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Skip to content

Search... Search

Advanced search

[ Moderator Control Panel ]

# Tap tempo indicator idea..

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Search this topic... Search

3 posts • Page 1 of 1

- Edit post (./posting.php?mode=edit&f=42&p=3560)
- Delete post (./posting.php?mode=delete&f=42&p=3560)
- Report this post (./report.php?f=42&p=3560)
- Warn user (./mcp.php?i=warn&mode=warn\_post&f=42&p=3560&sid=d6d1dcc4501596550704606791e62b4c)
- Information (./mcp.php?i=main&mode=post\_details&f=42&p=3560&sid=d6d1dcc4501596550704606791e62b4c)
- Reply with quote (./posting.php?mode=quote&f=42&p=3560)

## Tap tempo indicator idea.. (#p3560)

by dschwartz » Tue Aug 13, 2019 9:19 am

I have researched Tap tempo implementation on the FV1 and the best option seems to be Slacker's code. There's a version where you can use the TIME pot and attach a switch to the corresponding POT pin, and if the pot is at max (or zero, depending on the implementation) the pin reads the switch as tap tempo, setting a 1Sec Ramp function and measuring time between taps...BUT

For the Tap Tempo indicator, you have to sacrifice one output..and i would like to have both outputs...

Considering that audio range is 20Hz on the low side, and the tap tempo max frequency would be much lower than that (unless you have unhuman tap speed powers)..have anyone thought about mixing the tap indicator wave with the audio output at one side? The audio part is then filtered by a HF filter (physical filter, 2-pole 60Hz corner) into the output mixer, and the tap wave part can be low pass filtered (2 pole, 30hz LPF) and then amplified by a transistor to drive a led...

Of course, the tap wave should be reasonably small so the audio part does not clip the DAC..

Has anyone considered this? is it feasible?

#### Cheers!!

#### Top

- Edit post (./posting.php?mode=edit&f=42&p=3563)
- Delete post (./posting.php?mode=delete&f=42&p=3563)
- Report this post (./report.php?f=42&p=3563)
- Information (./mcp.php?i=main&mode=post\_details&f=42&p=3563&sid=d6d1dcc4501596550704606791e62b4c)
- Reply with quote (./posting.php?mode=quote&f=42&p=3563)

### Re: Tap tempo indicator idea.. (#p3563)

by **Digital Larry** » Thu Aug 15, 2019 8:25 am

Pretty clever idea, not sure about the details. As I see it, tap tempo usually just counts up to a point then resets so by itself it's generating a ramp/saw waveform. I've sent this signal, appropriately scaled, to an LED connected to one of the outputs, but dedicated in that case.

That abrupt transition on the ramp waveform is going to generate audio components that are way above the LFO rate unfortunately. If there was a way to sync a sin LFO to this then you might be able to get away with splitting those apart using analog filtering.

### Top

- Edit post (./posting.php?mode=edit&f=42&p=3577)
- Delete post (./posting.php?mode=delete&f=42&p=3577)
- Report this post (./report.php?f=42&p=3577)
- Warn user (./mcp.php?i=warn&mode=warn\_post&f=42&p=3577&sid=d6d1dcc4501596550704606791e62b4c)
- Information (./mcp.php?i=main&mode=post\_details&f=42&p=3577&sid=d6d1dcc4501596550704606791e62b4c)
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## Re: Tap tempo indicator idea.. (#p3577)

by **dschwartz** » Sat Aug 24, 2019 5:52 pm

Yes you're right.

It has to be a sine or at least a triangle wave to be able to filter it effectively. I would think triangle would be best for resources sake.

юр

Display posts from previous: All posts Sort by Post time Ascending Go

Post a reply

3 posts • Page 1 of 1

Return to Developer's Corner

necum to Beveloper's come	
Jump to: Developer's Corner	Go
Quick-mod tools: Lock topic	Go

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1 of 2 11/19/2019, 7:01 PM

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2 of 2