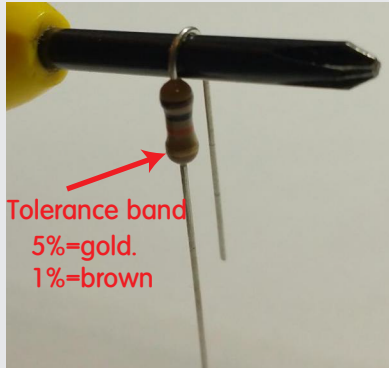


Mattson VCO 2 DIY Board assembly

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A word about resistors

Because of the board density of this project, the resistors are all end mounted on the PC board. As mentioned in the builder notes, it helps to use a small screwdriver shaft or pen cartridge to use as a bending jig.

I like to bend the lead furthest from the tolerance band end so that all of the resistors face the same direction. When mounted tolerance-band-down, it makes it much easier after construction to scan the resistor values from the top-down. It really hurts trying to adjust to reading them when the orientations alter randomly. Of course, the electrons don't care what direction they face.



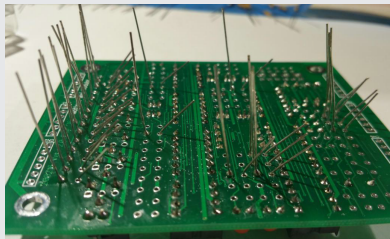
The resistor silkscreen has a circle where the base (tolerance band) is placed and a small resistor symbol pointing toward the associated pad for the bent lead.

The resistor reference number is usually above the silkscreen symbol.

There are 71 resistors in this project.

I have broken them down into 3 groups. Two groups of 24, 5% resistors and a group of 23, 1% resistors.

You may wish to break it into smaller groups prior to soldering if it makes the task easier for you.



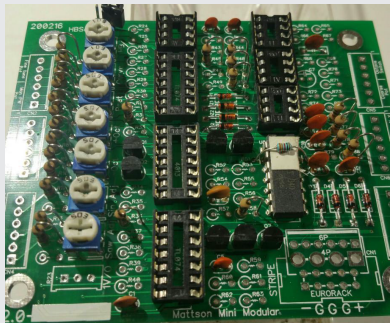
After stuffing a group of resistors, I bend the short leg at an angle to hold the resistors onto the board.

This also gets them out of your way, allowing you to solder all of the longer legs. It makes it easy since they're in neat rows.

After soldering the long legs, I clip the soldered leads, turn the board over and check that they're all seated against the board. (reflow while pushing on the resistor to re-seat).

Then, I line up the resistors neatly before soldering the short legs. Only because I'm OCD about it and it looks prettier...

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Resistors 5% group 1

Look at the BOM and place the Group 1 resistors in their proper space. Solder as above. Or, however you usually do it.

The picture shows the PC board with the Group 1 resistors installed.