GYRO

Controlling VST and MIDI instruments with GYRO

Table Of Contents

Introduction

Gyro has a powerful Chord and Pattern system which can be used to control other instruments, including Plugins in a DAW, or external instruments connected via a MIDI Interface.

Each DAW has a different method for routing MIDI between VST instruments, so we have created this document to provide step-by-step instructions for each DAW.

Unfortunately, some DAWs do not have the ability to route MIDI to individual instruments, due to a lack of channel filtering options. Although there are workarounds for the affected DAWs, these workarounds require the installation of 3rd party software, can be bug-prone, and are generally not recommended.

DAW	Multichannel MIDI Routing
Bitwig	Yes
Cubase	Yes
FL Studio	No
Live	No
Logic	Yes
Reaper	Yes
Studio One	Yes

The MIDI Standard

MIDI allows you to create connections between devices inside of the DAW, or to connect to external devices.

Although the standard was created in the 1980's, it is still quite powerful and allows for a variety of different connections, even controlling multiple instruments using a single port.

Each MIDI port can support up to 16 instruments at a time, using MIDI Channels. Most DAWs allow for users to filter these channels per instrument, although unfortunately, DAWs like Ableton Live and FL Studio are missing this filtering functionality, leading to the necessity for workarounds with additional 3rd party tools.

This manual will show the specific setup steps for using MIDI channels in each DAW.

Gyro uses MIDI channels 1-4 to send multiple streams of notes, corresponding to the colors in Gyro's sequencer.

Gyro's Colors Explained

Gyro's Sequencer has four colors, which are used to control the different sound engines in the instrument. Each of these colors is used for a different part of a loop. Following these rules will lead to better results when controlling external instruments. Of course, there are no rules, and you can choose to connect whatever types of instruments and presets that you want.

Red (Channel 1)

This channel is used primarily for basslines. The randomization engine will usually focus on playing the root note of a chord on the red channel, so choosing a bass synth or preset will work best here.

Yellow (Channel 2)

The yellow channel is the 'hook' of the pattern. Choosing a more prominent sound, like a pluck, lead, or a short pad, will work best on this channel.

Green (Channel 3)

The green channel is used to fill out the loop with additional harmonic content, not to overpower the hook, but to accentuate it. Choosing a quieter pad or pluck is a good choice.

Purple (Channel 4)

The final channel is used to sprinkle additional sounds on top of the loop, with this channel it's a good idea to get more experimental, try using unusual presets, which are more effects based, or with a lot of modulation.

Gyro's MIDI Filter

As mentioned in the introduction, various DAWs do not support sending multiple MIDI channels from one sequencer plugin, like Gyro. To help with this issue, Gyro has a build in MIDI filter, which controls which sequencer lanes will be sent to the MIDI output.

The filter is located in the menu in the bottom left corner of the instrument. Choose which channels go to the output with the switches labeled 'A' through 'D'.
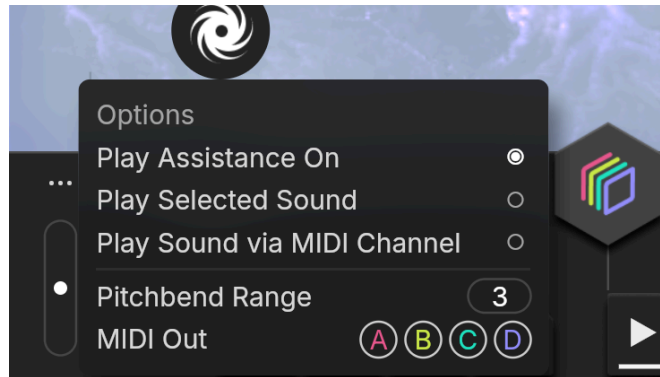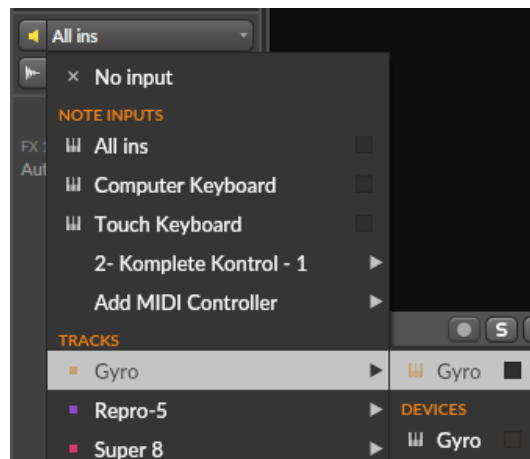
Bitwig

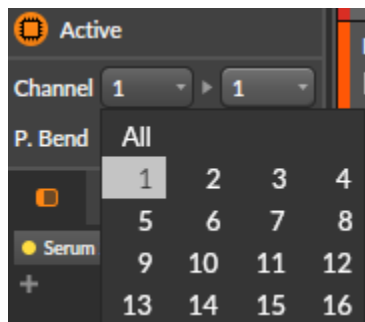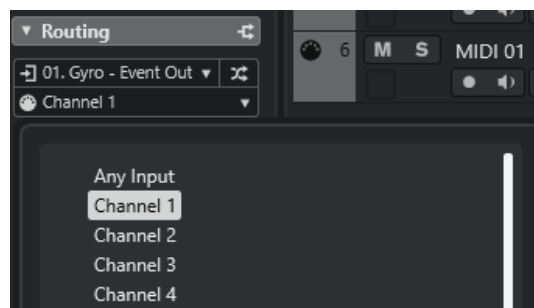## Route Gyro to Plugins and External MIDI Instruments

1. Create some new instruments, either Virtual Instruments, or MIDI tracks routed to your MIDI output device.

2. Enable the Monitor for each instrument you want to control. Optionally, go to Settings > Recording and uncheck Auto Arm Instrument Tracks to have more control of when tracks are armed / unarmed.

3. Select the track to be controlled, and in the Inspector Panel, select Gyro instead of 'All ins'. Repeat this process for each instrument you want to control.

4. In the Inspector Panel, choose MIDI Channels 1 through 4 to connect your instrument to one of the four channels from Gyro.

Cubase

Route Gyro to Plugins and External MIDI Instruments

1. Create some new instruments, either Virtual Instruments, or MIDI tracks routed to your MIDI output device.

2. Enable the Monitor for each instrument you want to control. Optionally, go to Edit > Preferences > Editing > Project & MixConsole and uncheck Enable Record on Selected Audio Track to have more control of when tracks are armed / unarmed.

3. Select the track to be controlled, and in the Inspector Panel, select Gyro instead of 'All ins'. Repeat this process for each instrument you want to control.

4. In the Inspector Panel, choose MIDI Channels 1 through 4 to connect yoxur instrument to one of the four channels from Gyro.
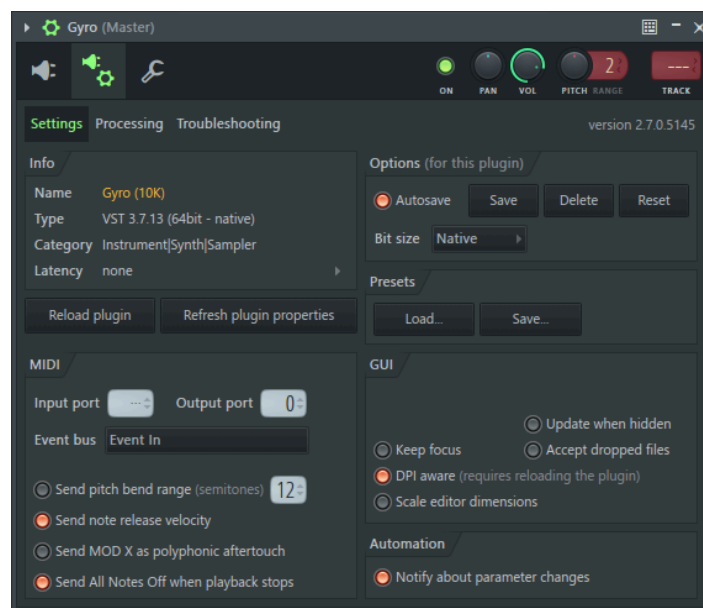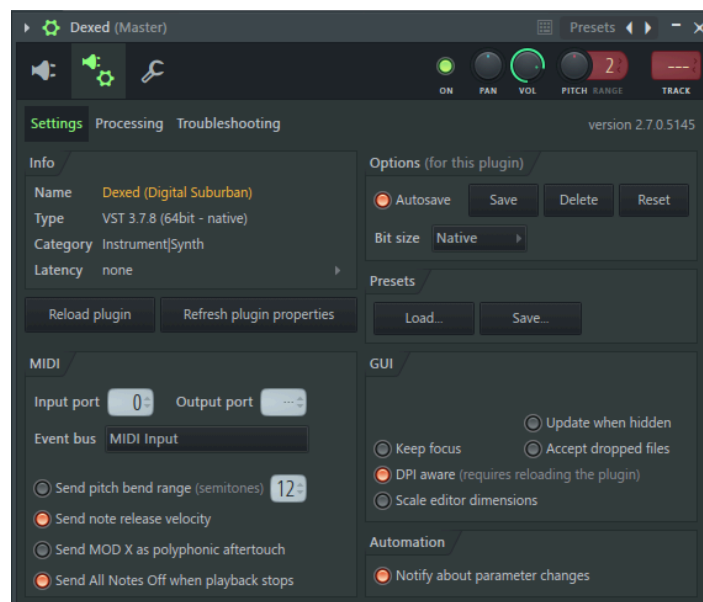
FL Studio

Route Gyro to Plugins and External MIDI Instruments

Although FL Studio does allow Virtual instruments to be routed to each other, it does not have the ability to filter MIDI Channels. Because of this, when routing Gyro to another instrument, the controlled instrument will play all four MIDI channels at the same time. For controlling external hardware, you may be able to set the receive channel on your device.

1. Create an instance of Gyro, click the gear on the plugin header, navigate to the plugin settings tab, and give Gyro an output port.

2. Create another VST and change its input port to match the output port from Gyro. Now when playing Gyro, the other instrument will play.

3. To control an external MIDI device, go into Options > MIDI Settings and set the port on your MIDI output device to match the output port from Gyro. If your MIDI device has the option to set the receive channel, set this from 1 to 4 to receive MIDI from one of the Gyro sequencer channels, or Omni, to receive from all channels.
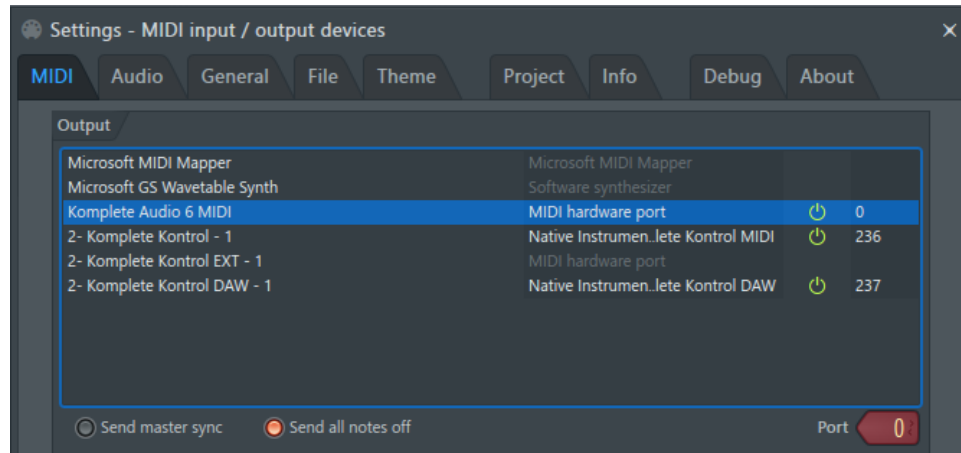
Ableton Live

Route Gyro to Plugins and External MIDI Instruments (Method 1)

Although Live does allow Virtual instruments to be routed to each other, it combines all of the MIDI down to a single channel. Because of this, when routing Gyro to another instrument, the controlled instrument will play all four MIDI channels at the same time. This also applies to MIDI routed to external hardware as well.
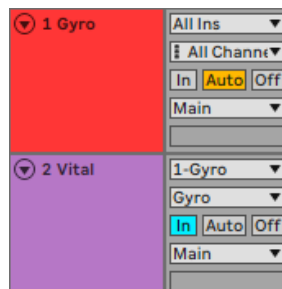
1. Create an instance of Gyro, and another instrument to be controlled, either a Virtual Instrument, or a MIDI track outputting to your external hardware.

2. On the second instrument, choose Gyro in the 'Input Type' menu.
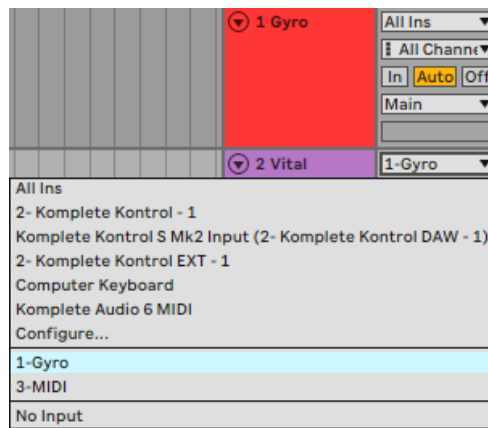
3. In the 'Input Channel' menu, choose Gyro
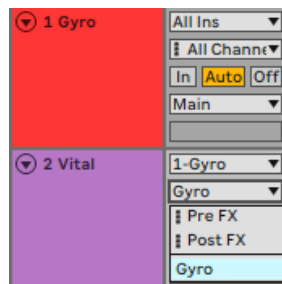
4. Switch the Monitoring to 'In' on the second instrument.

Route Gyro to Plugins and External MIDI Instruments (Method 2)

One workaround to connect Gyro to multiple instruments in Live is to use a 3rd Party Max Device called 'Multi-Midi Vst Wrapper' and its companion plugin, 'Multi-Midi Receiver'. Although this solution does partially work, it is sometimes unstable.

https://maxforlive.com/library/device/9448/multi-midi-vst-wrapper
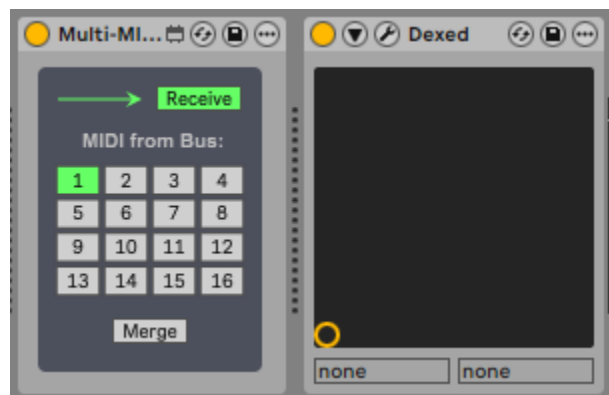https://maxforlive.com/library/device.php?id=9451

1. Download and open the Multi-Midi Vst Wrapper in a new track.

2. Open Gyro in the Wrapper.
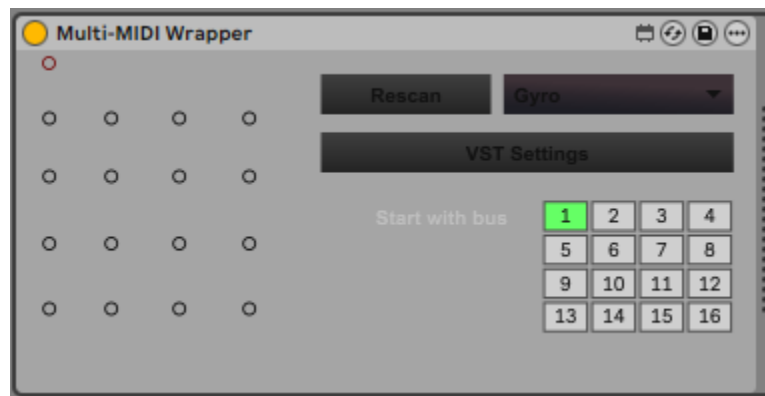
3. Open the Multi-Midi Receiver on a new track.

4. Either send the output of the new track to your external hardware, or place a Vst after the Multi-Midi Receiver.


5. The sequencer lane can be selected in the Multi-Midi Receiver by choosing Bus 1-4.
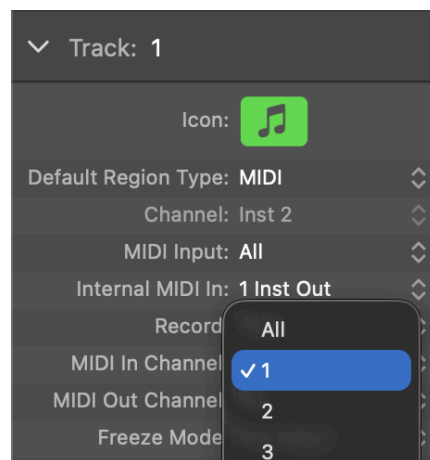
Logic Pro

Route Gyro to Plugins and External MIDI Instruments

1. Select the track which should listen to one of Gyro's MIDI outputs. This can be an internal plug-in or Logic's External Instrument.

2. Activate Input Monitoring

3. Open Track Inspector

4. Set Internal MIDI In: "Instrument Output - Gyro"
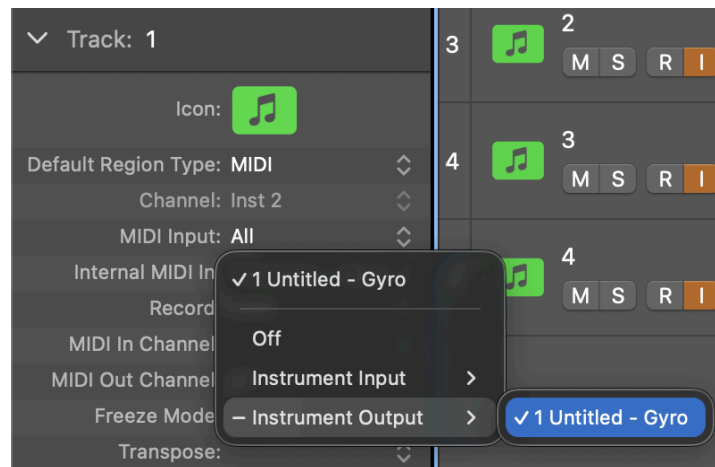
5. MIDI In Channel: 1 to 4, the channel corresponds to Gyro sounds 1 to 4

Reaper

## Route Gyro to Plugins and External MIDI Instruments

1. Create some new instruments, either Virtual Instruments, or MIDI tracks routed to your MIDI output device.

2. Open the routing panel on the mixer track of the instrument to be controlled.

3. In the Routing panel, open the 'Add new receive...' dropdown and select Gyro.

4. In the newly created routing, select the MIDI channel (1-4) that will control this instrument.
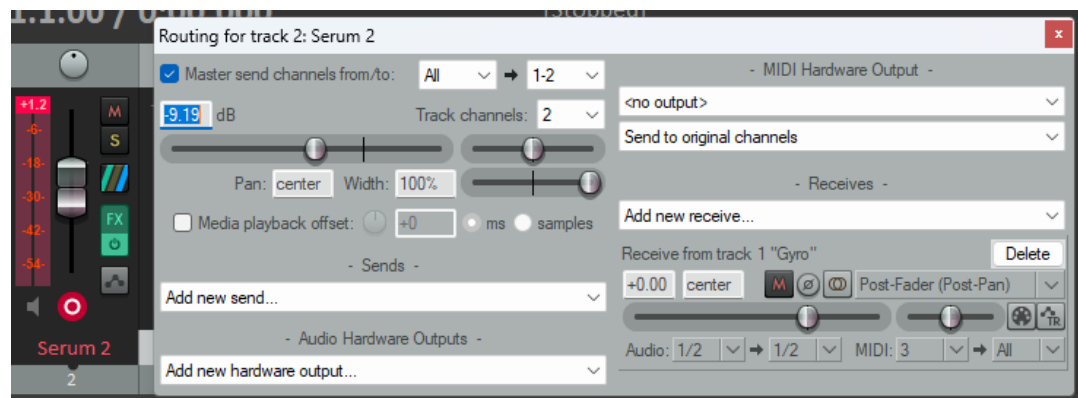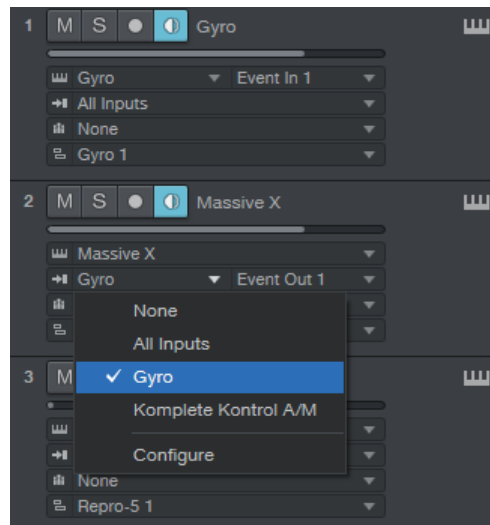
Studio One

Route Gyro to Plugins and External MIDI Instruments

5.   Create some new instruments, either Virtual Instruments, or MIDI tracks routed to your MIDI output device. Resize the track inspector so that all of the connection menus are visible.

6.   Enable the Monitor for each instrument you want to control.
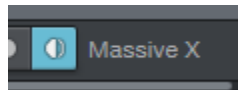
7.   On the instrument to be controlled, select Gyro instead of 'All Inputs'. Repeat this process for each instrument you want to control.

8.   In Studio One, MIDI channels are referred to as 'Event Outs'. Select between Event Out 1 through 4 to connect your instrument to one of the four channels from Gyro.