



## MUFF WIGGLER

Harder, Better, Faster, Stronger

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Information



WE ARE BACK!! PLEASE READ THIS:  
[www.muffwiggler.com/forum/viewtopic.php?p=1765860](http://www.muffwiggler.com/forum/viewtopic.php?p=1765860)




### MW Radio

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## [Project] Music Thing Radio Music 4hp sample player

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Author [Project] Music Thing Radio Music 4hp sample player View prev

**Tombola**  
Super Deluxe Wiggler  
Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015  
  
Posts: 1322  
Location: London, England

Posted: Sun Nov 30, 2014 2:18 pm Post subject: [Project] Music Thing Radio Music 4hp sample player



This is the main thread for my new project, the Music Thing Radio Music Sample Player.

It's a 4hp module that behaves like a [Voltage Controlled FM Radio](#) or a [Shortwave Radio](#), but is actually playing files from a SD Card, without radio reception.

Why would anyone want a radio station in a modular synth?

**Features**

- 4hp x 40mm deep
- All through hole, no SMD soldering, including what I think is the world's only through-hole SD Card holder
- Samples stored as 16bit 44.1k mono .raw files on hot-swappable Micro SD cards (up to 32gb)
- 16 banks, up to 75 files in each bank
- Playback is 12 bit, 44.1k, AC coupled
- Based on a Teensy 3.1 microcontroller
- 75ma current draw

**Controls**

- Station pot (and CV Input) This is how you choose which file to play from the current bank. It works exactly like a radio tuning knob. Like loop endlessly and continue to play in the background - they don't re-trigger each time you select a new station. If you turn on the module switch to a channel playing a 30 minute long radio recording, it will be 5 minutes in.
- Start pot (and CV input) This sets where the file will start playing from if you press the RESET button.
- Reset Button (and trigger input) This restarts the current track at the point set by the Start pot.
- The module creates a settings.txt file on the SD card. By editing this, you can change how the module behaves; how quickly pots respond

**Status**

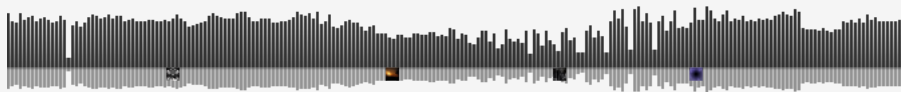
- [Here is the wishlist](#) for kits from Thonk
- Software is [stable](#) ([issue log](#))
- Rev 2 PCBs are [available](#) and will soon be prototyped for the Thonk run
- Hardware designs and my code is all CC-BY-SA licensed

**Details**

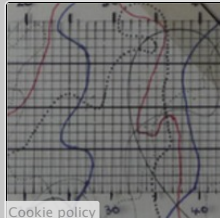
- [Manual](#)
- [Documentation](#) including build documents, BOM etc
- [Suggested audio](#)
- [Hardware and Software details](#)



MusicThing  
Radio Music 20 minutes of madness



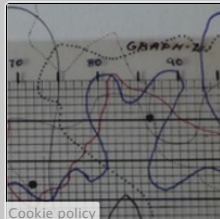
[Cookie policy](#)



MusicThing  
Radio Music Random Drums



[Cookie policy](#)



MusicThing  
Radio Music Random Voices



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Like this project? Donate some money to Resonance FM so I have something interesting to listen to in the car

<http://musicthing.co.uk/modular/>

The Music Thing Module Generator®

Last edited by Tombola on Wed Dec 03, 2014 7:34 am; edited 4 times in total

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**Tombola**  
Super Deluxe Wiggler



Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015  
  
Posts: 1322  
Location: London, England

Posted: Sun Nov 30, 2014 2:27 pm Post subject:

Questions and answers from the other threads, so everything is one place:

Windsprite asked:

1) will this be open source also? If so I may make a whole row for myself :p  
> Yes, it is CC-BY-SA

2) with a fast enough clock can you "scrub" the sample position with a saw tooth wave?

> ...ish. If you edit the settings.txt file you can get the module to respond in a fast, raw, noisy way without the affordances that normally n

Stainers asked:

Is there anyway you can get it to keep memory of all settings after a power cycle?

> It retains the current bank (which is set by pushing/holding reset) but not the play position

Waveglider asked:

Does that mean that once you trigger a station, leave it, then come back- the playback position will have followed in real time and it picks u rather than the position where you left off?

> Yes, that's the idea

B-Art asked:

I mean i really like the whole radio concept and think its awesome for long samples and recordings (conceptual yes!) but i was also plann sampler. For various reasons.

>You can probably do this - ie fill up a folder with one shot samples, choose a sample by voltage, then trigger it from the start using the re

>Would be easy enough to add a 'don't loop' option on the SD card if that turns out to be useful.

>OR if you have any arduino coding chops, it's very easy to hack the firmware - you can use the normal Arduino language and upload via a

SpunRaddish asked:

Do we have ways to write to SD cards in modular yet as a function of sample recording?

> And got a long reply from Teensy creator Paul Stoffregen

Taylor12k asked:

is it an fm radio that samples it's own stations?

does it sample outside sources?

>is that it's a sample player with a radio-like interface.

>So you can load up a bunch of Conet Project samples and it's like the easiest SW radio ever.

<http://musicthing.co.uk/modular/>

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**Spip**

Common Wiggler

Posted: Sun Nov 30, 2014 3:20 pm Post subject:

Joined: 19 Jun 2013  
Last Visit: 01 Jan 2015



Posts: 159

Really nice !

Any idea of when ?

Will it be a DIY kit ?

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**NS4W**

Veteran Wiggler

Posted: Sun Nov 30, 2014 3:29 pm Post subject:

I'm already collecting samples to put in it!

<http://soundcloud.com/ns4w/>



Joined: 12 Jan 2012  
Last Visit: 06 Jan 2015



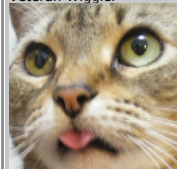
Posts: 713

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**lintfresh**

Veteran Wiggler



Posted: Sun Nov 30, 2014 3:34 pm Post subject:

Stand out work as always, Tom.

A few questions if I may:

I'm assuming you're using the onboard PWM for audio output as I don't see a DAC. I'm curious how you feel about the audio quality trade-off to this design decision.

Is the code written using the teensyduino tools?

Joined: 29 Aug 2013  
Last Visit: 22 Jan 2015



Posts: 544

Location: Seattle

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**Tombola**

Super Deluxe Wiggler

Posted: Sun Nov 30, 2014 3:46 pm Post subject:

**lintfresh wrote:**

I'm assuming you're using the onboard PWM for audio output as I don't see a DAC. I'm curious how you feel about the audio quality trade-off to this design decision.

Is the code written using the teensyduino tools?



Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322

Location: London, England

The Teensy 3.1 has an on-board 12-bit DAC.

I've been very happy with the sound - it's probably more Akai S900 than Pro Tools HD, but it's full range, loud and clear, as you should be able to hear in the demos.

Yes, it's all Teensyduino - I've modified a couple of functions in the library a little bit, but it's basically stock, so is really easy for anyone who's interested to start.

<http://musicthing.co.uk/modular/>

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**knob\_alchemist**

Common Wiggler

Posted: Sun Nov 30, 2014 3:56 pm Post subject:



Interesting project....will be my next build....

<http://knobalchemist.net>

[http://mixcloud.com/knob\\_alchemist](http://mixcloud.com/knob_alchemist)

[http://soundcloud.com/knob\\_alchemist](http://soundcloud.com/knob_alchemist)

Joined: 22 Jan 2012  
Last Visit: 07 Jan 2015



Posts: 246  
Location: Bolzano, Italy

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**windspirit**  
Super Deluxe Wiggler



Joined: 20 Sep 2012  
Last Visit: 07 Jan 2015



Posts: 1410  
Location: krellifornia

Posted: Sun Nov 30, 2014 3:58 pm Post subject:

Are the problems with the v1 pcb outlined in the github? I am not very patient 😊

EDIT: nvm, I was being lazy, I looked it up myself. Thank you tom for another amazing module!

<http://www.circuitshaman.com/>

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**executiveBlaster**  
Wiggling with Experience



Joined: 12 Oct 2011  
Last Visit: 05 Jan 2015



Posts: 362

Posted: Sun Nov 30, 2014 4:14 pm Post subject:

great work 👍

[www.supersynthesis.com](http://www.supersynthesis.com)

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**valis**  
aliens killed bigfoot



Joined: 30 Sep 2008  
Last Visit: 06 Jan 2015



Posts: 2122  
Location: normality, illinois

Posted: Sun Nov 30, 2014 4:20 pm Post subject:

Very cool!

More questions..

- 1) Can it run on +/-15V
- 2) Do you envision one will be able to buy just the circuit board without the euro panel?

Thanks!

Lacking in provenance.

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**ClausE**  
Common Wiggler

Joined: 08 Oct 2012  
Last Visit: 06 Jan 2015



Posts: 83

Posted: Sun Nov 30, 2014 4:32 pm Post subject:

Great!

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**Tombola**  
Super Deluxe Wiggler



Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

Posted: Sun Nov 30, 2014 4:40 pm Post subject:

**valis wrote:**

Very cool!

More questions..

- 1) Can it run on +/-15V
- 2) Do you envision one will be able to buy just the circuit board without the euro panel?

Thanks!

+15v should be fine but untested - it's TL07\* op amps and a 78L05 feeding the Teensy

This is a pair of super tight boards - there are no mounting holes, no screws/spacers connecting the front and back boards, just panel mount headers/sockets connecting the two boards - so it *might* be harder than some other designs to hack into a different format.

OTOH, it's so tiny, you could probably make a quad sample player in one of the big formats.

If you did want to do that, the Teensy has more grunt than is being used here - I think people have got it playing 4+ separate .wav files simultaneously, so with an outboard DAC it might be possible to do a quad/poly version...

<http://musicthing.co.uk/modular/>

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**mxmxmx**

Veteran Wiggler

Posted: Sun Nov 30, 2014 5:02 pm Post subject:



Joined: 31 May 2012  
Last Visit: 03 Jan 2015



Posts: 557  
Location: berlin

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**Tombola wrote:**

If you did want to do that, the Teensy has more grunt than is being used here - I think people have got it playing 4+ separate .wav files simultaneously from one SD card, so with an outboard DAC it might be possible to do a quad/poly version...

people have indeed done this. but doing more than stereo with separate outputs wouldn't be feasible with i2s devices (which most decent audio DACs are), and SPI/DMA is currently supported by the API so .. possible maybe, worth the trouble probably no.

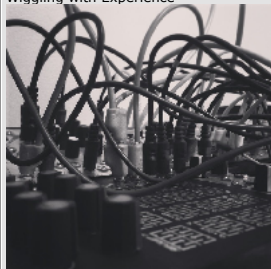
<http://ultrabeige.tumblr.com/>

Last edited by mxmxmx on Sun Nov 30, 2014 6:01 pm; edited 1 time in total

**MrNovember**

Wiggling with Experience

Posted: Sun Nov 30, 2014 5:24 pm Post subject:



Joined: 21 Nov 2013  
Last Visit: 22 Jan 2015



Posts: 268  
Location: Outside Toronto, Ontario

Definitely interested in this  
Really want a Mikrophonie too  
I just need as many weird sound sources as possible apparently

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**Tombola**

Super Deluxe Wiggler

Posted: Sun Nov 30, 2014 5:53 pm Post subject:



Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

**mxmxmx wrote:**

**Tombola wrote:**

If you did want to do that, the Teensy has more grunt than is being used here - I think people have got it playing 4+ separate .wav files simultaneously from one SD card, so with an outboard DAC it might be possible to do a quad/poly version...

people have indeed done this. but doing more than stereo with separate outputs wouldn't be feasible with i2s devices (which most decent audio DACs are), and SPI/DMA is currently supported by the API so .. possible maybe, worth the trouble probably no.

Ah, got it.

<http://musicthing.co.uk/modular/>

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**mxmxmx**

Veteran Wiggler

Posted: Sun Nov 30, 2014 6:04 pm Post subject:



**Tombola wrote:**

**mxmxmx wrote:**

**Tombola wrote:**

If you did want to do that, the Teensy has more grunt than is being used here - I think people have got it playing 4+ separate .wav files simultaneously from one SD card, so with an outboard DAC it might be possible to do a quad/poly version...

people have indeed done this. but doing more than stereo with separate outputs wouldn't be feasible with i2s devices (which most decent audio DACs are), and SPI/DMA is currently supported by the API so .. possible maybe, worth the trouble probably no.

Joined: 31 May 2012  
Last Visit: 03 Jan 2015



Posts: 557  
Location: berlin

Ah, got it.

ups. typo - i meant to write "SPI/DMA isn't currently supported by the API so ...". anyways, it's perfectly possible to stream several files so inputs will be an easy mod.

<http://ultrabeige.tumblr.com/>

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**Monobass**  
thonk.co.uk



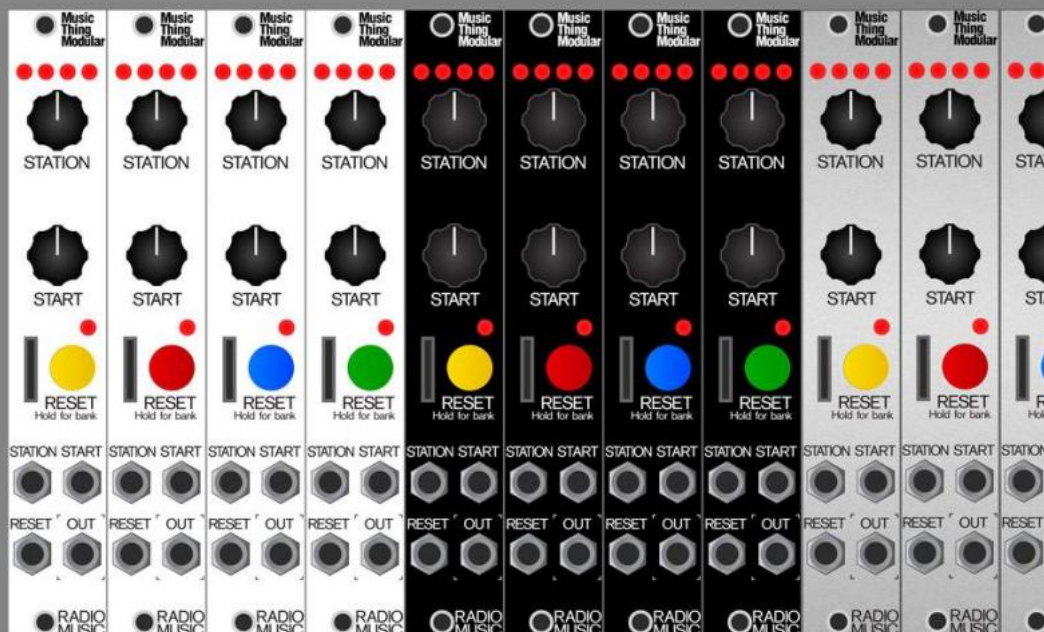
Joined: 29 May 2009  
Last Visit: 06 Jan 2015



Posts: 8287  
Location: Brighton, UK

Posted: Sun Nov 30, 2014 6:29 pm Post subject:

Will be doing panels in the same range of colours as the Spring Reverb, White and Black PCB and Aluminium. Oh and with four choices of button colour 😊



MUSIC THING MODULAR  
RADIO MUSIC 4HP 16b 4K  
PLAYBACK  
AVAILABLE EARLY 2015

Thonk - Modular Synth DIY + Eurorack Accessories Store

Last edited by Monobass on Fri Dec 19, 2014 8:46 am; edited 2 times in total



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**oscillateur**  
Ultra Wiggler



Joined: 20 Feb 2011  
Last Visit: 22 Jan 2015



Posts: 883  
Location: Tokyo

Posted: Sun Nov 30, 2014 6:40 pm Post subject:

Will there be an already built version ?

<https://soundcloud.com/boringmachine>

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**LoFi Junglist**  
Wired for sound



Joined: 30 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1965  
Location: Adelaide, Australia.

Posted: Sun Nov 30, 2014 8:10 pm Post subject:

**Monobass wrote:**

Have started purchasing for the first run of kits. January definitely seems possible right now.

The mailing list doesn't specify how many kits people are interested in. I definitely want two please.

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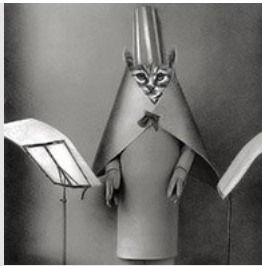
**makers**  
Wiggling with Experience

Posted: Sun Nov 30, 2014 8:17 pm Post subject:

I've already got an unused Teensy 3.1. It would be great to have a PCB/panel option sans the Teensy.

Sounds: <http://moffenzeef.bandcamp.com>

Last edited by makers on Sun Nov 30, 2014 10:58 pm; edited 1 time in total



Joined: 20 Mar 2013  
Last Visit: 04 Jan 2015



Posts: 429  
Location: South Carolina, US

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**Ras Thavas**  
Common Wiggler



Joined: 29 Jun 2012  
Last Visit: 22 Jan 2015



Posts: 249  
Location: Northbay, CA

Posted: Sun Nov 30, 2014 8:54 pm Post subject:

A question that I'm sure the answer will be "no" to, but have to ask anyway-

Would two of these with the same "stations" saved on their cards stay remotely in sync after a "reset" pulse? I ask as two thoughts come to timing pulse tracks.

I'm actually more interested in the second option, I know this isn't supposed to be a sampler, but I'd like some way to sync up the stations beyond the reset input.

My Current System:

<http://www.modulargrid.net/e/racks/view/62913>

<http://www.modulargrid.net/e/racks/view/84019>

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**NU**  
Wiggling with Experience



Joined: 01 Jan 2013  
Last Visit: 04 Jan 2015



Posts: 319  
Location: West Coast

Posted: Mon Dec 01, 2014 2:08 am Post subject:

If anyone in North America would be willing to build an extra one for me, please let a dude know.

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**Tombola**  
Super Deluxe Wiggler



Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

Posted: Mon Dec 01, 2014 2:22 am Post subject:

**Ras Thavas wrote:**

A question that I'm sure the answer will be "no" to, but have to ask anyway-

Would two of these with the same "stations" saved on their cards stay remotely in sync after a "reset" pulse? I ask as two thoughts come to timing pulse tracks.

I'm actually more interested in the second option, I know this isn't supposed to be a sampler, but I'd like some way to sync up the stations with modular beyond the reset input.

If you want to build a stereo version, you'd just need:

- An outboard DAC for 2 channel audio - mxmxmx's Eurotrash project would be a good place to start in terms of schematic. OR you could u
- Then you'd need to get my code playing stereo .wav files vs .raw, which shouldn't be a huge piece of work. Again, mxmxmx has done mo
- <http://forum.pirc.com/threads/24793-Audio-Library?p=55274&viewfull=1#post55274>
- A bit more panel space, and at least one SMD component - thats why I didn't do it.



<http://musicthing.co.uk/modular/>

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**meatbeatz**  
Super Deluxe Wiggler

Posted: Mon Dec 01, 2014 10:26 am Post subject:



genius! 🤖👉👈

Amalgamod - Modular Synth Cases

Joined: 17 Mar 2012  
Last Visit: 22 Jan 2015



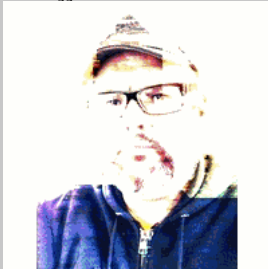
Posts: 1108  
Location: Melbourne, Australia

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**337is**  
Ultra Wiggler

Posted: Mon Dec 01, 2014 10:30 am Post subject:



I read about this last night but couldn't watch the video at that time ... mind blown. Watched the video finally this morning. Gobsmacked! (I added my name to the Think notification list. Incidentally, thanks for making stuff to build that isn't SMD ... my vision doesn't go that small! 🤖)

SCLoud MGrid

I've had great B/S/T transactions with: ryandfl, Soy Sos, metaBit, haven, swordsect, goiks, FSK1138, numan7, dubno, VanEck, rico loverde, paults, vonbonenstein, & soundwave106

Joined: 29 Feb 2012  
Last Visit: 22 Jan 2015



Posts: 928  
Location: SW MI

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**hallvard**  
Learning to Wiggle

Posted: Mon Dec 01, 2014 11:12 am Post subject:

Joined: 08 May 2014  
Last Visit: 07 Jan 2015  
Posts: 46  
Location: Norway

Looks very interesting! Looking forward to this 😊

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**mush**  
Common Wiggler

Posted: Mon Dec 01, 2014 11:29 am Post subject:



Is the output DC-coupled so I can use it as a pseudo-random sequencer?

Joined: 28 Sep 2010  
Last Visit: 08 Jan 2015



Posts: 167  
Location: Copenhagen, Denmark

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**Tombola**  
Super Deluxe Wiggler

Posted: Mon Dec 01, 2014 11:34 am Post subject:



**mush wrote:**

Is the output DC-coupled so I can use it as a pseudo-random sequencer?

No, sorry - it's AC coupled for audio

<http://musicthing.co.uk/modular/>

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Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

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**mxmxmx**

Veteran Wiggler

Posted: Mon Dec 01, 2014 11:41 am Post subject:



Joined: 31 May 2012  
Last Visit: 03 Jan 2015



Posts: 557  
Location: berlin

**Tombola wrote:**

**Ras Thavas wrote:**

A question that I'm sure the answer will be "no" to, but have to ask anyway-

Would two of these with the same "stations" saved on their cards stay remotely in sync after a "reset" pulse? I ask as two thoughts crossed my mind; stereo files and timing pulse tracks.

I'm actually more interested in the second option, I know this isn't supposed to be a sampler, but I'd like some way to sync up the signal to the rest of my modular beyond the reset input.

If you want to build a stereo version, you'd just need:

- An outboard DAC for 2 channel audio - mxmxmx's Eurotrash project would be a good place to start in terms of schematic. OR you could use a Teensy 3.1 with a DAC pin.
- Then you'd need to get my code playing stereo .wav files vs .raw, which shouldn't be a huge piece of work. Again, mxmxmx has the code for this work here: <http://forum.pjrc.com/threads/24793-Audio-Library?p=55274&viewfull=1#post55274>
- A bit more panel space, and at least one SMD component - that's why I didn't do it.

I think the easiest way to do this (stereo) would be to just get the pjrc audio adapter and tap the outputs from the codec. you'd still need some way to sync the two channels, but that's no big deal. all the hard work has been done by paul stoffregen; everything else is a no-brainer. as long as you mount the Teensy 3.1 vertically, and maybe mount the Teensy and adapter board side by side, you probably could even do that in 4 HP. then again, compared to other contraptions, soldering a SMD part is easy; also cheaper, quicker and less of a mess.

as to staying in sync: certainly nowhere near sample precise, but there's no noticeable (as in annoying) delay (even with the vanilla wav open source player). that said, it'll somewhat depend on how you do it, how much else you have going on in your code, it takes some time to load the SD card, etc.

<http://ultrabeige.tumblr.com/>

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**monstrinho**

Super Deluxe Wiggler

Posted: Mon Dec 01, 2014 12:24 pm Post subject:



Joined: 17 Nov 2011  
Last Visit: 07 Jan 2015



Posts: 1478  
Location: mundo afora

Is there any easy way to implement an end of file trigger pulse? That's the only feature I could see being really useful that isn't there (apart from the fact that it needs to be easy enough to just reverse the sample in a DAW before loading it to the card).

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**kisielk**

Veteran Wiggler

Posted: Mon Dec 01, 2014 12:32 pm Post subject:



Joined: 24 Dec 2013  
Last Visit: 22 Jan 2015



Posts: 674  
Location: Vancouver, BC

Thanks for making this whole thing open source. I think there's a lot of potential for other kinds of modules that could be built on this simple platform. 😊

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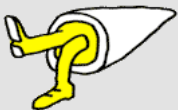
**NS4W**

Veteran Wiggler

Posted: Mon Dec 01, 2014 1:14 pm Post subject:

What about pitch shifting? Or just slowing/speeding things up?

<http://soundcloud.com/ns4w/>



Joined: 12 Jan 2012  
Last Visit: 06 Jan 2015



Posts: 713

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**Tombola**

Super Deluxe Wiggler

Posted: Mon Dec 01, 2014 1:32 pm Post subject:



**monstrinho wrote:**

Is there any easy way to implement an end of file trigger pulse? That's the only feature I could see being really useful that isn't there (apart from a reset button) but it needs to be easy enough to just reverse the sample in a DAW before loading it to the card).

The Reset input can electrically act as a digital CV out

I just wrote a random clock sketch (top pot = speed, bottom pot = randomness) in 5 minutes, and it works. (digitalWrite replaces digitalWrite)

But I don't think I'd want to sacrifice reset in for EOF out.

<http://musicthing.co.uk/modular/>

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Last edited by Tombola on Mon Dec 01, 2014 1:40 pm; edited 1 time in total

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**Tombola**

Super Deluxe Wiggler

Posted: Mon Dec 01, 2014 1:38 pm Post subject:



**NS4W wrote:**

What about pitch shifting? Or just slowing/speeding things up?

That was certainly something I'd like to do - so it becomes a bit 'tape' alongside all the radio.

It's not immediately there in the Teensy audio library, but it shouldn't be too hard to implement.

However, I'm not sure how I'd want to control it with 2 x knobs and 2 x CV inputs.

<http://musicthing.co.uk/modular/>

The Music Thing Module Generator®

Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

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**enole**

Veteran Wiggler

Posted: Tue Dec 02, 2014 12:19 pm Post subject:



any plans to add expanders ?

web site - acousmatic - post techno - modular improvisation diary - current modular system

Joined: 05 Feb 2013  
Last Visit: 04 Jan 2015



Posts: 679  
Location: France (South -West)

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**kisielk**

Veteran Wiggler

Posted: Tue Dec 02, 2014 12:20 pm Post subject:



Joined: 24 Dec 2013  
Last Visit: 22 Jan 2015



Posts: 674  
Location: Vancouver, BC

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**Tombola**

Super Deluxe Wiggler



Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

Posted: Tue Dec 02, 2014 12:23 pm Post subject:

**eoole wrote:**

any plans to add expanders ?

If you install stackable headers in the Teensy, it would be possible to access unused pins by creating some kind of shield connecting round

However, it would start to make the module pretty deep - it would be a trade off there

<http://musicthing.co.uk/modular/>

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**kisielk**

Veteran Wiggler



Joined: 24 Dec 2013  
Last Visit: 22 Jan 2015



Posts: 674  
Location: Vancouver, BC

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Posted: Tue Dec 02, 2014 12:24 pm Post subject:

ah, so the Teensy just hangs off the back of the module? should be no problem then

**Tombola**

Super Deluxe Wiggler



Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

Posted: Tue Dec 02, 2014 12:27 pm Post subject:

**kisielk wrote:**

ah, so the Teensy just hangs off the back of the module? should be no problem then

Yes, you can see one way to do it here: <https://github.com/TomWhitwell/RadioMusic/wiki/Building-the-Radio-Music-module>

If you made a Panel / Front PCB / Rear PCB / Female Headers / Teensy PCB / Stackable Headers / Expander PCB / it would be pretty deep.

<http://musicthing.co.uk/modular/>

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**windspirit**

Super Deluxe Wiggler



Joined: 20 Sep 2012  
Last Visit: 07 Jan 2015

Posted: Tue Dec 02, 2014 4:26 pm Post subject:

You could always just reverse the pin headers for the teensy pins that you want access to and have cables running to an expander.

<http://www.circuitshaman.com/>



Posts: 1410  
Location: krellifornia

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**Tombola**

Super Deluxe Wiggler



Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

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Posted: Wed Dec 03, 2014 7:32 am Post subject:

Rev 2 PCB Files are up: <https://github.com/TomWhitwell/RadioMusic/tree/master/RadioMusicHardware/Gerbers/Rev%20%20Gerbers%20>

These are designed but not yet prototyped. Changes are small but significant.

If it was me, I'd make 10, I wouldn't make 200.

<http://musicthing.co.uk/modular/>

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**ABC**

Common Wiggler



Joined: 29 Jun 2012  
Last Visit: 07 Jan 2015



Posts: 109  
Location: The Street, Metaverse

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Posted: Wed Dec 03, 2014 11:58 am Post subject:

this type of module is the reason why I got into modular DIY.

Hyped.

What's the rough estimated cost of PCB/Panel/Chip?

[bewilderbeast.bandcamp.com](http://bewilderbeast.bandcamp.com)

[profile](#) [pm](#)

**rosch**  
roadkill



Joined: 23 Dec 2010  
Last Visit: 07 Jan 2015



Posts: 627  
Location: doucheland

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Posted: Wed Dec 03, 2014 12:28 pm Post subject:

**Tombola wrote:**

If you made a Panel / Front PCB / Rear PCB / Female Headers / Teensy PCB / Stackable Headers / Expander PCB / it would be pretty deep...

also of course best to do it without one single screw to fix anything.

[profile](#) [pm](#) [email](#)

**Tombola**

Super Deluxe Wiggler



Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

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Posted: Thu Dec 04, 2014 5:27 am Post subject:

**rosch wrote:**

**Tombola wrote:**

If you made a Panel / Front PCB / Rear PCB / Female Headers / Teensy PCB / Stackable Headers / Expander PCB / it would be pretty

also of course best to do it without one single screw to fix anything.

= maximum mojo

<http://musicthing.co.uk/modular/>

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**concretic**

Posted: Fri Dec 05, 2014 7:24 pm Post subject:

You have added this person to your **Ignore List**. Click [HERE](#) to view this post.

Last Visit: 22 Jan 2015



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**wired**

Wiggling with Experience

Posted: Sat Dec 06, 2014 4:19 am Post subject:



Joined: 18 Aug 2012  
Last Visit: 07 Jan 2015



Posts: 467  
Location: Europe - Belgium

Really looking forward to build and play with this one

Wired to Make Noise

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**Blootaka**

Common Wiggler

Posted: Sun Dec 07, 2014 12:58 am Post subject:



Joined: 28 Apr 2013  
Last Visit: 21 Jan 2015



Posts: 118  
Location: Courtenay, BC

This looks great! Would love to see the don't loop option implemented.

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**Tombola**

Super Deluxe Wiggler

Posted: Sun Dec 07, 2014 1:50 pm Post subject:



Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

**Blootaka wrote:**

This looks great! Would love to see the don't loop option implemented.

Don't loop is done...

<https://github.com/TomWhitwell/RadioMusic/wiki/Customise-your-module:-Editing-settings.txt>

<http://musicthing.co.uk/modular/>

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[pm](#)

**nfmitche11**

Learning to Wiggle

Posted: Sun Dec 07, 2014 8:11 pm Post subject:

Joined: 04 Aug 2013  
Last Visit: 21 Jan 2015



Posts: 4

Is there a set price for the kit/completed unit yet?



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**PaulStoffregen**  
Learning to Wiggle

Joined: 29 Aug 2014  
Last Visit: 29 Dec 2014  
Posts: 12

Posted: Sun Dec 07, 2014 10:57 pm Post subject:

On the SD card setup page, it mentions "Load compressed mp3/flac files (unlikely to be possible on this hardware)".

Just wanted to let you know Frank B is working on porting the Real Networks Helix MP3 code. Already a couple people have managed to get files. The code is still pretty rough, but at least it is possible.

However, seeking in MP3 is tricky. The data is stored in 26 millisecond overlapping blocks, which isn't nearly as nice to work with as uncom to eat up chunks of CPU time every 26 ms, which might add some noticeable latency.

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**timpecter**  
Common Wiggler



Joined: 01 Apr 2011  
Last Visit: 06 Jan 2015  
  
Posts: 55

Posted: Mon Dec 08, 2014 6:15 am Post subject:

Sorry if this is a dumb question but is there a schematic on the Git repository?

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**Tomhola**  
Super Deluxe Wiggler



Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015  
  
Posts: 1322  
Location: London, England

Posted: Mon Dec 08, 2014 7:55 pm Post subject:

**timpecter wrote:**

Sorry if this is a dumb question but is there a schematic on the Git repository?

I just added them: <https://github.com/TomWhitwell/RadioMusic/wiki/Rev-2-Schematics>

+ Thanks for that Paul on the MP3 playback, I've updated the wiki page with your notes

<http://musicthing.co.uk/modular/>

**The Music Thing Module Generator®**

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**Monobass**  
thonk.co.uk



Joined: 29 May 2009  
Last Visit: 06 Jan 2015  
  
Posts: 8287  
Location: Brighton, UK

Posted: Wed Dec 10, 2014 1:11 pm Post subject:

**nfmitchell wrote:**

Is there a set price for the kit/completed unit yet?

Well right now... to the best of my knowledge the Kit will not be more expensive than any other Music Thing Kit that I sell.

I'll have a better idea of price in early Jan and it looks like I can get this on sale in late January.

But most likely I won't publish the price until about 20 seconds before I actually put it on sale, because I will have worked it out about 30 s

Thonk - Modular Synth DIY + Eurorack Accessories Store



**Tomhola**  
Super Deluxe Wiggler

Posted: Wed Dec 10, 2014 1:28 pm Post subject:

**nfmitchell wrote:**

Is there a set price for the kit/completed unit yet?

Headlines of the BOM to help you get a sense of this if you don't want to wait for the kit:  
3 x PCBs, including the panel, all slightly smaller than the Spring Reverb triple PCB set  
1 x Teensy - OSHPark were selling them for \$20, currently sold out, available elsewhere



Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015  
  
Posts: 1322  
Location: London, England

- 1 x Good quality Micro SD Card = £5-£20 depending on size
- 2 x Alpha Pots
- 4 x Thonkiconn sockets
- 1 x C&K D6 button
- 1 x rare and obscure but in production YAMAICHI PJS008U-3000-0 SD Card holder
- 1 x Bourns 3362P Trimmer, but you could hack other kinds into the space
- A bunch of male and female pin headers

Everything else is generic components - op amp, resistors, caps, standard LEDs, 5v voltage reg etc.

Full BOM is here: <https://github.com/TomWhitwell/RadioMusic/wiki/BOM---Parts-List>

<http://musicthing.co.uk/modular/>

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**Monobass**  
thonk.co.uk



Joined: 29 May 2009  
Last Visit: 06 Jan 2015  
  
Posts: 8287  
Location: Brighton, UK

Posted: Wed Dec 10, 2014 1:38 pm Post subject:

**Tombola wrote:**

1 x rare and obscure but in production YAMAICHI PJS008U-3000-0 SD Card holder

Good news on this one, will be sell this part as an option with the bare PCBs.

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**bezier**  
Common Wiggler



Joined: 29 Jan 2013  
Last Visit: 06 Jan 2015  
  
Posts: 172  
Location: Germany, Kiel

Posted: Wed Dec 10, 2014 6:23 pm Post subject:

**Monobass wrote:**

Good news on this one, will be sell this part as an option with the bare PCBs.



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**Kummer**  
Common Wiggler



Joined: 28 Aug 2014  
Last Visit: 04 Jan 2015  
Posts: 208  
Location: St. Louis

Posted: Wed Dec 10, 2014 10:35 pm Post subject:

Would anyone be willing to build one of these for me? I'm in the U.S.

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**makers**  
Wiggling with Experience

Posted: Wed Dec 10, 2014 10:38 pm Post subject:

This?

<http://www.mouser.com/ProductDetail/Yamaichi-Electronics/PJS008U-3000-0/?qs=nO3wRANIIvnp3f0XwG2X3A%3D%3D0>

I'd be willing to build a couple for folks.

Sounds: <http://moffenzeef.bandcamp.com>



Joined: 20 Mar 2013  
Last Visit: 04 Jan 2015



Posts: 429  
Location: South Carolina, US

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#### Tombola

Super Deluxe Wiggler

Posted: Thu Dec 11, 2014 7:54 am Post subject:



#### makers wrote:

This?

<http://www.mouser.com/ProductDetail/Yamaichi-Electronics/PJS008U-3000-0/?qs=nO3wRANItvnp3f0XwG2X3A%3D%3D0>

That's great that they're available in the US. Mouser won't sell them in the UK.

US proxy:

#### Yamaichi Electronics PJS008U-3000-0

[See an Error?](#)

##### Real Time Availability

Stock: 1,598 Can Ship Immediately

On Order: 2400 [View Delivery Dates](#)

Factory Lead-Time: 12 Weeks

Enter Quantity:

Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

UK Connection:

#### Yamaichi Electronics PJS008U-3000-0

[See an Error?](#)

##### Real Time Availability

Restricted Availability

##### Pricing (GBP)

<http://musicthing.co.uk/modular/>

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#### wired

Wiggling with Experience

Posted: Thu Dec 11, 2014 12:28 pm Post subject:

Will wait for Thonk kit



Wired to Make Noise



Joined: 18 Aug 2012  
Last Visit: 07 Jan 2015



Posts: 467  
Location: Europe - Belgium

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**Lachlan C.**  
Learning to Wiggle

Posted: Sat Dec 13, 2014 3:48 pm Post subject:

Joined: 11 Feb 2012  
Last Visit: 22 Jan 2015



Posts: 19

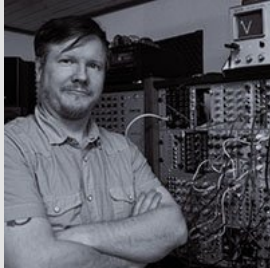
Amazing work Tom! Not just on the project but the incredibly thorough support documentation. Really looking forward to building and using

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**11**  
Veteran Wiggler

Posted: Sat Dec 13, 2014 8:13 pm Post subject:



would buy a kit! 😊

Konekonekone

Joined: 08 May 2010  
Last Visit: 13 Dec 2014



Posts: 627  
Location: Turku, Finland, EU

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**inlifeindeath**  
Common Wiggler

Posted: Sat Dec 13, 2014 11:12 pm Post subject:

any chance of bringing a loop/don't loop switch to the panel. extra HP should be no issue for such a cool project!

<http://www.youtube.com/user/borisandfef>

Joined: 12 Aug 2011  
Last Visit: 04 Jan 2015



Posts: 151  
Location: Albuquerque, NM, USA

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**4floorsofwhores**  
Common Wiggler

Posted: Sun Dec 14, 2014 3:03 am Post subject:

**inlifeindeath wrote:**

any chance of bringing a loop/don't loop switch to the panel. extra HP should be no issue for such a cool project!

^^^this

Careful now

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**Tombola**  
Super Deluxe Wiggler

Posted: Sun Dec 14, 2014 4:26 am Post subject:



**4floorsofwhores wrote:**

**inlifeindeath wrote:**

any chance of bringing a loop/don't loop switch to the panel. extra HP should be no issue for such a cool project!

^^^this

Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

Could you say more about how you would use a loop/no loop switch?

I'm trying to visualise the kind of patches you're thinking of

<http://musicthing.co.uk/modular/>

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**concretic**

Posted: Sun Dec 14, 2014 5:27 am Post subject:

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Last Visit: 22 Jan 2015



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**mxmxmx**

Veteran Wiggler

Posted: Sun Dec 14, 2014 5:34 am Post subject:



Joined: 31 May 2012  
Last Visit: 03 Jan 2015



Posts: 557  
Location: berlin

**concretic wrote:**

**Tombola wrote:**

**4floorsofwhores wrote:**

**inlifeindeath wrote:**

any chance of bringing a loop/don't loop switch to the panel. extra HP should be no issue for such a cool project!

^^^this

Could you say more about how you would use a loop/no loop switch?

I'm trying to visualise the kind of patches you're thinking of

I would hack loop/noloop with 2 files.. one with long silence on the end of sample...

having played around with this for some time now i'd say "loop" is largely superfluous; in a modular context, nothing keeps you from re-triggering a sample, ie no clicks etc.

<http://ultrabeige.tumblr.com/>

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**windspirit**

Super Deluxe Wiggler



Joined: 20 Sep 2012  
Last Visit: 07 Jan 2015



Posts: 1410  
Location: krellifornia

Posted: Sun Dec 14, 2014 6:29 am Post subject:

I kind of want to make 2 of these and mock up an over-lap add grainular scenario.

<http://www.circuitshaman.com/>

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**Tombola**

Super Deluxe Wiggler



Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

Posted: Sun Dec 14, 2014 7:11 am Post subject:

**windspirit wrote:**

I kind of want to make 2 of these and mock up an over-lap add grainular scenario.

You could probably do that in just one module if you hack the firmware. The Teensy has the grunt to read 2 x separate files at once, and to output. You'd just need to work out the interface - how you'd control the process with 2 x CV and 1 x trigger and 2x knobs and one button.

<http://musicthing.co.uk/modular/>

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**windspirit**

Super Deluxe Wiggler



Joined: 20 Sep 2012  
Last Visit: 07 Jan 2015

Posted: Sun Dec 14, 2014 8:35 am Post subject:

I thought of that, I was thinking it would just time the space in between triggers and use that as the grain size but I also kind of like the idea of using that as a basis for grainular - it's more modular that way, start from there and make it weirder.

<http://www.circuitshaman.com/>



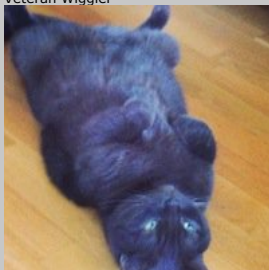
Posts: 1410  
Location: krellifornia

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**Jonachi**  
Veteran Wiggler

Posted: Sun Dec 14, 2014 9:31 am Post subject:



**Monobass wrote:**

Have started purchasing for the first run of kits. January definitely seems possible right now.

Still possible?

I'm allergic to nuts!

<http://vamusic.bandcamp.com/>  
<http://soundcloud.com/vikingsade>  
<http://soundcloud.com/jonachi-1>

Joined: 22 Jul 2013  
Last Visit: 22 Jan 2015



Posts: 596  
Location: Sweden

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**lessavyfav**  
Super Deluxe Wiggler

Posted: Sun Dec 14, 2014 10:15 pm Post subject:



scited

Joined: 02 Jun 2010  
Last Visit: 04 Jan 2015



Posts: 1016  
Location: Brooklyn, NY

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**dan\_k**  
Ultra Wiggler

Posted: Tue Dec 16, 2014 12:16 am Post subject:



This looks fantastic Tom! Thanks for all your hard work on this. 🐾

Looking forward to picking up one or two kits when they become available.

Joined: 02 Dec 2009  
Last Visit: 22 Jan 2015



Posts: 851  
Location: Vancouver, Canada

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**lms.ktp**  
the slowest growing eurorack owner

Posted: Tue Dec 16, 2014 3:39 am Post subject:



Great work! Jus entered the Thonk wishlist 🙌

<http://soundcloud.com/aica8-bit>

Joined: 25 Aug 2011  
Last Visit: 04 Jan 2015



Posts: 158

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**KNYST**  
hiding in the forest

Posted: Wed Dec 17, 2014 2:55 pm Post subject:

I'm definitely in for this.

Thanks Tom for making these clever little things 🐱





NOISE HEALS.  
patch responsibly.  
LISTEN | WATCH  
>> The KNYST GONG performances!

Joined: 26 Jan 2009  
Last Visit: 01 Jan 2015



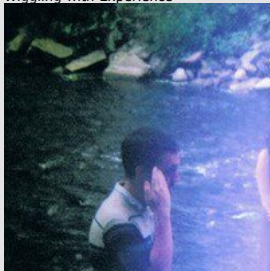
Posts: 2748  
Location: the Taiga, Sweden

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**pwrnml**  
Wiggling with Experience

Posted: Wed Dec 17, 2014 3:15 pm Post subject:



Joined: 07 Dec 2013  
Last Visit: 22 Jan 2015



Posts: 292  
Location: Philadelphia

**Tombola wrote:**

**NS4W wrote:**

What about pitch shifting? Or just slowing/speeding things up?

That was certainly something I'd like to do - so it becomes a bit 'tape' alongside all the radio.

It's not immediately there in the Teensy audio library, but it shouldn't be too hard to implement.

However, I'm not sure how I'd want to control it with 2 x knobs and 2 x CV inputs.

Just wanted to second that. That's the only thing keeping me from immediately jumping on this. I love having complex patches where I can mix halfway through eg: <http://instagram.com/p/ppHHOdAHpr/>

I don't need much in a sample player (phonogene is there for complex glitchy stuff) but some sort of tuning knob (even without cv) is kind of useful though. Regardless this looks insanely great especially with that hp.

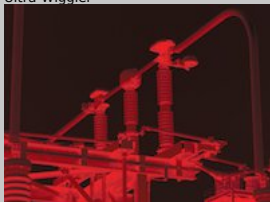
Also can't wait to get the turing machine and spring reverb once they're back in stock at ctrl-mod.

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**waveglider**  
Ultra Wiggler

Posted: Wed Dec 17, 2014 3:33 pm Post subject:



Joined: 28 Feb 2013  
Last Visit: 22 Jan 2015



Posts: 751  
Location: Oakland

I think the feature set as it stands is perfect for 4hp. The concept behind the module is brilliant and all these extra features would be best served in a separate module/project.

My Modular | My Audio

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**MrNovember**  
Wiggling with Experience

Posted: Wed Dec 17, 2014 3:43 pm Post subject:



Joined: 21 Nov 2013  
Last Visit: 22 Jan 2015



Posts: 268  
Location: Outside Toronto, Ontario

Starting to think I may replace my Nebulae with one of these + a Phonogene, or the upcoming MI Clouds if it is in fact some sort of granular processor.

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**KNYST**  
hiding in the forest

Posted: Wed Dec 17, 2014 3:53 pm Post subject:

**pwrnml wrote:**

**Tombola wrote:**



Joined: 26 Jan 2009  
Last Visit: 01 Jan 2015



Posts: 2748  
Location: the Taiga, Sweden

**NS4W wrote:**

What about pitch shifting? Or just slowing/speeding things up?

That was certainly something I'd like to do - so it becomes a bit 'tape' alongside all the radio.

It's not immediately there in the Teensy audio library, but it shouldn't be too hard to implement.

However, I'm not sure how I'd want to control it with 2 x knobs and 2 x CV inputs.

Just wanted to second that.

Me third. Would be sweet.

NOISE HEALS.

patch responsibly.

LISTEN | WATCH

>> The KNYST GONG performances!

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**MrNovember**

Wiggling with Experience



Joined: 21 Nov 2013  
Last Visit: 22 Jan 2015



Posts: 268  
Location: Outside Toronto, Ontario

Posted: Wed Dec 17, 2014 3:58 pm Post subject:

**KNYST wrote:**

**pwrnml wrote:**

**Tombola wrote:**

**NS4W wrote:**

What about pitch shifting? Or just slowing/speeding things up?

That was certainly something I'd like to do - so it becomes a bit 'tape' alongside all the radio.

It's not immediately there in the Teensy audio library, but it shouldn't be too hard to implement.

However, I'm not sure how I'd want to control it with 2 x knobs and 2 x CV inputs.

Just wanted to second that.

Me third. Would be sweet.

Me fourth. This would be sweet.

A 4hp Radio Music Tape expander with pitch and speed knobs would be amazing

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**mapmap**

Wiggling with Experience



Joined: 09 Feb 2012  
Last Visit: 22 Jan 2015



Posts: 323  
Location: portland, or

Posted: Wed Dec 17, 2014 7:43 pm Post subject:

That would be a really amazing feature.

mapmap.ch

dustbreeding.com

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**sempervirent**

Super Deluxe Wiggler



Joined: 06 Oct 2010  
Last Visit: 21 Jan 2015



Posts: 2583  
Location: Amerika

Posted: Wed Dec 17, 2014 8:35 pm Post subject:

Doing a run of aluminum panels:

<http://grayscale.info/panels/music-thing-radio-music/>

Will also do a run of PCBs once the v2 boards have been validated.

Grayscale Modular + Facebook + ModularGrid

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**windspirit**

Super Deluxe Wiggler

Posted: Wed Dec 17, 2014 9:59 pm Post subject:

Looks good! Dig the new avatar too 😊

<http://www.circuitshaman.com/>



Joined: 20 Sep 2012  
Last Visit: 07 Jan 2015



Posts: 1410  
Location: krellifornia

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**SpunRaddish**  
Wiggling with Experience

Posted: Sat Dec 20, 2014 12:20 pm Post subject:



I almost forgot to ask an important question - is there anything that relies on normalization, because I'm thinking of integrating it into a banana

Joined: 10 Sep 2012  
Last Visit: 06 Jan 2015



Posts: 273  
Location: Brooklyn, NY

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**Tombola**  
Super Deluxe Wiggler

Posted: Sat Dec 20, 2014 12:44 pm Post subject:



**SpunRaddish wrote:**

I almost forgot to ask an important question - is there anything that relies on normalization, because I'm thinking of integrating it into a banana

You should be fine, none of the socket switches are used

<http://musicthing.co.uk/modular/>

The Music Thing Module Generator®

Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

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**SpunRaddish**  
Wiggling with Experience

Posted: Sat Dec 20, 2014 12:54 pm Post subject:



Excellent, I'll be picking up 3 for a future project then!

Joined: 10 Sep 2012  
Last Visit: 06 Jan 2015



Posts: 273  
Location: Brooklyn, NY

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**rosch**  
roadkill

Posted: Sat Dec 20, 2014 4:33 pm Post subject:



Thonk are you gonna offer full kits with Grayscale panels too? I'm interested in full kit but would really prefer metal face.

Joined: 23 Dec 2010  
Last Visit: 07 Jan 2015



Posts: 627  
Location: doucheland

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**Monobass**  
thonk.co.uk

Posted: Sun Dec 21, 2014 3:21 am Post subject:



Joined: 29 May 2009  
Last Visit: 06 Jan 2015



Posts: 8287  
Location: Brighton, UK

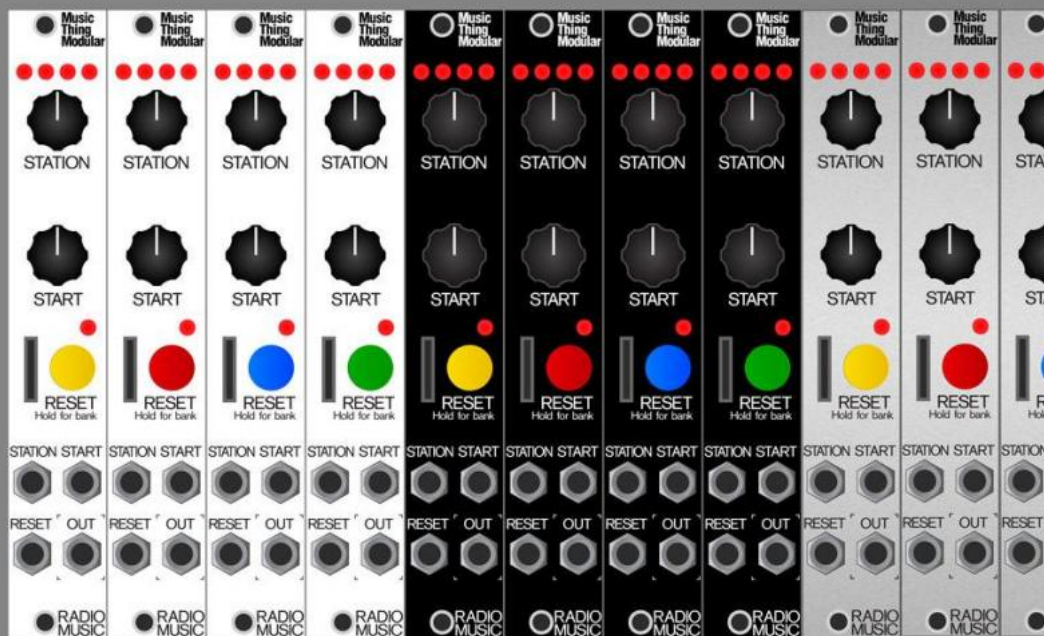
I'll have more details in January (I'm about to actually take some time away from the interwebs 😊) but I'll be stocking three types of panel as the Spring Reverb

- A) Thonk Aluminium
- B) Black PCB panel
- C) White PCB panel

With a choice of red, green, blue or yellow button/switch.

I'll be selling both

- 1) full kit with panel and switch choice
- 2) Panel/PCB set with some bundled parts (Micro SD card slot and coloured switch probably)



MUSIC THING MODULAR  
**RADIO MUSIC** 4HP 16b 4  
PLAYBACK  
AVAILABLE EARLY 2015

Thonk - Modular Synth DIY + Eurorack Accessories Store

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**PaulStoffregen**  
Learning to Wiggle

Posted: Sun Dec 21, 2014 7:18 am Post subject:

Joined: 29 Aug 2014  
Last Visit: 29 Dec 2014  
Posts: 12

**Tombola wrote:**

**windspirit wrote:**

I kind of want to make 2 of these and mock up an over-lap add grainular scenario.

You could probably do that in just one module if you hack the firmware. The Teensy has the grunt to read 2 x separate files at once and output two files into one output.

....

If you try playing more than 1 stream, I highly recommend using a higher quality SD card. While developing the Teensy Audio Library, I tested many cards and even put a benchmark in the library, which you can open in Arduino from File > Examples > Audio > HardwareTesting > SdCardTest.

SanDisk Ultra consistently preforms much better than most others. They're easy to spot, with bright red+gray color. Beware counterfeits, especially on Amazon.

Speed ratings on SD cards measure only sequential access, meant for digital cameras to read or write a single large file at a time. Many "Class 10" cards actually have very high "seek" latency, probably due to poor buffer management inside the card's controller. When playing multiple streams, reads from each file are interleaved, and occasional reads from the FAT filesystem tables get mixed in too, resulting in an access pattern that is not the possible case for a card optimized only for sequential access. Better SD cards handle this well, but the cheapest ones do poorly.

The good news is even the cheapest, worst performing SD cards are able to play a single file very well.

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**Monobass**  
thonk.co.uk

Posted: Sun Dec 21, 2014 7:27 am Post subject:



Joined: 29 May 2009  
Last Visit: 06 Jan 2015



Posts: 8287  
Location: Brighton, UK

I bought some of the very cheapest cards on ebay to try out with Radio Music just to see what happened.. I'd definitely avoid unbranded cards.

SanDisk and Kingston have performed very reliably though.

Thonk - Modular Synth DIY + Eurorack Accessories Store

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**PaulStoffregen**  
Learning to Wiggle

Posted: Sun Dec 21, 2014 7:27 am Post subject:

Joined: 29 Aug 2014  
Last Visit: 29 Dec 2014  
Posts: 12

Arduino's SD library supports SD and SDHC, but not SDXC (more than 32 GB).

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**mxmxmx**  
Veteran Wiggler

Posted: Sun Dec 21, 2014 8:29 am Post subject:

MUSIC THING MODULAR  
RADIO MUSIC 4HP 16b 44k SAMPLE  
PLAYBACK MODULE  
AVAILABLE EARLY 2015

not to be pedantic, but the more accurate description would be "12 bit 44.1kHz"; cf. "supported hardware" -- <http://www.pjrc.com/teensy/>

<http://ultrabeige.tumblr.com/>



Joined: 31 May 2012  
Last Visit: 03 Jan 2015



Posts: 557  
Location: berlin

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**Monobass**  
thonk.co.uk



Joined: 29 May 2009  
Last Visit: 06 Jan 2015

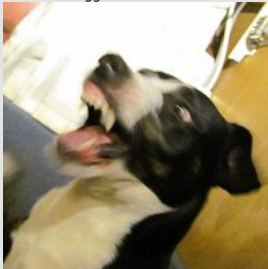


Posts: 8287  
Location: Brighton, UK

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**b-art**  
Common Wiggler



Joined: 24 Jul 2014  
Last Visit: 06 Jan 2015  
Posts: 146  
Location: Europe

Posted: Sun Dec 21, 2014 9:02 am Post subject:

I too want to add something about being able to pitch. As much as i would like this feature too... it makes less sense when you keep in mind this modules main function. Sure it's very handy for drum loops, voices etc. but...

The pitch settings might be way off as soon as you switch to a different station. In that sense the pitching becomes an obstacle for switching (well documented) philosophy behind this module is that it is a Radio Station Module not a sampler per se.

So in my humble opinion and without trying to tell anybody what to do, I would either make a slightly other version of this PCB and/or it's a Sampler approach or make an expander option.

It might feel counter intuitive to not ask for a feature you desire but in this case i think it would be wise to do so...

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**Monobass**  
thonk.co.uk



Joined: 29 May 2009  
Last Visit: 06 Jan 2015



Posts: 8287  
Location: Brighton, UK

Posted: Sun Dec 21, 2014 9:05 am Post subject:

Just consider the module a framework for whatever you want it to be, with 'Radio Music' being the default setting.

And also everyone please keep calling out the features you desire, it doesn't mean Tombola will implement them, but someone else likely with nature is this modules greatest strength

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**MrNovember**  
Wiggling with Experience

Posted: Sun Dec 21, 2014 1:33 pm Post subject:

Are the black panels a matte black as in Make Noise's black PCBs? If so I'll take one with a red button please!

Also I want to modify my suggestion for an expansion to two different expansions. Both 3 or 4 hp. One for pitch with an attenuverter and o





attenuverter. Or just do one 6 to 8 hp expansion with all of that and end of sample trigger

Joined: 21 Nov 2013  
Last Visit: 22 Jan 2015



Posts: 268  
Location: Outside Toronto, Ontario

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**monstrinho**  
Super Deluxe Wiggler

Posted: Sun Dec 21, 2014 1:52 pm Post subject:



**Monobass wrote:**

Just consider the module a framework for whatever you want it to be, with 'Radio Music' being the default setting.

And also everyone please keep calling out the features you desire, it doesn't mean Tombola will implement them, but someone else likely will. nature is this modules greatest strength

I really like the module as it stands, but if it is possible to include an expansion header on the PCB to make a few additional features possible honestly don't know how feasible this is, which features would require a modification of the firmware etc. I'd love to have an end of file trig current front panel features, for example. Voltage control of things like sample pitch and start/end time would also be cool Having a front p between loop/don't loop would also be useful. Again, I really don't mind if these things are never implemented. I think the design as it stands thought out. I will certainly buy a couple kits even if this never evolves beyond the current design.

Joined: 17 Nov 2011  
Last Visit: 07 Jan 2015



Posts: 1478  
Location: mundo afora

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**Monobass**  
thonk.co.uk

Posted: Sun Dec 21, 2014 4:05 pm Post subject:



**MrNovember wrote:**

Are the black panels a matte black as in Make Noise's black PCBs?

No they're glossy. I won't be doing any matte panels but anyone could get a run of those done from the open source gerbers.

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Joined: 29 May 2009  
Last Visit: 06 Jan 2015



Posts: 8287  
Location: Brighton, UK

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**NS4W**  
Veteran Wiggler

Posted: Sun Dec 21, 2014 6:20 pm Post subject:

Does the reset function only reset the current playing station?

<http://soundcloud.com/ns4w/>



Joined: 12 Jan 2012  
Last Visit: 06 Jan 2015



Posts: 713

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**MrNovember**  
Wiggling with Experience

Posted: Sun Dec 21, 2014 10:41 pm Post subject:

**Monobass wrote:**

**MrNovember wrote:**

Are the black panels a matte black as in Make Noise's black PCBs?

No they're glossy. I won't be doing any matte panels but anyone could get a run of those done from the open source gerbers.

Hmmm I guess it'll be Greyscale for me then 🙄



Joined: 21 Nov 2013  
Last Visit: 22 Jan 2015



Posts: 268  
Location: Outside Toronto, Ontario

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**kisielk**

Veteran Wiggler



Joined: 24 Dec 2013  
Last Visit: 22 Jan 2015



Posts: 674  
Location: Vancouver, BC

Posted: Sun Dec 21, 2014 10:45 pm Post subject:

**monstrinho wrote:**

**Monobass wrote:**

Just consider the module a framework for whatever you want it to be, with 'Radio Music' being the default setting.

And also everyone please keep calling out the features you desire, it doesn't mean Tombola will implement them, but someone else as the open source nature is this modules greatest strength

I really like the module as it stands, but if it is possible to include an expansion header on the PCB to make a few additional features would be great. I honestly don't know how feasible this is, which features would require a modification of the firmware etc. I'd love a file trigger without sacrificing the current front panel features, for example. Voltage control of things like sample pitch and start/end would be cool. Having a front panel switch to choose between loop/don't loop would also be useful. Again, I really don't mind if these things are implemented. I think the design as it stands is simple, elegant and well thought out. I will certainly buy a couple kits even if this is beyond the current design.

I already asked about this (and got an answer) a few pages back. It's possible if you use some longer pin headers.

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**Monobass**

thonk.co.uk



Joined: 29 May 2009  
Last Visit: 06 Jan 2015



Posts: 8287  
Location: Brighton, UK

Posted: Mon Dec 22, 2014 4:12 am Post subject:

**MrNovember wrote:**

**Monobass wrote:**

**MrNovember wrote:**

Are the black panels a matte black as in Make Noise's black PCBs?

No they're glossy. I won't be doing any matte panels but anyone could get a run of those done from the open source gert

Hmmm I guess it'll be Greyscale for me then 🙄

It's an open source project MrNovember, you can do it yourself.

Thonk - Modular Synth DIY + Eurorack Accessories Store

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**CliffordMilk**

Learning to Wiggle

Joined: 02 May 2013  
Last Visit: 07 Jan 2015



Posts: 49  
Location: Brighton, UK

Posted: Mon Dec 22, 2014 6:42 am Post subject:

Great idea. Definitely worth a place in the rack. I already use a similar technique for live sample shifting with an Octatrack so it would be great for modular.

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**MrNovember**

Wiggling with Experience

Posted: Mon Dec 22, 2014 10:50 am Post subject:

**Monobass wrote:**

**MrNovember wrote:**

**Monobass wrote:**

**MrNovember wrote:**

Are the black panels a matte black as in Make Noise's black PCBs?



Joined: 21 Nov 2013  
Last Visit: 22 Jan 2015



Posts: 268  
Location: Outside Toronto, Ontario

No they're glossy. I won't be doing any matte panels but anyone could get a run of those done from the open source gerbers.

Hmmm I guess it'll be Greyscale for me then 🙄

It's an open source project MrNovember, you can do it yourself.

I may try to do it myself but it's really not a big deal. I was mostly asking because I don't want to order a black one and then find out it's g

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**Tombola**  
Super Deluxe Wiggler

Posted: Mon Dec 22, 2014 1:03 pm Post subject:



RE: Feature requests, bug reports, documentation:

If you can leave these in the Github issue tracker, that would be super helpful for me and anyone else developing on the platform.

You can also see known & fixed issues there, for hardware & firmware:

<https://github.com/TomWhitwell/RadioMusic/issues>

The documentation is also a Wiki, so you can edit / improve / clarify as we go along. I'd really like (it if someone decided to) to turn this thread into a Machine thread answers every question dozens of times.

<https://github.com/TomWhitwell/RadioMusic/wiki>

<http://musicthing.co.uk/modular/>

The Music Thing Module Generator®

Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

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**meatbeatz**  
Super Deluxe Wiggler

Posted: Mon Dec 22, 2014 10:26 pm Post subject:



**MrNovember wrote:**

I was mostly asking because I don't want to order a black one and then find out it's glossy.

you could always use 1200 grit and rub off the gloss. Or sand and paint it matte black. easy.

Amalgamod - Modular Synth Cases

Joined: 17 Mar 2012  
Last Visit: 22 Jan 2015



Posts: 1108  
Location: Melbourne, Australia

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**MrNovember**  
Wiggling with Experience

Posted: Mon Dec 22, 2014 10:27 pm Post subject:



**meatbeatz wrote:**

**MrNovember wrote:**

I was mostly asking because I don't want to order a black one and then find out it's glossy.

you could always use 1200 grit and rub off the gloss. Or sand and paint it matte black. easy.

Interesting. I never considered that before. Might go try that on my Dirt Filter. Thanks

Joined: 21 Nov 2013  
Last Visit: 22 Jan 2015



Posts: 268  
Location: Outside Toronto, Ontario

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**meatbeatz**  
Super Deluxe Wiggler

Posted: Mon Dec 22, 2014 11:09 pm Post subject:



Joined: 17 Mar 2012  
Last Visit: 22 Jan 2015



Posts: 1108  
Location: Melbourne, Australia

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**NS4W**

Veteran Wiggler

Posted: Tue Dec 23, 2014 9:32 am Post subject:

I think this module will pair well with Ginko Synthese Sampleslicer

<http://soundcloud.com/ns4w/>



Joined: 12 Jan 2012  
Last Visit: 06 Jan 2015



Posts: 713

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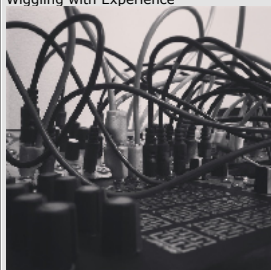
**MrNovember**

Wiggling with Experience

Posted: Tue Dec 23, 2014 10:48 am Post subject:

**NS4W wrote:**

I think this module will pair well with Ginko Synthese Sampleslicer



A limited pre-order for the Sampleslicer is up on their site  
And I have to agree, it definitely would pair well

Joined: 21 Nov 2013  
Last Visit: 22 Jan 2015



Posts: 268  
Location: Outside Toronto, Ontario

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**Tombola**

Super Deluxe Wiggler

Posted: Fri Dec 26, 2014 5:07 am Post subject:

**NS4W wrote:**

I think this module will pair well with Ginko Synthese Sampleslicer



I don't have one myself, but I think it would work very well as a source for the Phonogene

<http://musicthing.co.uk/modular/>

The Music Thing Module Generator®

Joined: 23 Jan 2011  
Last Visit: 22 Jan 2015



Posts: 1322  
Location: London, England

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**wonkychris**

Learning to Wiggle

Posted: Fri Dec 26, 2014 11:23 am Post subject:

Joined: 25 Jun 2014

[quote="Tombola"]

Last Visit: 06 Jan 2015  
Posts: 19  
Location: hebden

NS4W wrote:

I don't have one myself, but I think it would work very well as a source for the Phonogene

Phew! Thats exactly what I had in mind for it...

<http://soundcloud.com/wonkychris>

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**PaulStoffregen**  
Learning to Wiggle

Posted: Mon Dec 29, 2014 1:46 pm Post subject:

Joined: 29 Aug 2014  
Last Visit: 29 Dec 2014  
Posts: 12

Here's an example of another project, showing some of the stuff you can do with the codec board.

<http://tomashq.com/?p=1228>

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**myecholalia**  
Common Wiggler

Posted: Thu Jan 01, 2015 11:27 pm Post subject:



Awsome module! Unfortunately, I'm completely useless when it comes to DIY.

Will the Radio Music be available as a ready-made module? Or would someone volunteer building one for me (obviously paying for it)?

<http://soundcloud.com/brahminykite>

WTB: FOH Choices

Joined: 21 Jan 2013  
Last Visit: 22 Jan 2015

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Posts: 169  
Location: Singapore

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