miidii

manual

random works

Overview

miidii lets you use midi to play the alternate modes of Mannequins Just Friends.

Connect the modules via i2c and use midi trs (type a) or usb-c to play Just Friends either polyphonically or as six monosynth voices.

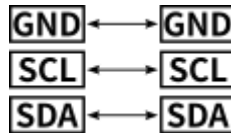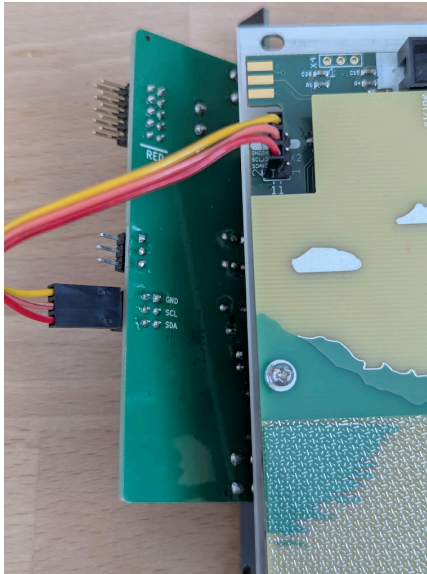With the switch in the middle position, Just Friends is played polyphonically.

In the down position, each of the six Just Friends voices is controlled by a separate midi channel.

In the up position the module is disabled and Just Friends is returned to its default mode.

miidii is a midi client which does not provide power. To send it midi through the usb-c socket it must be connected to a midi host.

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Installation

1. Turn off your eurorack system before installing the module

2. Connect an i2c cable from Just Friends to miidii. Both modules have two of each pin to allow you to daisy chain i2c modules together but you only need to connect one of each between the two modules. Remaining i2c pins can be left unconnected if you don't have other i2c modules

GND ←→ GND
SCL ←→ SCL
SDA ←→ SDA

3. Power on your eurorack system and enjoy your new module

If you have multiple i2c modules you can daisy chain them together. For example, connect one set of i2c pins from miidii to one Just Friends module and the other set to another Just Friends module. You can control up to 2 Just Friends modules using miidii by setting one Just Friends to Address 2 using the miidii web configuration tool.

Note to avoid damage to miidii and other modules in your system, please ensure that no other modules or metal case components are touching the miidii circuit board when you install it.

Usage

To get started you will probably want Just Friends set to 'sound' in 'transient' mode with 'intone' (speed) fully counterclockwise and 'time' (release) at around 50%.

Once you get a feel for it, experiment with different settings and modes.

The internal envelope of Just Friends is triggered upon receiving midi 'note on' messages using the provided note and velocity.

miidii uses midi channel 1 by default but you can change this and other settings by connecting a usb cable to your computer and using the web configuration tool at
https://random-works.co.uk/modules/miidii/configure.html

Midi Support

Midi Note On messages trigger the specified note at the specified velocity/volume
Note Off messages end notes when Just Friends is in Sustain mode.
A Note On message with a velocity of 0 is treated as a Note Off message.

Miidii supports midi running status which allows multiple messages of the same type (e.g. Note On) to be sent without having to specify the message type each time.

Midi pitch bend is supported with a range of +/- 2 semitones.

Midi CC 16 can be used to control the Run value of Just Friends to further change the sound. CC values of 0 to 64 translate to 0v to 5v and CC 64 to 128 to 0v to -5v.

Midi Tuning

Miidii supports midi tuning for custom tunings and microtonal music. Bulk Tuning Request messages will be answered with Bulk Tuning Response messages to retrieve tuning tables from miidii and Single Note Tuning Change messages can be sent to miidii to change the tuning for one or more notes in a tuning table.

Miidii supports 128 tuning tables (0 to 127) although table 0 cannot be altered. Tables are stored on the module and persist when powering off.

Use device ID 17 (0x11) when sending tuning messages to miidii.

You can use midi CC 17 to select the current tuning table.The selected tuning table will be used for all connected modules.

There is a useful web based tool available at https://lozjackson.github.io/mts-manager/ which can be used to configure tuning tables.

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FAQ

What type of midi cable do i need?
You can use a midi type-a trs cable.

Miidii is a usb midi client so you need to connect it to a usb midi host if you want to use it via the usb-c socket.

Can i use a longer i2c cable?
Yes, any 2.54mm (0.1") pitch female/female jumper wire (sometimes known as a dupont cable) can be used.

You may run into problems with very long cables so keep it as short as you can.

You should be able to get one from an electronics hobbyist / maker store such as Adafruit or Pimoroni.

I'm having trouble with the configuration tool
Google Chrome works best - make sure you give it permission to use midi devices if prompted.

If you are using Windows, close any other applications that may be using midi.

My Just Friends module freezes when miidii talks to it
Please ensure you have the latest firmware installed on your Just Friends module (currently 4.6) from https://github.com/whimsicalraps/Just-Friends/
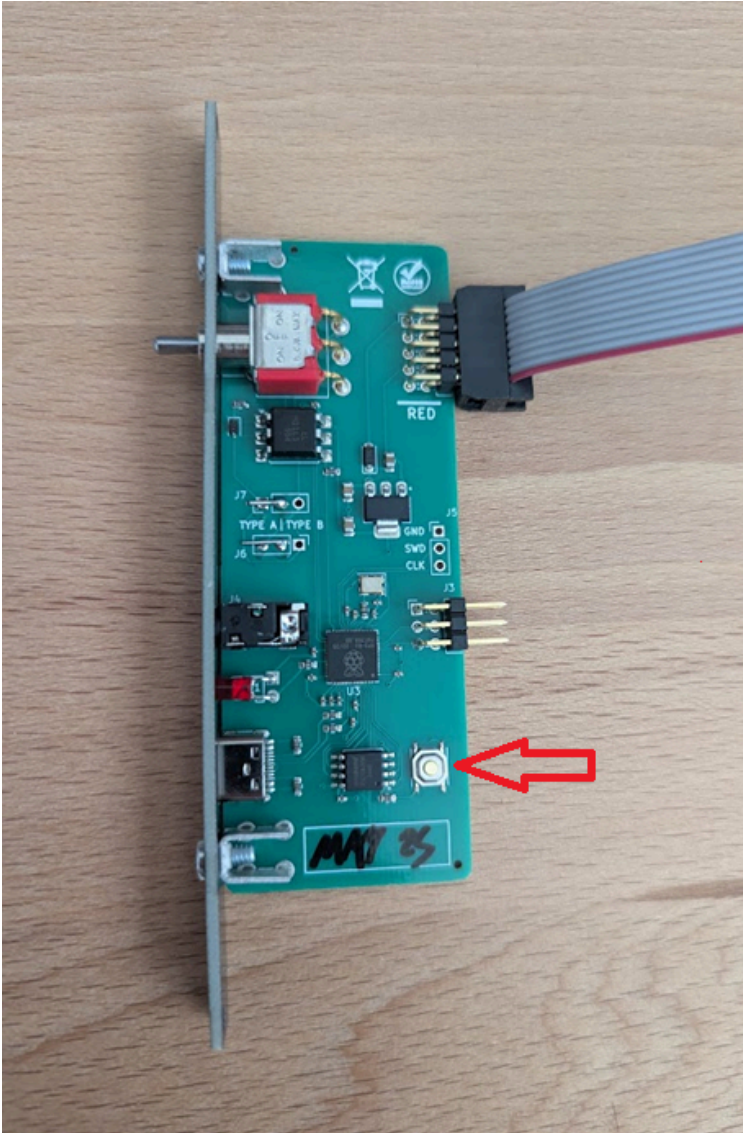
Technical Details

width: 2HP

depth: 55mm

power: 12v 35mA, -12v 0mA, 5v 0mA

Updating Firmware

To update the firmware on the module:

1. Start with your eurorack system turned off and the power cable connected to the module.
2. While holding down the button on the miidii circuit board, turn on your eurorack system.

3. Connect a USB cable from the module to a computer
4. The module will now show as a drive on your computer containing a .HTM and .TXT file. Copy the firmware UF2 file onto the module. When it has finished, the module will disconnect and reboot with the new firmware.

Note from miidii firmware 1.0 you can enter firmware programming mode from the configuration tool at https://random-works.co.uk/modules/miidii/configure.html and no longer need to remove the module from your system and hold the button (steps 1 & 2).