

# Simple CV

## Introduction

Digital created LFO+ENV with CV-Output. No Displays, No Menues, Minimal buttons, much Scopes, much Led-Ring-Rotarys (Planned for LRE-8x2CS), one big UI with complete functions for one LFO+ENV Voice... switching between the UI-Voices is done from the BREAKOUTMODULES...to this later

LFO+ENV are mixed together softwareside, to use only one CV-Output. 8xCV-Outputs (VOICES) are supported > if u are on a VCF+VCA-Setup = 4 Voices on the Analog-Side (4xFilterbank) Copy Paste for LFOs and ENvelopes between the Voices. Copy Paste for a Songa aka Preset aka Bank aka Program(change) Roland MC303 Style Pattern load (next Preset Display) + Preset Morph between Current-Preset and Next-Preset.

Breakoutmodules for each CV-Output, with Depth-rotary, Focusswitch (Pushrotary), 2x Scopes (LFO+ENV) and LFO/ENV-Switch to show on one Display the Mixed Waveform & to switch the Rotary to "ENV" or "LFO" Mode...(there is only space for one Encoder) The Depth-rotary has no Ledring, want to display it as a bar in the scope...

Whole thing will not be based on Midibox CV... i will copy code snippets and so on, but there will be not compatibility to MB-CV (such big Software i cant understand)

## FrontPanel

### General Design

The panel size is 3U, Eurorack compliant

### FrontPanel

### PCBs

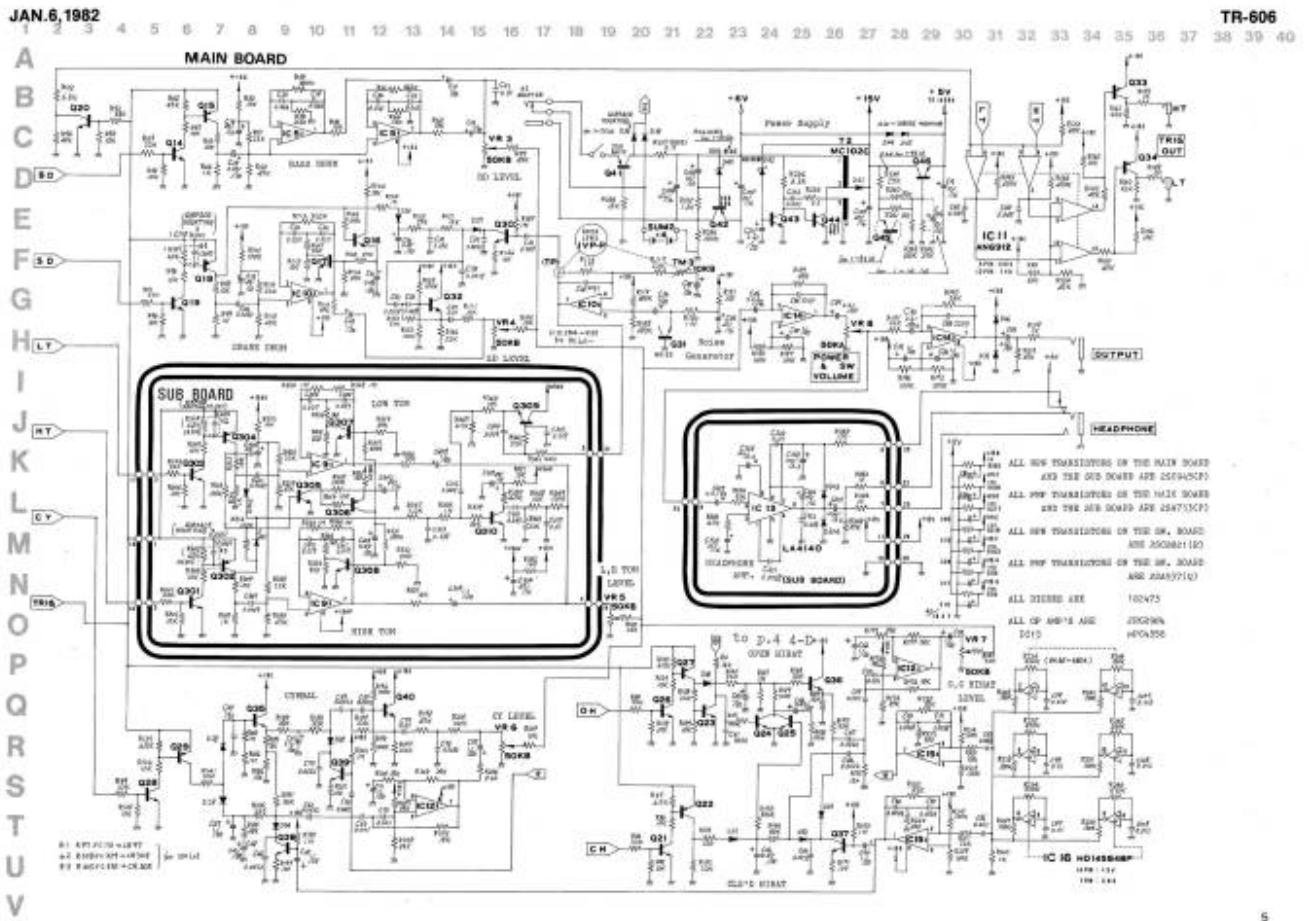
The Analog Circuits (VCF+VCA) get sandwich as normal (not90° angeled)

### 3D View of Sandwiches



make concept

# Original Schematics 303



change against 303

## Mods

### Mod Sources

### Analog Mods



Fill Table with 303 mods

## On-Going

### 1. UI Parts Listing

## BRAIN + BREAKOUT

- [Jacks 3.5mm @ Thonk](#)
- [SPDT Switch ON-OFF-ON @ Rs-components](#)
- [Mini DIN 4 poles @ Rs-components](#)

Value	Type	Qty
3.5mm Jack	Vertical PCB-Mount	13
Switch	SPDT Vertical PCB-Mount ON-OFF-ON	1



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## Pots / Knobs

- [Alps RK11K Series](#)
- [Alpha Pots @ Thonk](#)
- [Knobs Suppliers](#)

Value	Type	Qty
5K	Linear	2
10K	Linear	6
50K	Linear	6
50K	Logarithmic	6
100K	Linear	2
1M	Linear	3
2M?	Linear	2
Knobs	Soft/Plastic/Alu	31

## 2. Analog Parts Listing

### VCA-VCF-Board



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## 3. Footprint Making in KiCAD

- ALPS Pots
- Alpha Pots
- 3,5mm Jack
- Switch
- Momentary Switch
- 7 Segment LED Display
- OLED Display
- Rotary Encoder



have to be done

## 4. Schematics in KiCAD



have to be done

## 5.PCB Making In Kicad

### PCB Making Order

1. BRAIN PCBs
2. BREAKOUT PCBs
3. FILTER PCBs

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