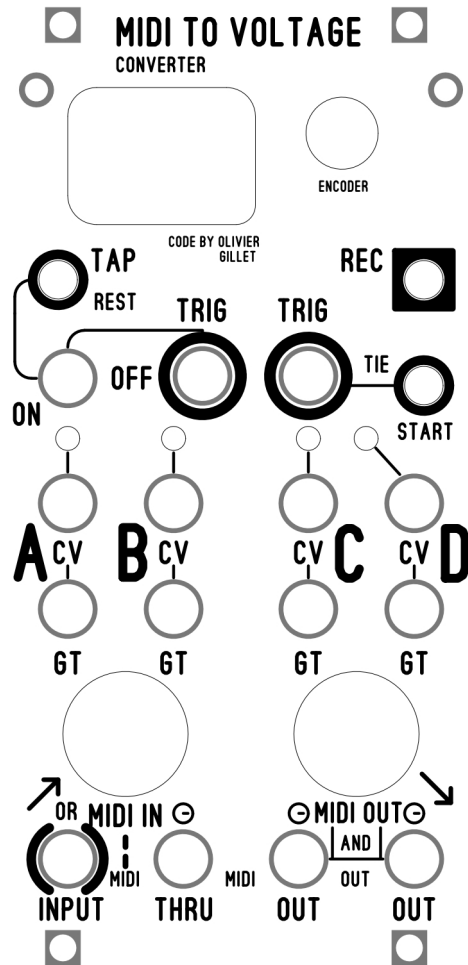# Midi To Voltage Converter Module

Lets make sure you have the right reference pdf. The module is this one:

MIDI TO VOLTAGE
CONVERTER

ENCODER

CODE BY OLIVIER
GILLET

TAP   REC

REST   TRIG   TRIG

OFF   TIE

ON   START

A CV   B CV   CV C   CV D

GT   GT   GT   GT

OR MIDI IN ⊖   ⊖ MIDI OUT ⊖
AND
MIDI   MIDI   OUT
INPUT   THRU   OUT   OUT

This module is my take on the 'Yarns' Midi converter by Olivier Gillet. The firmware loaded is the original. I only did hardware add on's. I added control voltage triggers to the 'TAP' button and the 'TIE' button.
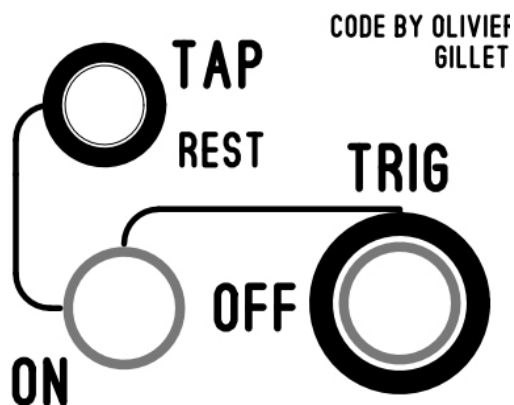
The Midi inputs and outputs were also enhanced for my personal system. I use the 3.5mm patch cable for midi also. This method has recently become popular. For example Korg, Novation and Arturia have adopted this method.

So the point of this PDF is to explain the hardware add on features I did.

Other than that, the firmware behaves like the original module.

This particular enhancement above lets you quickly sync the tap tempo to an analog LFO for example. The reason why there is a switch is because you don't always want the Software to 'Sample' your analog clock.
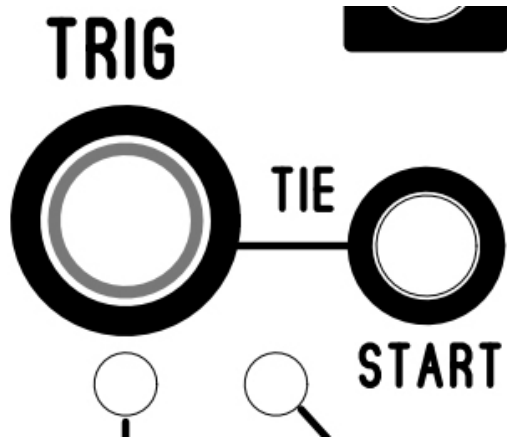
The correct method of using this feature is when you require a quick Tap Tempo change by using a Square wave from an LFO is to patch that into the TRIG input jack. Toggle the switch to the on position. You should hear the Midi to Voltage Converter change in BPM. Then toggle off the switch so that you don't 'take more averages' from the TAP button.

Think of it like this: toggle on to 'SAMPLE' the external analog clock, then turn off the switch to finish the sample. When you require another change in bpm, you do the step again.

You will not break or damage anything if you don't turn off the switch, all you will see is that the clock is taking averages and moving around a bit.

This enhancement adds control voltage to the 'TIE' or 'Start' sequence button. You will want to use slower trigger cycling to find this feature useful. Patching an audio rate LFO for example will not give anything interesting.

Midi Enhancements:

1. 3.5mm jack or Din Midi Input. Only use one at a time.
2. Midi input is then buffered, and passed thru. This is always available since it is a hardware circuit add on.
3. Midi output has a DIN jack, and two buffered 3.5mm Midi Jacks. All can be used at the same time.

Here is a Diagram to show you the midi flow: