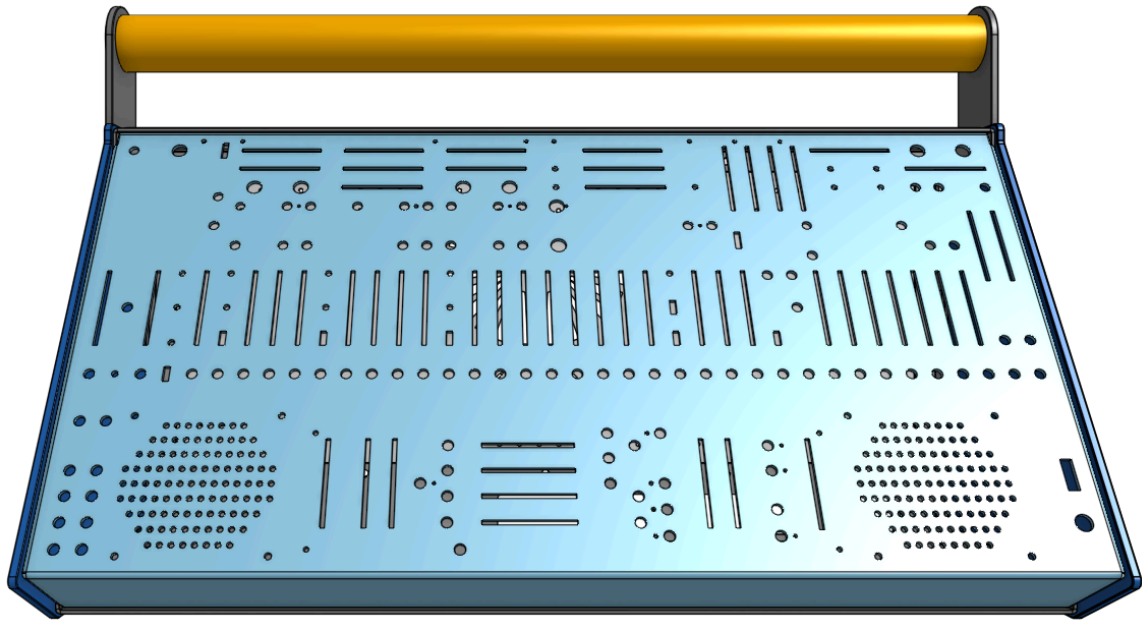


# Introducing...

# Enigma



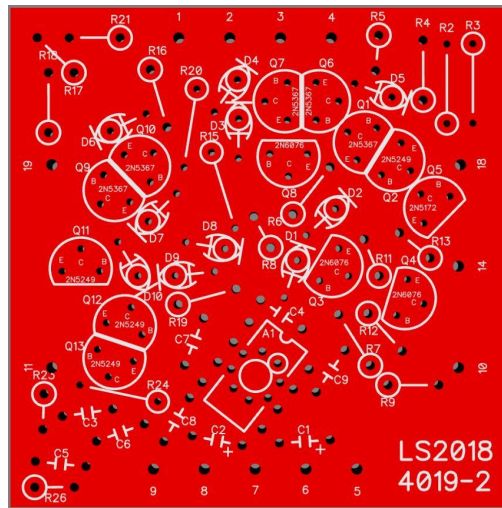
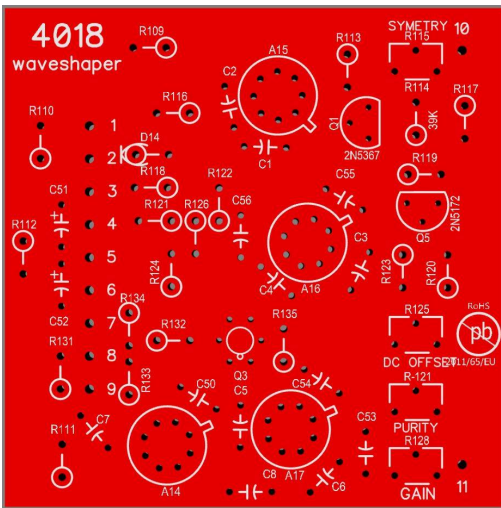
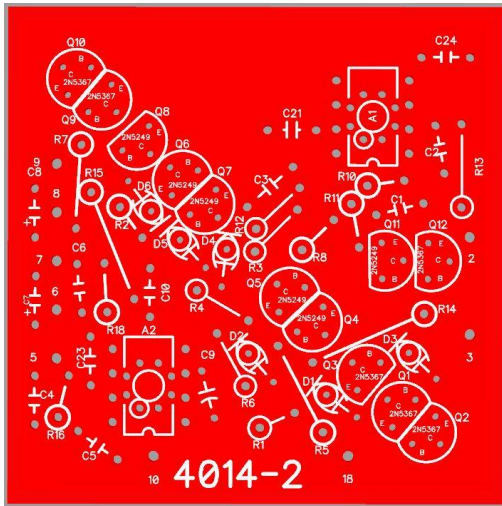
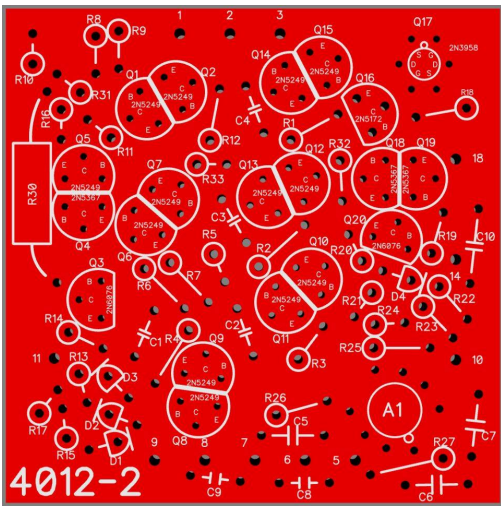
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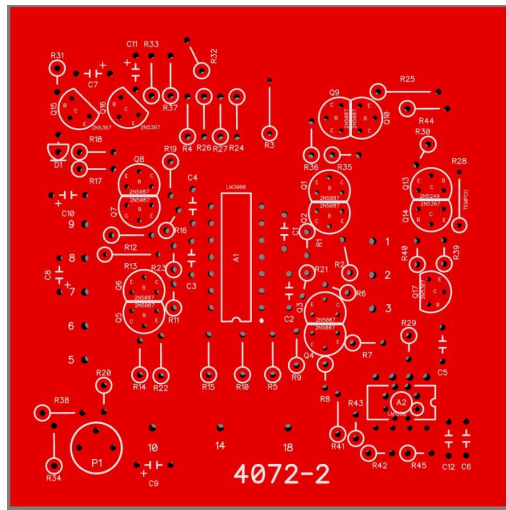
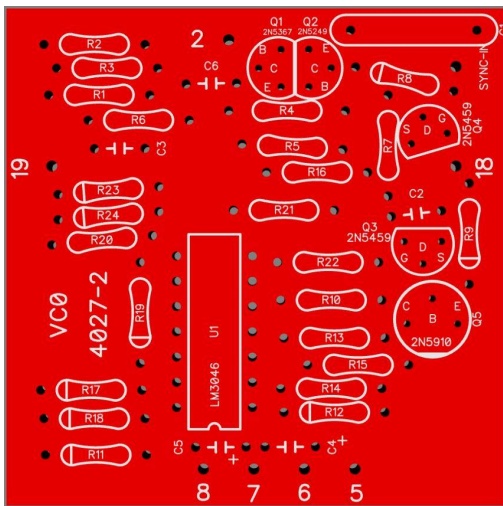
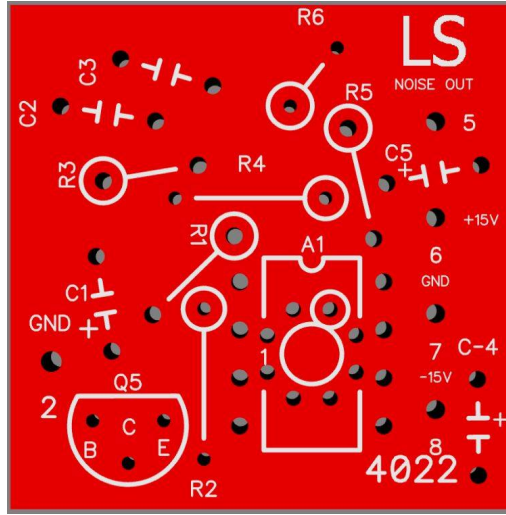
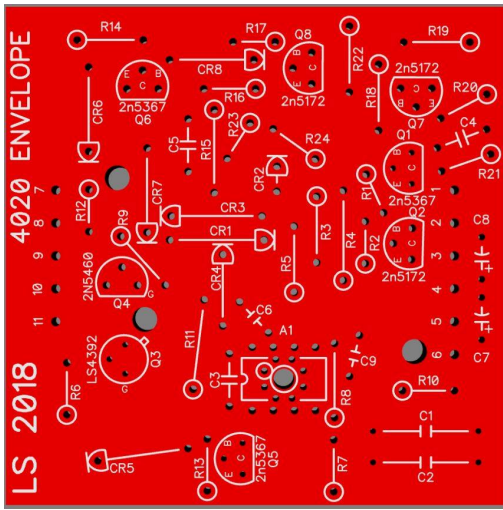
LOGAN  
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# WHAT IS ENIGMA?

Enigma is a semi-modular synthesizer based on the iconic semi-modular synthesizer from the 70s and 80s. We've reduced the size of the synthesizer similar to another DIY creation that has been out for a while – but NONE of that synths' circuits. This synthesizer uses the actual sub modules and circuits of the original synth with new controls, it's unlike anything else that has been attempted.

The sub modules are authentic replications and can be used to service vintage machines. These small PCBs are the heart of the system and MUST be right to achieve the exact sound characteristics. We've meticulously re-created these sub modules with the pinouts for the original transistors and Op Amps.





\*\*Not shown 4015-2, board 5 sub modules, panel PCBs

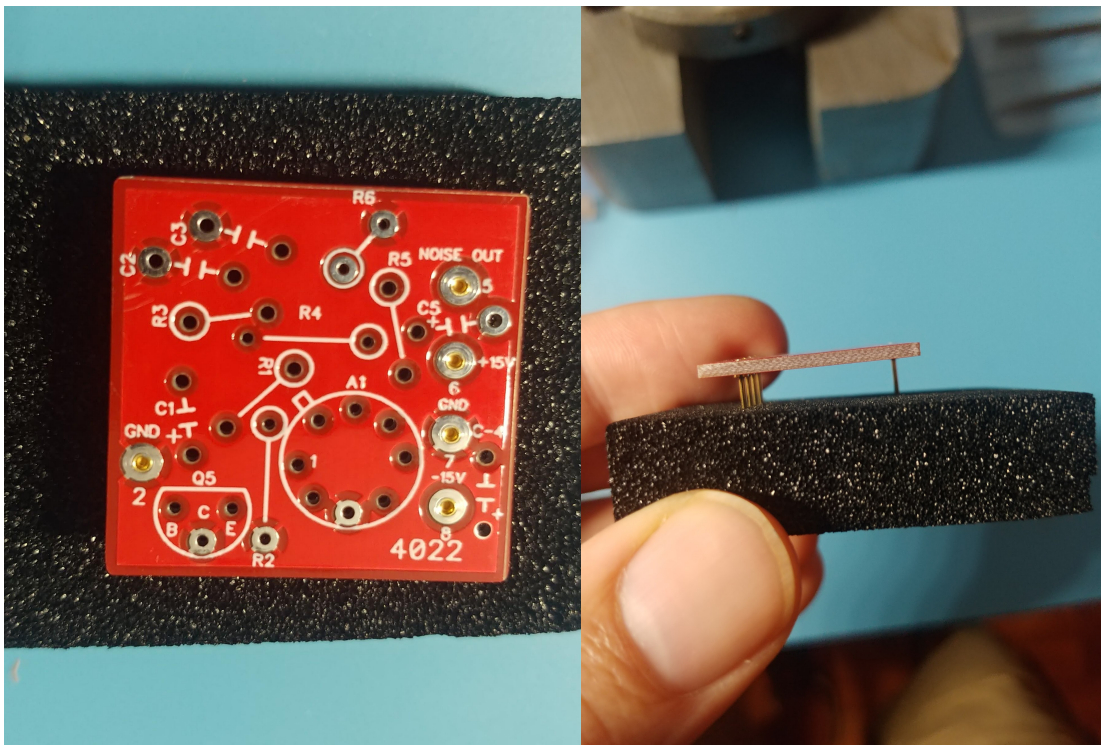
## REPAIR YOUR EXISTING SYNTH OR DESIGN YOUR OWN

Are you looking for a higher-quality, more affordable alternative than what's currently available for broken sub-modules in your synthesizer? Do you design modules yourself? If so, would you like to use Enigma sub-modules in your designs or repairs?

Our sub modules will be available separately from Enigma. They are the same size as the original sub-modules and work in the original synthesizers. Gone are the single layer sub-modules with weak traces and pads. These are four layer PCBs with a brand new solution for securing the sub-module to the motherboard.

The PCBs are professionally pressed with Mill-Max gold plated Swage pins for a strong mechanical bond:

4022-2 sub module





## **OSCILATORS**

- All of the oscillators will be VCO 2, which means each oscillator will have (1) 4027-2 module and (1) 4018 Waveshaper module.
- All oscillators have rolling sync – you can sync ANY waveform to any other waveform on another oscillator.

## **FILTERS**

- Enigma will have both the 4012 & 4072 available to use *at the same* time. No more swapping filter sub modules like previous attempts.
- A high pass filter has been added to the filter that can be turned on or bypassed via a switch. When switched on the high pass filter is in series with the low pass filter.
- Resonance CV has been added to the filter
- Enigma will have 5 Mother boards just like the original. Board 1 (RM/Pre Amp), 2 (Oscillators), 3(Filter), 4 (Envelope/VCA/Mixer), 5 (Voltage Processor, etc.). This will make building and troubleshooting MUCH easier than just one giant board. We are also designing a sub module testing PCB that can test each sub module. If you build for others, this should speed up multiple builds at once.

## **Envelope Generator**

- A 3-way switch has been added to operate the envelope generator at .5X speed, 1X speed, and 10X speed.
- Inverted output has been added to the ADSR & AR
- We've designed our own gate booster that works correctly with a 3620 keyboard or two notes with a MIDI keyboard.

## **REVERB**

- Enigma has been upgraded with dual reverb tanks allowing for true stereo reverb.

## **PSU**

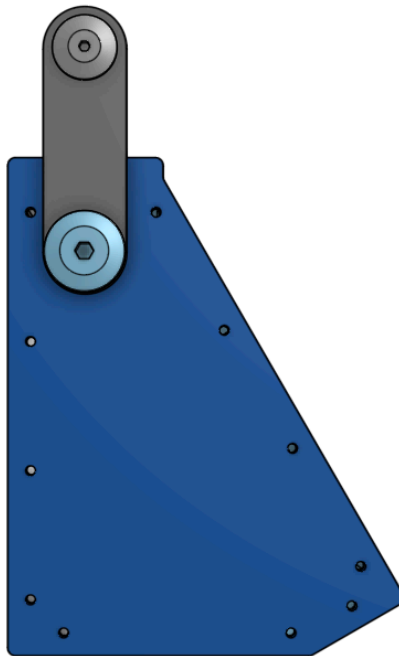
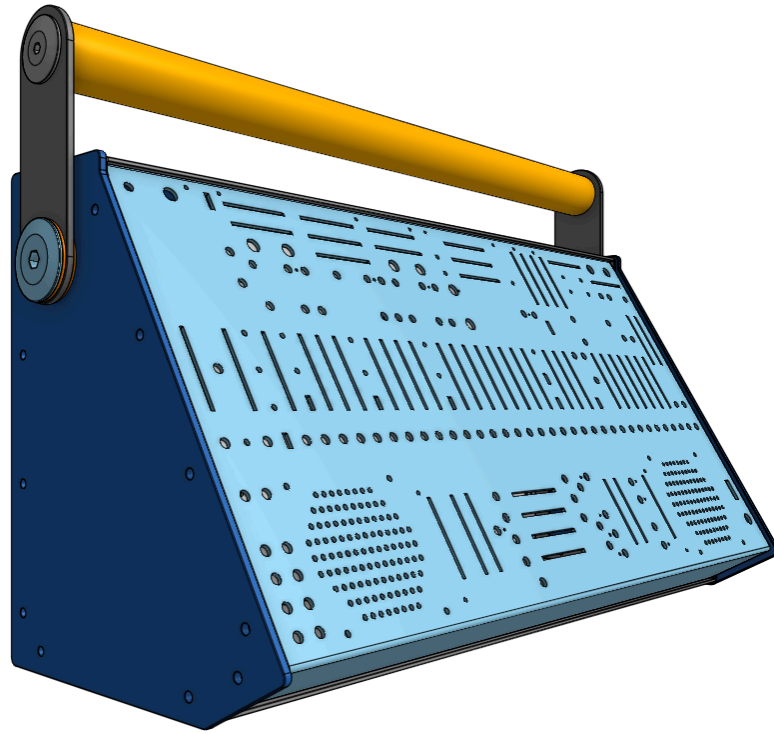
- David comes with its own PSU PCB that holds two power supplies. One for the analog circuits and one for the LEDs.
- The PSU is designed to work in ANY country and connects to an outlet with any standard IEC power cord.

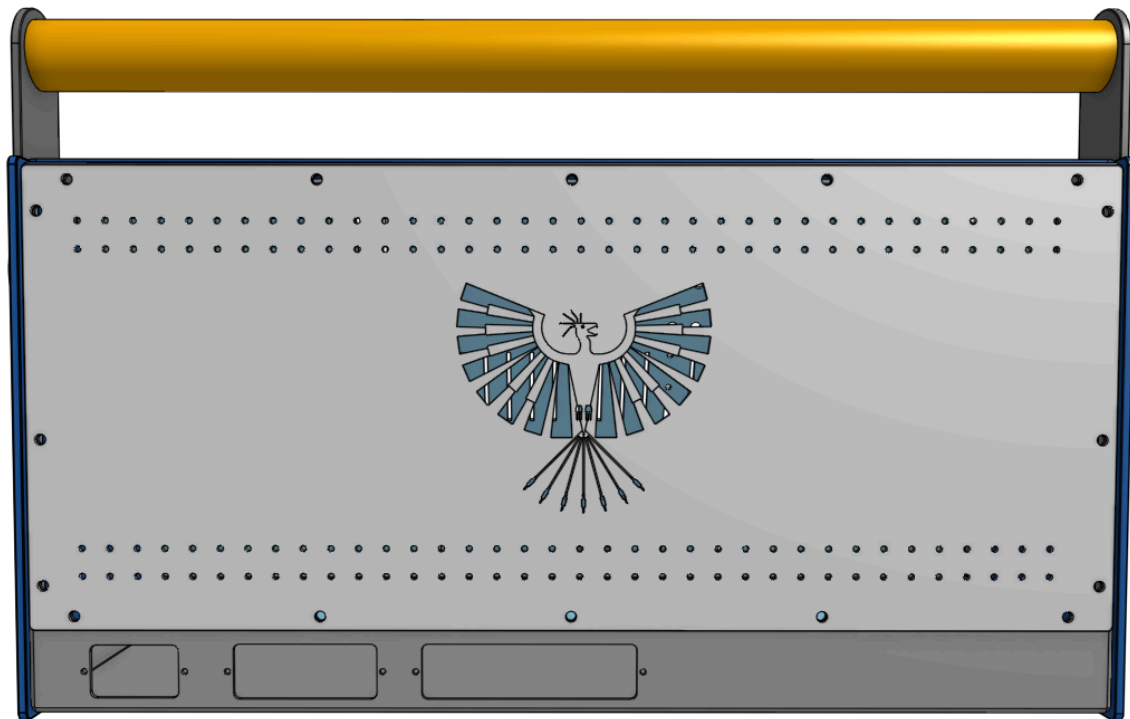
## **LEDs**

Enigma has a new LED string design. You can put ANY color LED on ANY slide pot ANYWHERE in the system.

## CASE AND PANEL

We were inspired by the original case of the synth, so ours pays homage to it with an updated and improved design. The handle is adjustable and removable.





There are 3 cutouts on the back panel. One is for the IEC socket. The two larger cutouts are for upgrades/expansions to your Enigma. The first is for a MIDI panel. The second is for Sowter transformers / XLR outs.

## **Panel Color**

Panel Color is not decided yet. But for Alpha builders we are looking into custom colors. We do know that Enigma will not be Grey with white lettering, and it will not be Black with Orange boxes and White writing.

## **DIY**

Enigma will be offered in DIY format. Enigma will be a nice easy build. NOTHING about this build is complex. We are even designing pre-matched transistor PCBs that fit in the same footprint as the original matched transistors.

We have builders ripping through David - building complete working oscillators in hours. There is volume to Enigma because there are roughly 24 PCBs.

Volume  $\neq$  Complexity - If you make a mistake, would you rather debug one giant board with almost all of the parts on it or debug separate modules?



PCBs for Enigma will cost \$710. The case and panel, although not priced yet, should be roughly about \$400.

We are offering the speakers we spec'd for Enigma – so no speaker hunting. We have chosen a nice 3", 32Ω speaker. We are offering the reverb tanks as well.

After all of your expenses we estimate that Enigma should be in the \$2000 range depending on which parts you select. Alpha builders have to source their own parts – except for rare parts. We have a complete kit for that.

Almost all of the sub modules have dual footprints so that you can use the LM301 dip, or the higher grade Lm101 can package. Build decisions like this will ultimately decide how close a builder gets to our estimated outlay.

After Alpha phase is complete and there are no more changes/upgrades, we **will** offer complete DIY kits to build Enigma. They will be available from our online store. No component hunting necessary, everything you need will be in the box - except solder, tools...you know what we mean!

## **FULLY MANUFACTURED**

Not into DIY? We have two options for you:

1. There are several builders building David and Enigma for other folks who want to be a part of Alpha. This grants you entry into Alpha even if you can't build!
2. Enigma will be fully manufactured by Polyfusion (YES! That Polyfusion) in the Buffalo area of New York after we sort out retail DIY kits.

We plan to continue to offer Enigma in DIY format after the fully built ones come to market.

## **WHY ALPHA?**

When people join our Alpha groups, they have access to DIY projects that the general public will not. After David Alpha and Enigma Alpha reach their limits for entry, we are closing the groups. And after about 2 more projects we will no longer create NEW projects for DIY. We will continue to sell current DIY projects, we just won't release anything new to DIY...except to our Alpha family.

One of the major projects we are doing next year is the big brother, the 25xx. That will be a retail synth only. But for those that built Enigma Alpha or David Alpha – they will have the opportunity to build it DIY. That's only about 80 people.

There were 30 spots open when we opened the Enigma Alpha group. The number has since been getting lower and lower.

## **MORE INFORMATION**

For more information find the public **Logan Soloman** group page on Facebook, or email at [logansolomansynths@gmail.com](mailto:logansolomansynths@gmail.com). Currently the groups named, DAVID ALPHA and Enigma ALPHA are closed to the public, but searchable.

