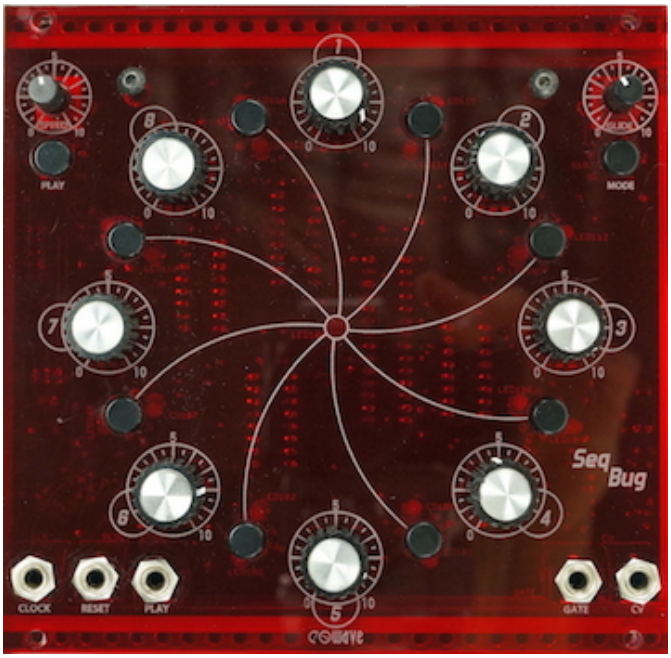


If you have any questions about the mounting process do not hesitate to contact me at info@eowave.com

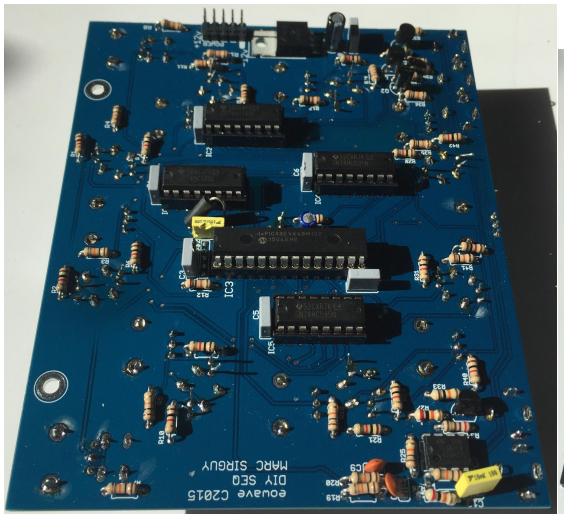
This kit is not for beginners, you should have soldering skills and you must know in which direction to put ICs, LEDs & capacitors

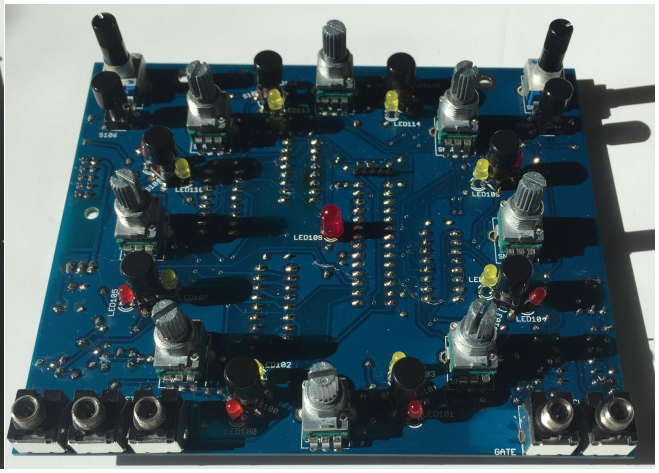
Eowave bears no responsibility for mistakes that are made during the assembly process, or for damage caused to components if they are not soldered correctly. Read the instructions carefully before starting to solder. Use the pictures to verify the placement if you have doubts.

Google ‘resistor calculator’ to work out resistor values from the col,our bands, or better yet use a multimeter

Glue the caps on the switches (the best method is to use hot glue so you don’t have to wait, otherwise you can use superglue)

Components will take place on 2 sides of the board, the components on one side, the LEDs and mechanical parts on the other side as follows

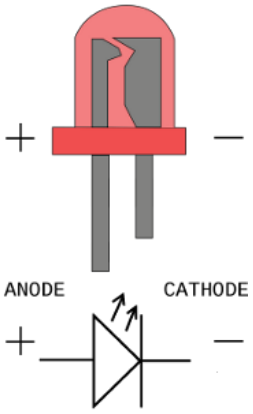




Component side

mount and solder in the order of the BOM on the following page. Somer additional notes;
- all the resistors
- ICs (use the socket for the main IC on IC3) do not put the IC (DsPic) into the IC3 socket before you do your first electrical test
- smaller capacitors
- transistors
- power connector
- large capacitors (C7 and C11)

Hardware side



mount and solder in this order:
- the LEDs - **be careful with the LED orientation, the longer positive leg goes into the wider end of the triangle marked on the PCB**
- mount each LED about 2mm from the board
- use one colour for the inner circle, use the other colour for the outer circle
- the big 5mm LED is for the center LED
- once the caps are glued on the switch, solder the 10 switches
- mount the mini jack connectors
- end with the potentiometers
- the 2 pots in the corners are the plastic shaft potentiometers

Tests

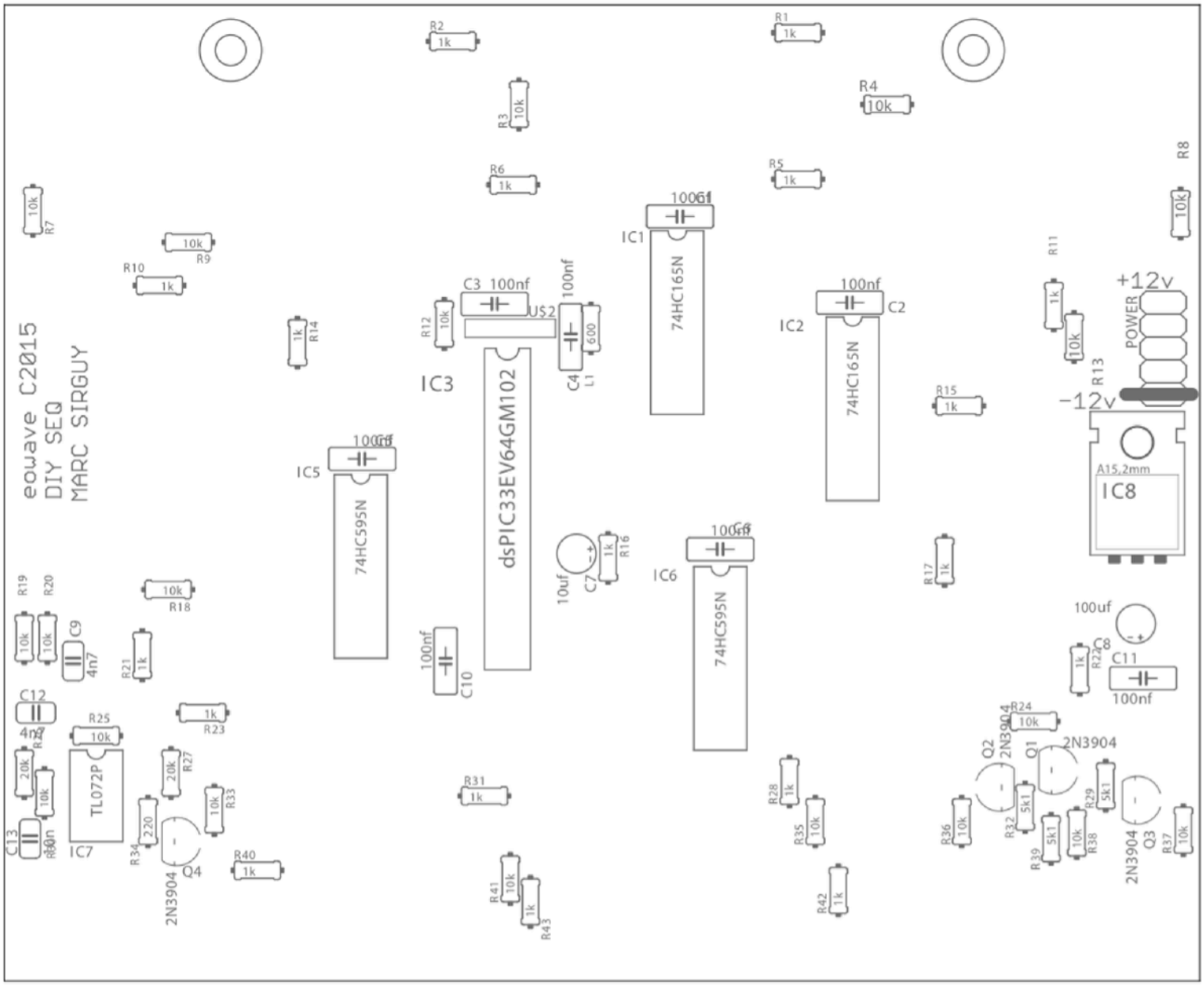
Once all components are mounted you can perform an electrical test before you mount the IC (DsPIC)
Connect the ribbon cable to the power connector noting the orientation, power the unit from your eurorack case. Measure the voltage on pin 27 and 28 of IC3 socket, you must have a 5V reading. If yes; disconnect from power and plug the DsPic on the socket. If no check your soldering.

Now you can make tests before mounting the front panel;
CV LED's should light up, try each gate switch
The center LED only lights up if a GATE is activated
Check the outputs are sending trigger/CV

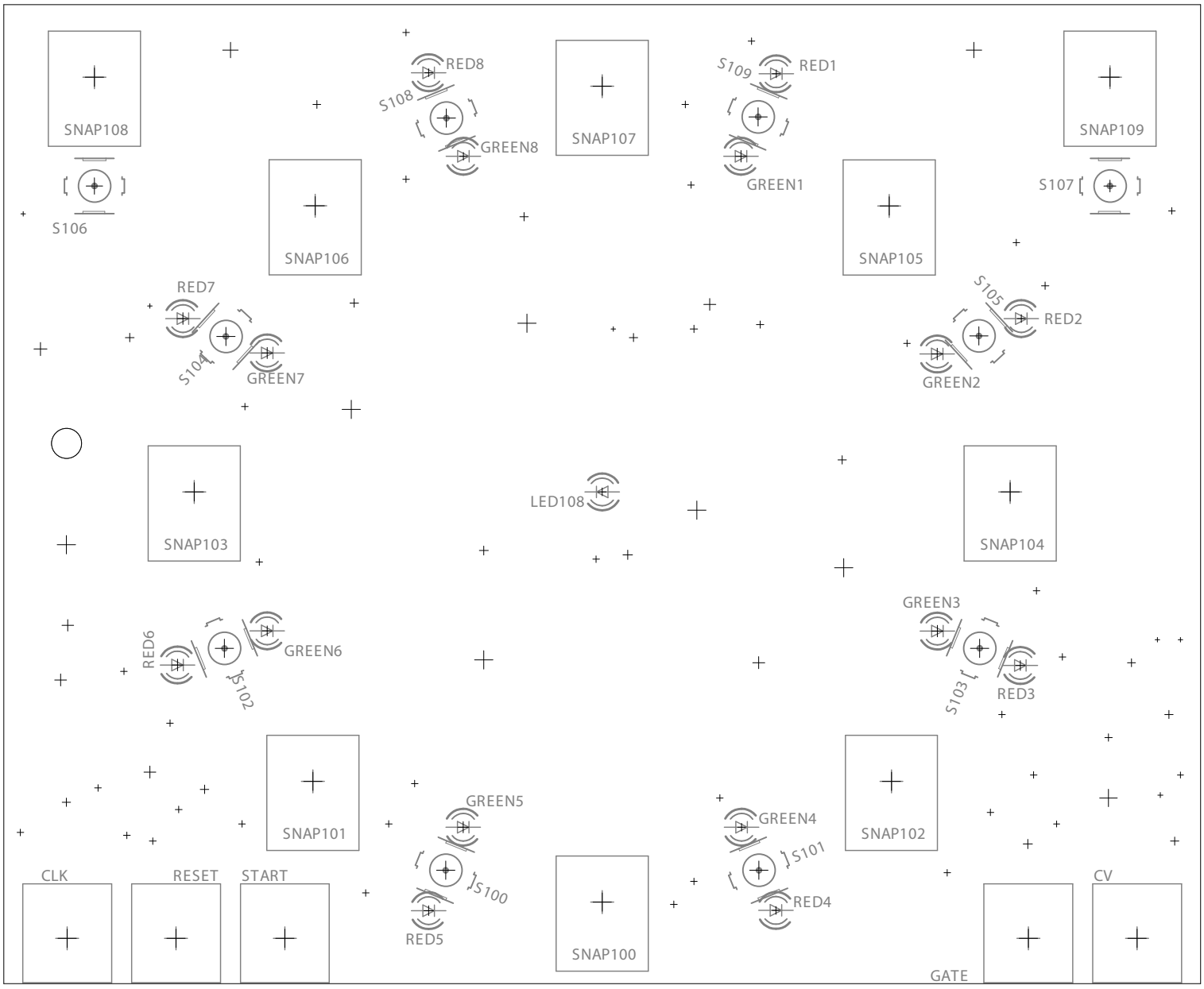
Part List

Resistors			
1	220		R34
18	1k		R1, R2, R5, R6, R10, R11, R14, R15, R16, R17, R21, R22, R23, R28, R31, R40, R42, R43
3	5k1		R29, R32, R39
19	10k		R3, R4, R7, R8, R9, R12, R13, R18, R19, R20, R24, R25, R30, R33, R35, R36, R37, R38, R41
2	20k		R26, R27
1	10	Black resistor	L1
IC			
1	TL072P/TL082		IC7
2	74HC165N		IC1, IC2
2	74HC595N		IC5, IC6
1	28 pin socket		IC3
1	dsPIC33EV64GM102	Install after test	IC3
Caps			
2	4n7	Marked 472Z	C9, C12
1	10n	Marked 103	C13
8	100nf	Marked 104	C1, C2, C3, C4, C5, C6, C10, C11
Transistors			
4	2N3904	Check orientation	Q1, Q2, Q3, Q4
1	LM7805	Flat side to PCB	IC8
Header			
1	PINHEAD		POWER
Electrolytics			
1	10uf	Negative leg shorter	C7
1	100uf	Negative leg shorter	C8
LED			
8	8 RED	Use diagram for polarity	RED1, RED2, RED3, RED4, RED5, RED6, RED7, RED8
8	8GREEN	Use diagram for polarity	GREEN1, GREEN2, GREEN3, GREEN4, GREEN5, GREEN6, GREEN7, GREEN8
1	1 5MM RED	Use diagram for polarity	LED5MM
Switches			
10	SWITCH		S100, S101, S102, S103, S104, S105, S106, S107, S108, S109
10	SWITCH CAPS		
Jacks			
5	301S-MINIJACK		CLK, CV, GATE, RESET, START
Pots			
8		Metal	SNAP100, SNAP101, SNAP102, SNAP103, SNAP104, SNAP105, SNAP106, SNAP107
2		Plastic	SNAP108, SNAP109

Component side



Mechanical part side



Using the Seq 8

You can find an instructional video on how the modes of the Seq 8 work on the Eowavr youtube channel

Inputs :
Clock in
Reset in
Play in (hi level will stop the internal clock sequence)

Outputs :
CV out switchable between 0-5 V & 0-10V
Gate out 0-5V

10 switches (8 steps, Start/Stop, Mode select)
17 LEDs
10 Potentiometers (8 CVs for step 1 through 8, glide time & clock speed)

The Mode switch allows you to select 6 different modes
Each switch press cycles to the next funtion, as described below

1. GATE ON/OFF (outer circle LED)
2. SLIDE ON/OFF (inner circle LED)
3. RESET (the 2 LEDS are blinking)
4. REPEAT : the switch has 4 positions (it sets how many times each step is repeated. 1 (no LED)- 2 (outer circle LED) - 3 (inner circle LED) 4 (both LEDs)
5. DIRECTION 1 forward, 2 backward, 3 ping-pong, 4 random switch, 5 set the voltage to 0-10V
6. SCALES , 7 different scales are possible:
    1 no scale
    2 chromatic
    3 major
    4 minor
    5 pentatonic major
    6 pentatonic minor
    7 major chord (I III V)
    8 fifths (I V)