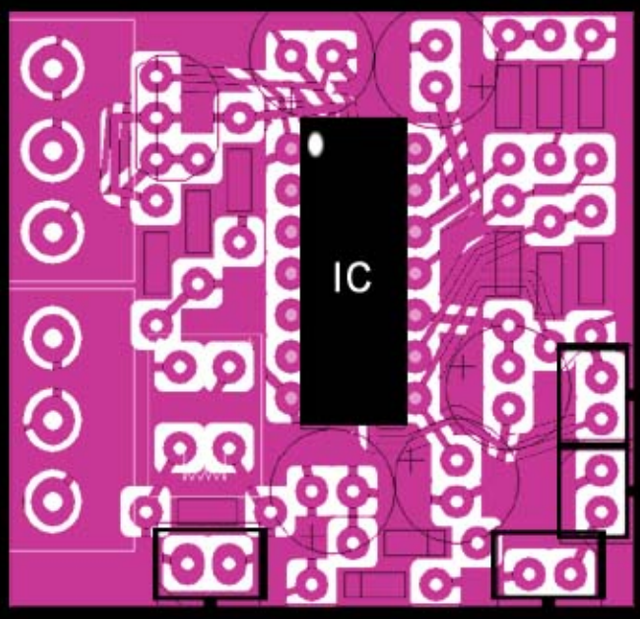
the TREMBLE

the tremble is another potentiometer replacement but this one is both squarewave and switchable to pseudo-random slightly controllable chaos with a starve feature. it is a wide range variable rate squarewave LFO with 3 more LFOs on board that have a fixed rate and they are used to make the pseudo-random result when mixed together. the LFO feeds the LED side of a vactrol and the variable resistor side of the vactrol is available to you via two holes on the board. you can attach the variable resistor pins to any place you would normally use two pins of a pot and use the tremble to modulate the resistance. i also included a section on the board for you to insert an additional limiting resistor for applications where the full range will be overkill, if you like you could also use a pot there for more control. vactrols by nature are not perfect so they will vary from device to device by small amounts. on average when using a 9V power source the general resistance sweep is between 0k to 800k / 900k and this is adjustable over a 3M range using the depth pot. which means you can choose to modulate 0k to 800k or sweep the depth pot and modulate the 2.2M to 3M range. also using different voltage power supplies will increase or decrease the resistance range respectively. so please take that into account. 9v recommended.

the starve can be any value but 1m in most cases has the most range. with some applications that starve may seem to have little effect. in this case you can short across the diode that follow it and increase the starve effect. they are only there to keep you from attaching the power supply backwards so one you are sure of that they have no purpose and lower the voltage to that circuit.

top view



power supply range from 3 volts DC to 15 volts DC

current required - less then 1ma

length and width dimensions - 1.6" x 1.5" or 40mm x 38mm

height dimensions - without pots 7/16" or 15mm / with pots 15/16" or 24mm

top view

pot wiring for passive volume control - input and output labels are for the pot not the device - any value will work but 100k works best for me in most cases - experiment

http://thesquarewaveparade.com/tremble.html