to the table the paddle gets, the ball bounces faster between the paddle and the table.
Think of the paddle as the supply voltage, the table as ground and the ball as the produced cycling waveform.

We've created a power pad that will accept a 6-pin, +/- 15V connector (Dotcom, MMM), 4-pin +/-15V power (most 5U) and the 10-pin +/-12V power connector. (Eurorack).

The polarities are clearly marked. Eurorack uses the power ribbon stripe on the -12V side of the connector. The header is keyed and the stripe location marked.