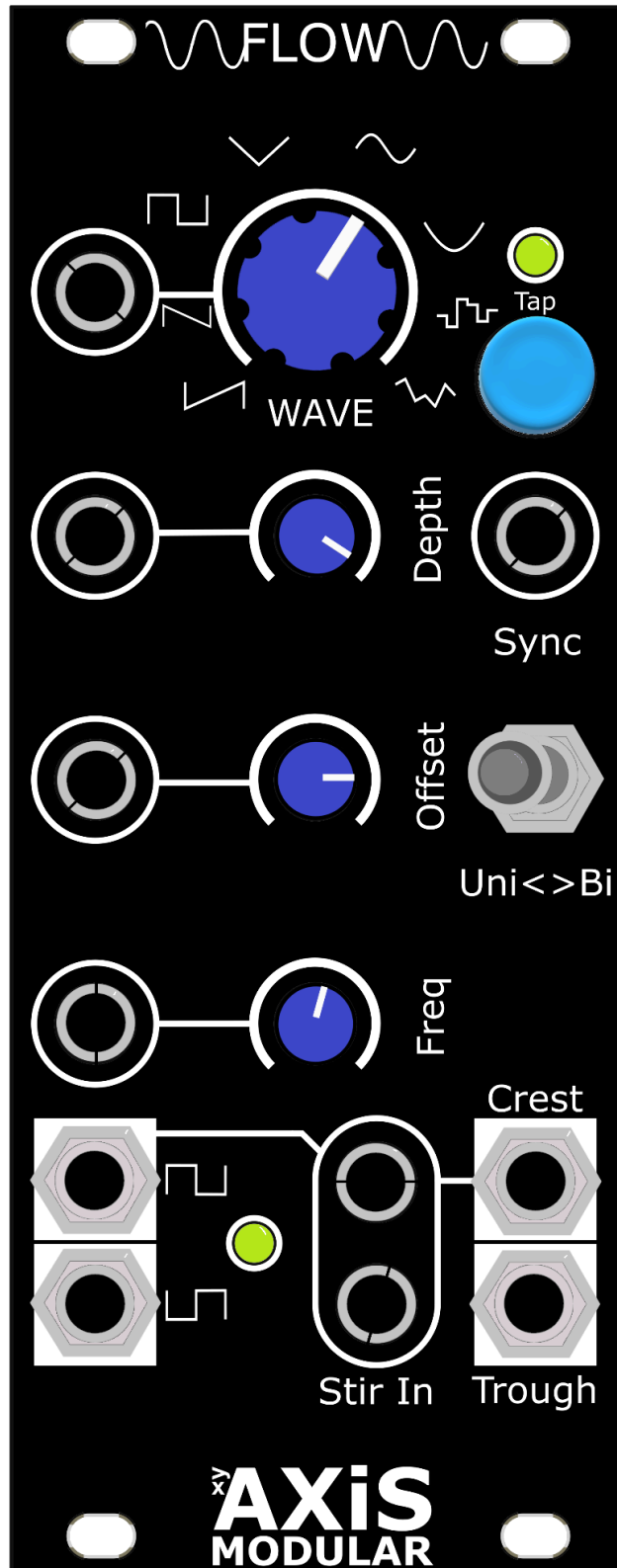


# FLOW Manual



About FLOW:

FLOW is quite simply a fully featured LFO aimed at giving you more than just the usual couple of waveforms found in most synthesisers and Eurorack modules. It offers four simultaneous outputs, its four main parameters have cv control and there is a handy cv(or audio) mixer which outputs to an analogue And/Or circuit.

Features:

Tap Tempo button and clock input jack socket(0-5v pulse signal required).

LFO frequency of 0.05 Hz - 25 Hz meaning waveforms can take from 40 milliseconds to 20 seconds to complete achieving tempos from 3BPM to 1500BPM. So, extremely fast to reeeeeaaaallllyyyy ssssssslllllloooooooowwww.....

Selectable Unipolar and Bipolar waveforms.

CV controls for:

- Waveform
- Depth
- Offset
- Frequency



16 available waveforms from the main outputs(normal and inverted), they are:

Main Output:

- Ramp Up
- Ramp Down
- Square
- Triangle
- Sine
- Sweep
- Random Levels
- Random Sloped Levels

Inverted Output:

- Ramp Up Inverted
- Ramp Down Inverted
- Square Inverted
- Triangle Inverted
- Sine Inverted
- Sweep Inverted
- Random Levels Inverted
- Random Sloped Levels Inverted

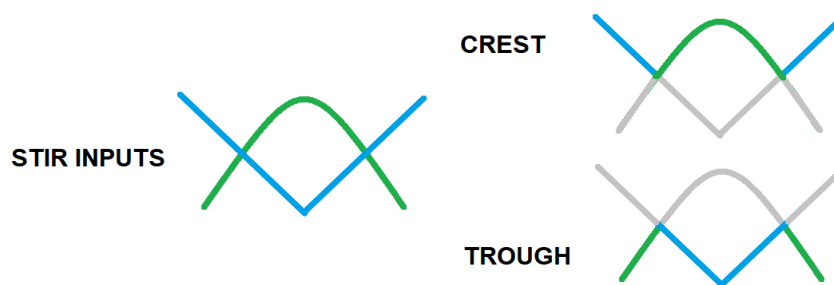
Two other available outputs are the Crest and Trough outputs.

- Crest is the Top half of the Waveform when FLOW is switched to normal bipolar operation.
- Trough is the bottom half of the waveform when in bipolar mode. Note: nothing is output when in Unipolar unless something is patched into the stir inputs(see further in the manual).

Crest(actualy an OR gate) and Trough(a AND gate) waveforms are the different outcomes of a Logic circuit.

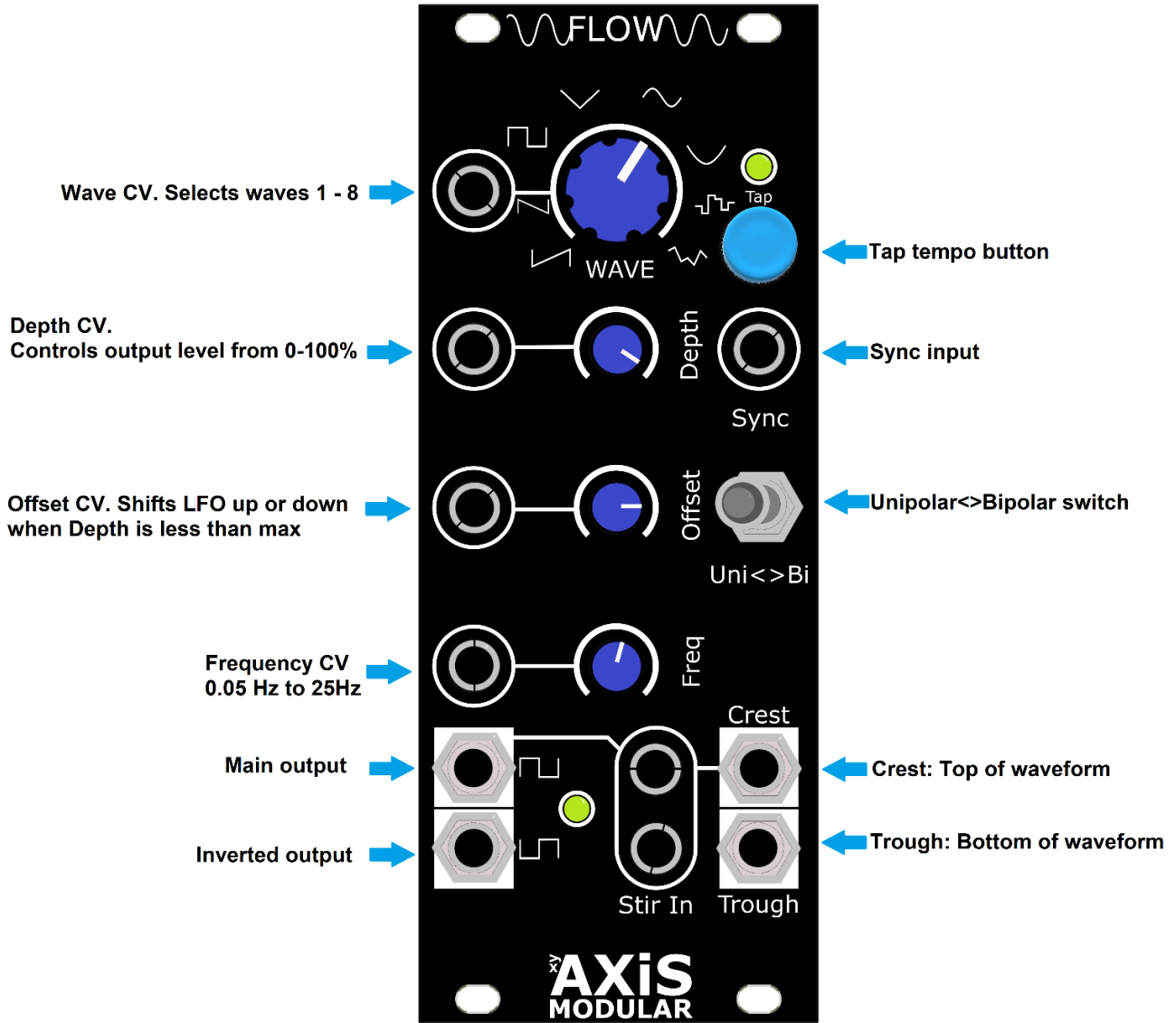
**Crest(Max)** is the OR gate which is normalled to the main output waveform so in Unipolar use it just repeats the same signal however, when switched to Bipolar it will only produce the top half of the current waveform.

**Trough(Min)** is the AND output of the Logic signal. Note that nothing is output when FLOW is set to Unipolar and nothing else is patched into the Stir inputs.



**Stir** is a two input mixer for any CV or audio signals. If you patch any other external signal into the bottom jack socket you will mix in that signal with FLOW's waveform to produce two new sets of waveforms based on the internal one.

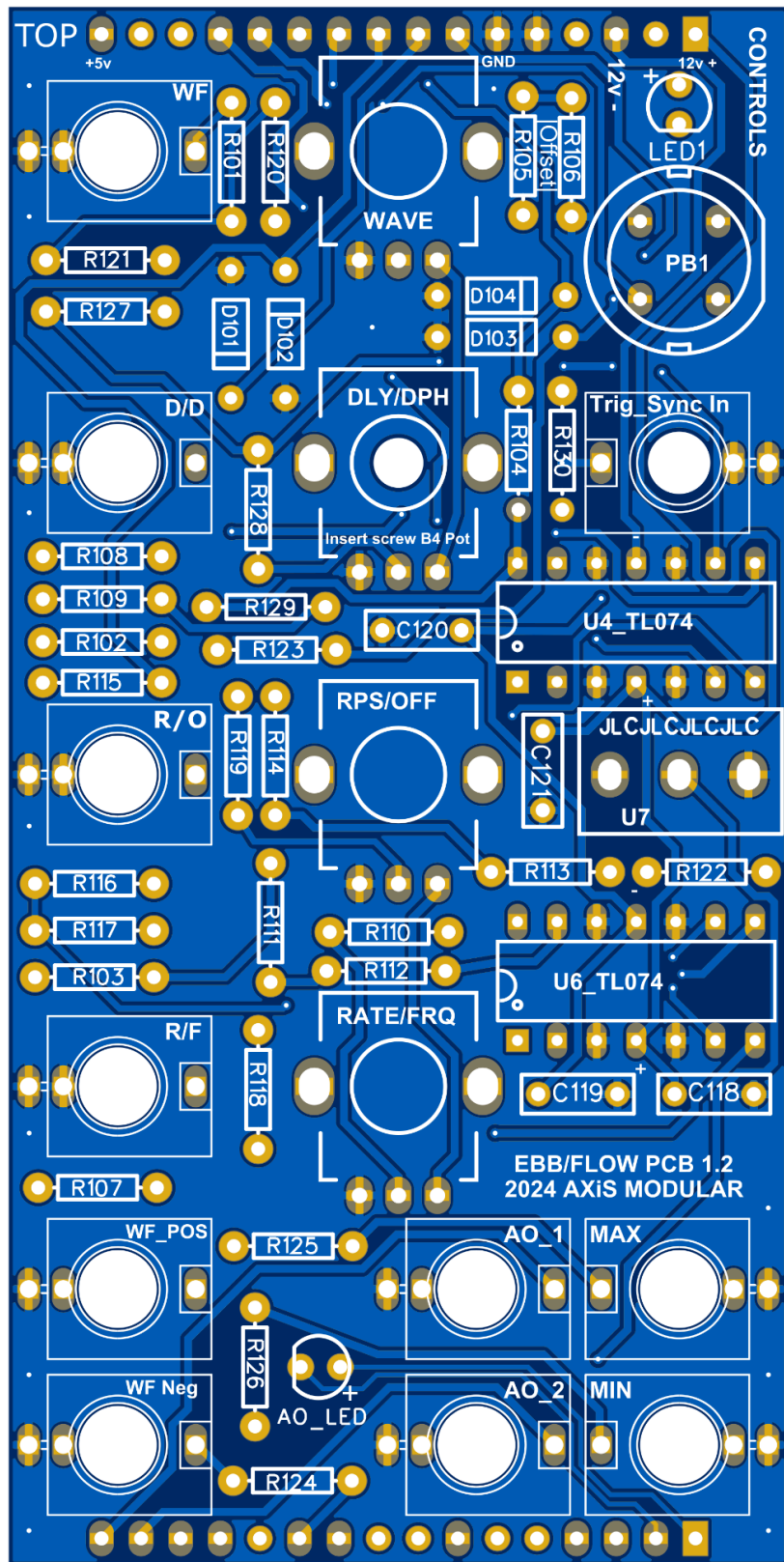
If you patch in a signal to the top Stir socket it will break FLOW'S connection and use the incoming signal instead, so you can mix two completely external signals if you wish.



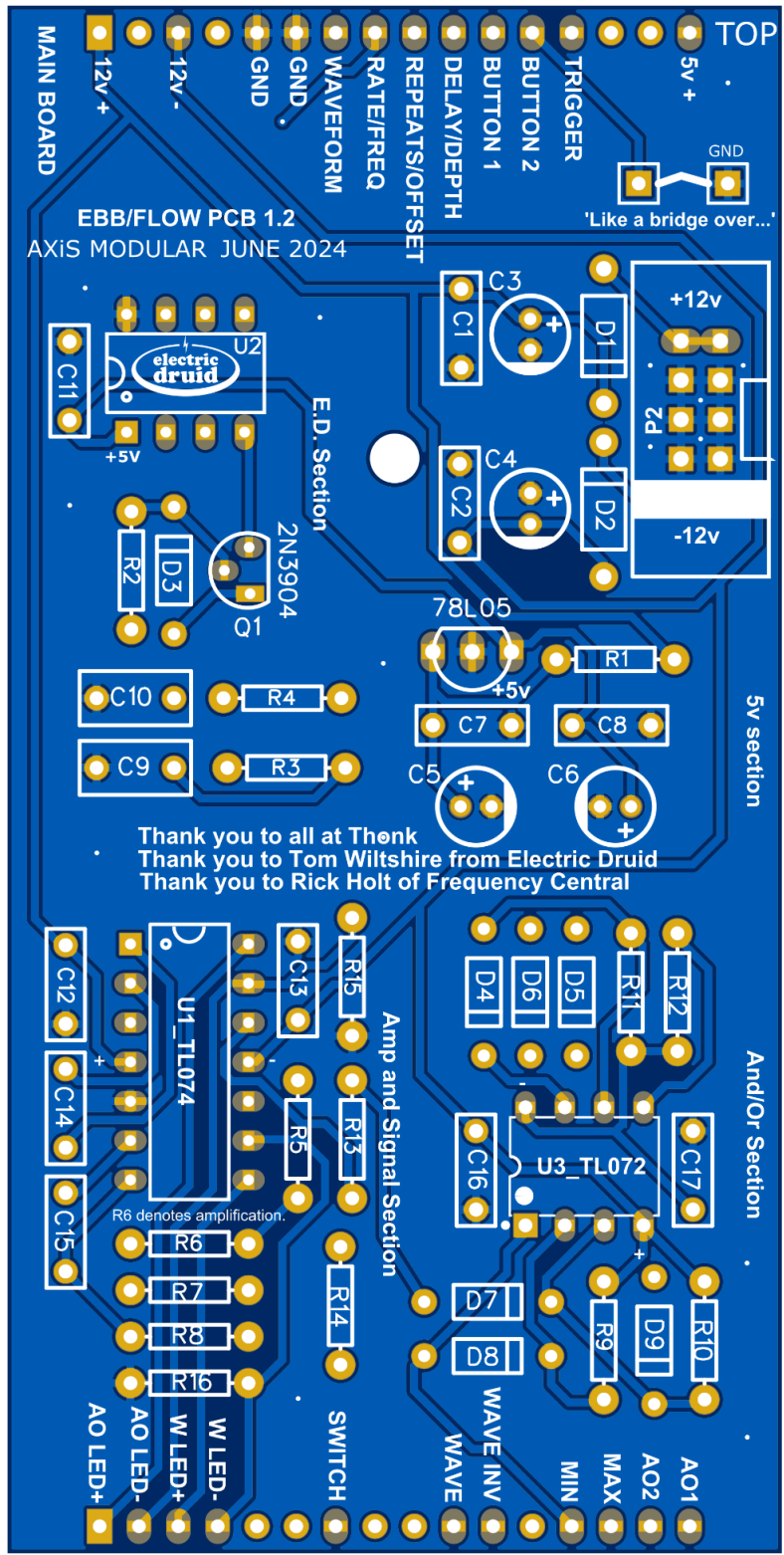
Patch an external signal into the bottom jack to mix with FLOW's LFO.  
 Patch another signal to the top Stir jack socket and it will break connection to FLOW's internal LFO allowing you to use the Stir and Crest/Flow separately

**Note: Try patching FLOW outputs back into its CV inputs.**

CONTROLS BOARD:



MAIN BOARD:



I really hope you enjoy using FLOW creatively in your Eurorack. I've spent around two years developing it into what I hope is a useful tool for you to have in your creative Eurorack setup, however big or small.

Thanks go to Tom Whiltshire from Electric Druid(He's the one behind the StompLFO IC), Jack @Beepboop , Rick Holt(Frequency Central), Gaz Williams, Jason Jervis, Emilie Gillet, all at the Synth Shed, Thank and lastly my family.

#### Features:

- Fully featured Tap Tempo LFO using the Electric Druid StompLFO IC.
- 4 simultaneous outputs.
- Unipolar or Bipolar operation.
- 8 waveforms from the main output and a further 8 inverted.
- A Tap tempo button with sync input.
- And/OR CV/audio mixer section with Max/Min(Crest/Through) outputs.
- CV inputs and level controls for Waveform, Depth, Offset, Frequency.

#### Specs:

- Width: 10HP.
- Power Consumption: +12v 42ma, -12v 28ma.
- Depth: 44mm including cable.