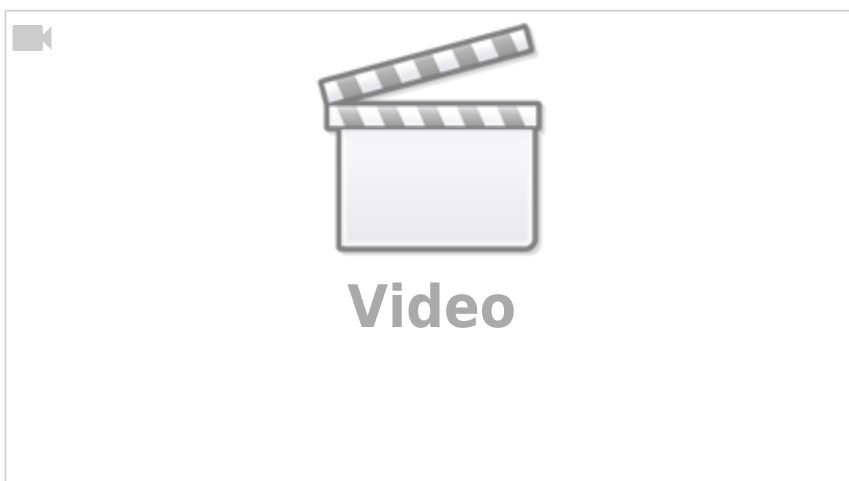


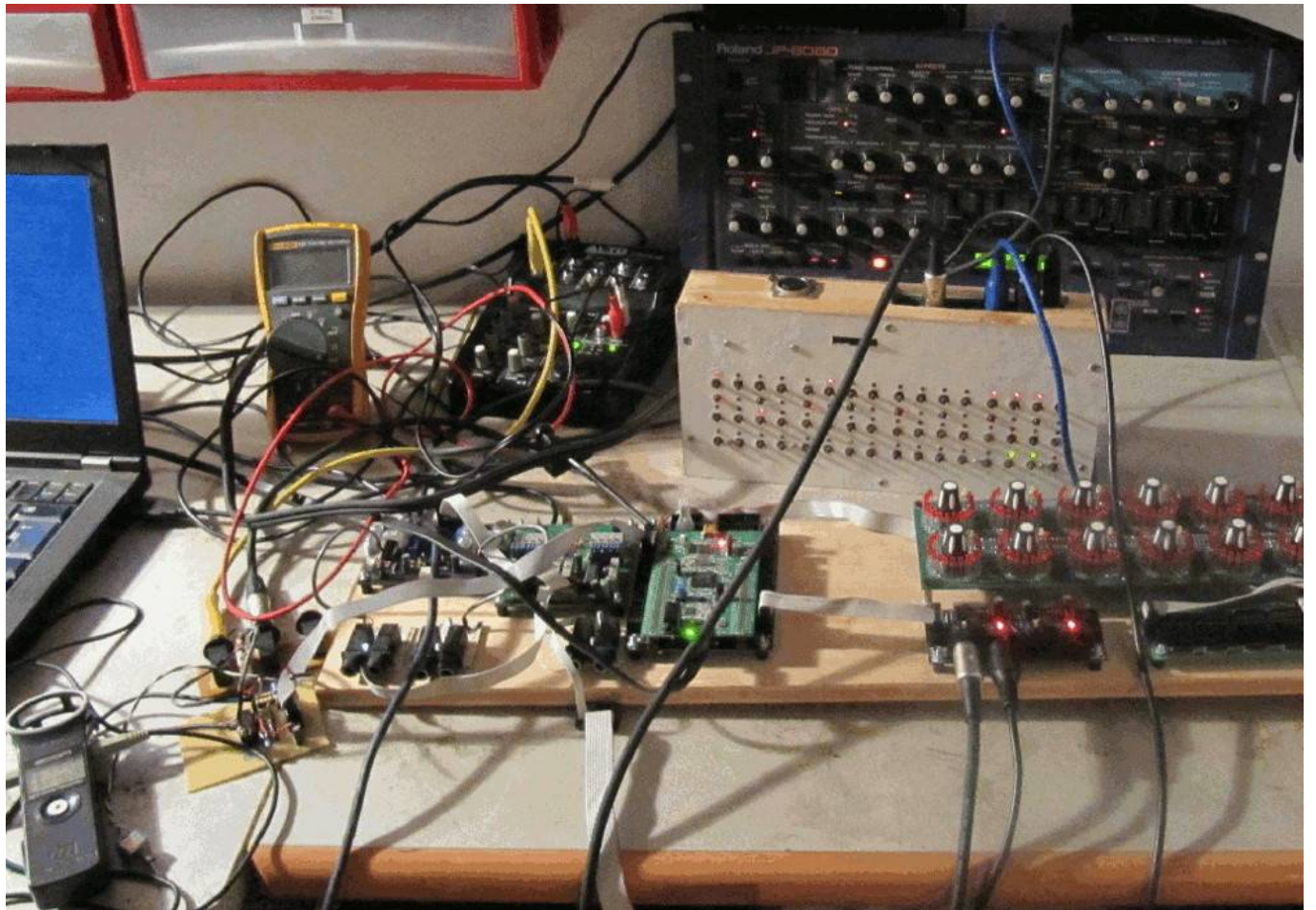
clk2a2clk

Midiclock 2 Audio Converter, Audio 2 Midiclock Converter

4 Recording a Midiclock on a Audio-Track on your Multitrack-Recording-Device

in order to get the possibility to overdub a sequencer track on Recording Devices without Midi-Clock builtin





Introduction

i fell in love with a zoom livetrack-l12, a multitrack-audio-recorder, in a compact design, severell submixes, parametric eqs, compressor, efx and a extra master-track-recording, and that for a good price...

but it doesnt have midi... in specially it does not have a midiclock.

so when i have to make a track new, or i want to overdub a track, a track that is Midiclock-Driven a sequencer track for example...

So with this device, i lose one Audio-Track, because i use this one Audio-Track, as a Click-Track, it records Audio-Rectangle-Pulses, which are a converted Midiclock-Pulses



when i then playback the Click-Track-Recording, it converts this Audio Pulses back to Midiclock-Messages.



Thats all, not much code, stripped down, running thight.

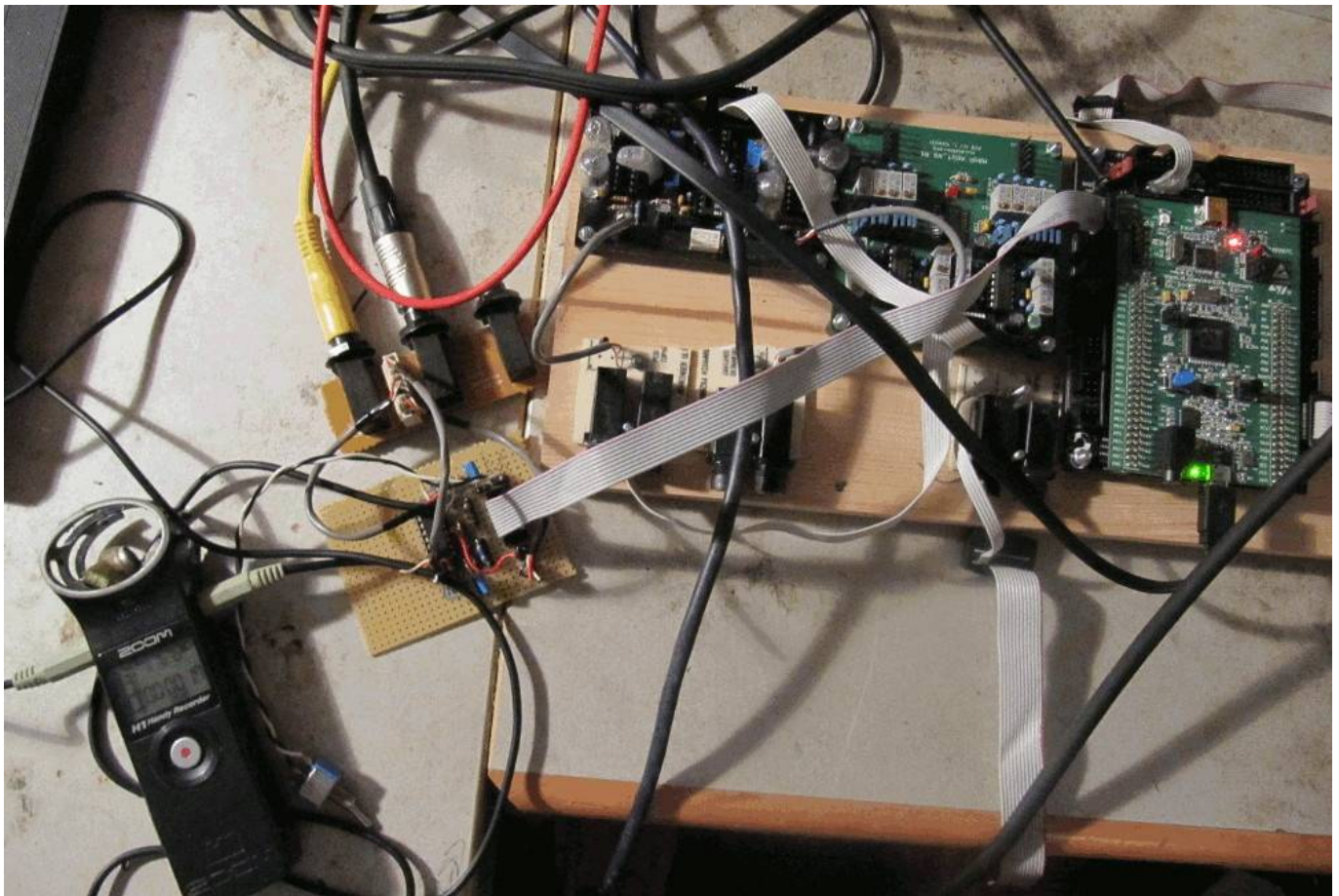
Features

- convert Midi-Clock-Data to Audio-Pulses
- convert Audio-Pulses to Midi-Clock-Data

Hardware Requirements

External Requirement:(for example)

- Clock Source aka Sequencer: [midibox_seq_v4l](#)
- a Synth: JP8080
- a Multitrack-Audio-Recorder: Zoom Livetrack L12
- 3x Midi-Cables



Midibox:

- [core32](#)
- [1xMidi IO](#)
- Soldering Iron, Wires, PCB....
- USB Power Supply

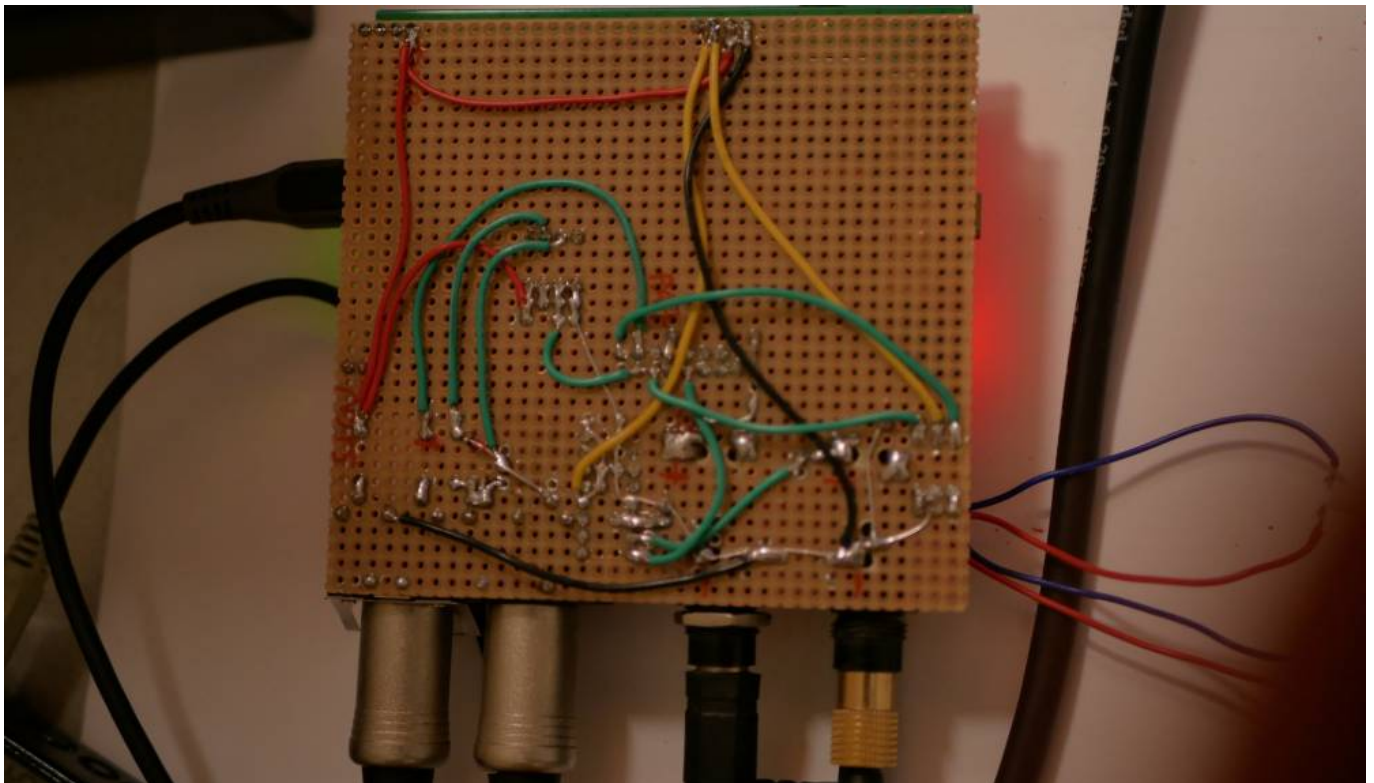
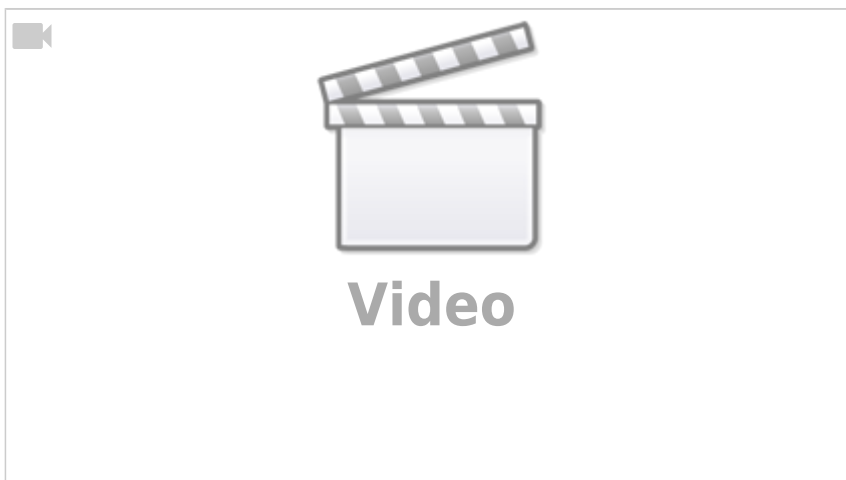
Schmitt-Trigger:

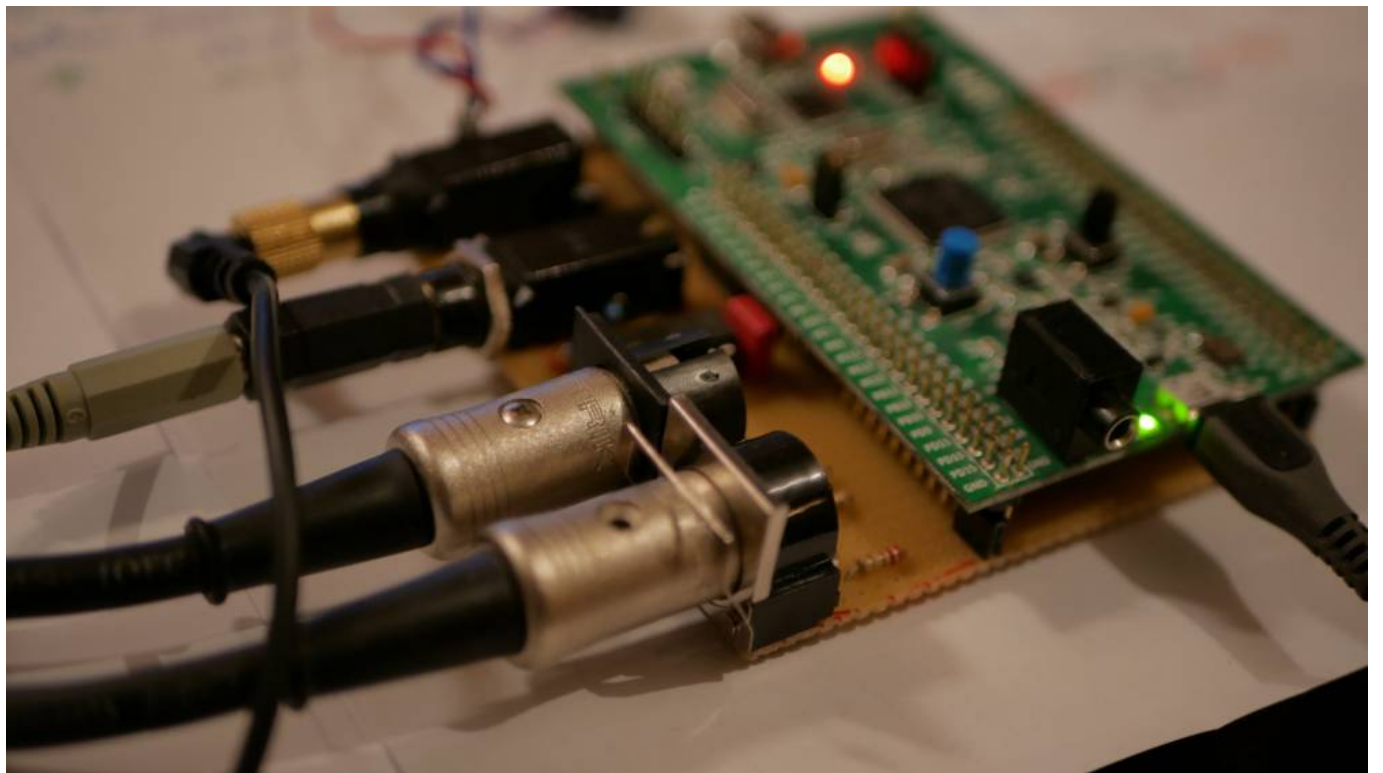
- TS-274 OP-Amp
- 14 Pin - DIP-Socket

- Pin-Header 2x5Pins (to connect the PCB to Core J5A)(you will also need a cable 4 that)
- Resistor R1 20K
- Resistor R2 4K7
- Resistor RFB 100K
- Resistor for Output-Gain-Reduction 100K
- 2x Electrolyt Capacitor 0,67uF (to decouple audio in and out)
- Electrolyt Capacitor 10uF for Supply
- Capacitor 100nF to denoise the OP-Amps-Rails...
- 2 Audio Cables+Sockets for the connection to the Recorder (6,3 mono jacks)

on Protoboard

here i have made it all on protoboard:





1h: DRAW CIRCUIT → VC PINOUT
2h 15min: SOLDERING
1h: PROGRAMMING
: HOUSING

SCHMITT TRIGGER

MC: PC1

MC: PA1

MC: PA2

MC: PA3

MC: PA4

MC: PA9

AMP

AUDIO IN

AUDIO OUT

MODE LED

REC BUTTON (MODE) BTN

REAR VIEW

RESISTORS: R1: 20k-22k, R2: 4k7, RFB: 100k

CAPACITORS: 100nF, 0.68µF, 0.47µF, 100µF, 100k, 4k7, 4k7, 330pF, 22µF, 3.3V

OPTOCOUPLER: 6N138

V_{HI}: 0,65V, V_{LO}: 0,5V

USB POWER BRIDGE

DECOUPLE

IMPEDANCE CHANGE

DEBOUNCE CIRCUIT

CLOCK 2 AUDIO 2 CLOCK

Frontpanels

MBHP

Software

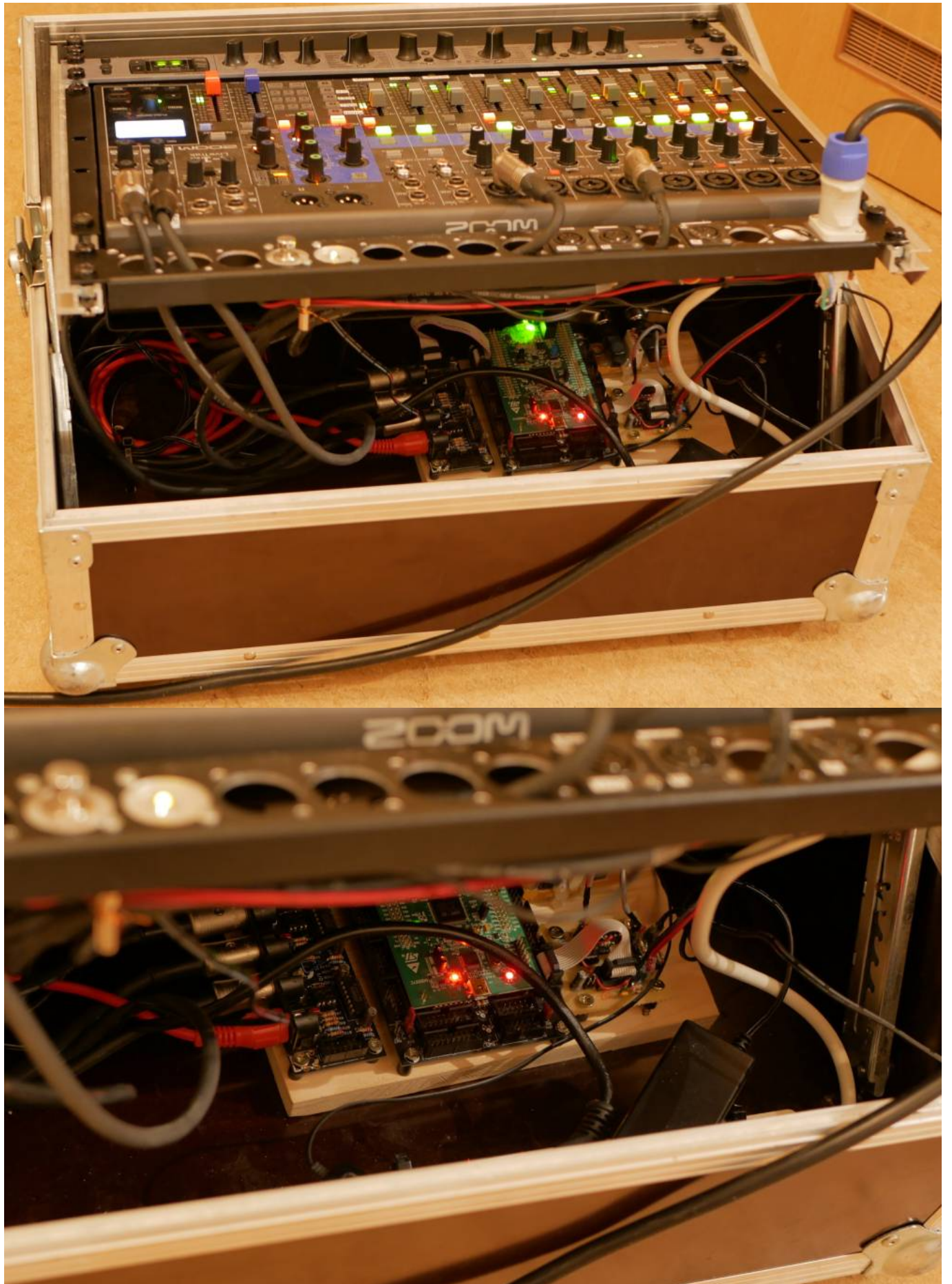
Firmware

V1.2017clk2a2clk.zip hardcodet no menue, no nothing, stripped down to max performance

How I Use It - built in Rack







Resources

[Schmitt-Trigger-Calculator](#)

Community users working on it

- **Phatline** = Programming, Documentation...

Just let a Private message on the forum to user already involved

From:
<https://www.midibox.org/dokuwiki/> - **MIDIbox**

Permanent link:
<https://www.midibox.org/dokuwiki/doku.php?id=clock2audio2clock&rev=1527217627>

Last update: **2018/05/25 03:07**

