



joyMIDI

Protable MIDI Controller

User manual

(Please read the safety instructions and notice before use.)

V0.2

<https://www.sndlss.com/>

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1. Safety instructions



- This controller is a DIY device. If you have any safety concerns, please do not purchase.
- Children under 6 years of age do not use.
- Anyone who causes damage or safety problems due to modification activities, Soundless Studio will not be liable for damages

2. Notice



- The housing made by 3D printing (PLA material), do not use in environments above 65°C.
- There may be special textures and small flaws in the housing of 3D printing.
- Not waterproof.
- Do not fall, bend, burn, or soak.
- We will continually improve our products and retain or modify certain features, specifications and the rights of this manual without prior notice.

3. Features

- Portable.
- Support for smartphone, tablet and PC.
- Compatible with various MIDI software ◦
- OLED display.
- Build-in Accelerometer.
- Build-in one Pressure button.
- USB TYPE-C, USB bus power.
- MIDI-IN 2.5mm Audio TRS.
- Dedicated configure software.
- 4 operating modes :



- Keyboard : Piano key 、 Octave 、 Sustain 、 PitchBend 、 Modulation.
- Drum pad : 64 pads by 4 keys Bank switching.
- DJ controller : Support free DJ software – Mixxx.
- Game controller : USB HID Joystick for game.

4. Specification

- Silicone button : Button x20, Pressure x1, LED backlight x20
- Analog joystick (up/down/left/right/center)
- Analog fader
- Jog (Rotary encoder) x2
- Accelerometer
- OLED display
- Color LED light guide strip
- Ports : USB TYPE-C, MIDI-IN 2.5mm Audio TRS
- Power : USB bus power, Power consumption less than 100mA
- Dimensions : 160x78x36mm
- Support OS : Android, iOS, Mac, Windows
- Support MIDI : Note, CC (Absolute/Relative), PitchBend, MMC, ChannelPressure, ProgramChange, TimingClock, UserDefined
- Support USB HID Joystick : Buttons, X/Y, T/R, POV

5. Accessories

- USB TYPE-C cable – USB 2.0 compatible
- MIDI cable - dual 2.5mm Audio TRS
- Anti-slip pad

6. Plug In

6.1. Connect to Android

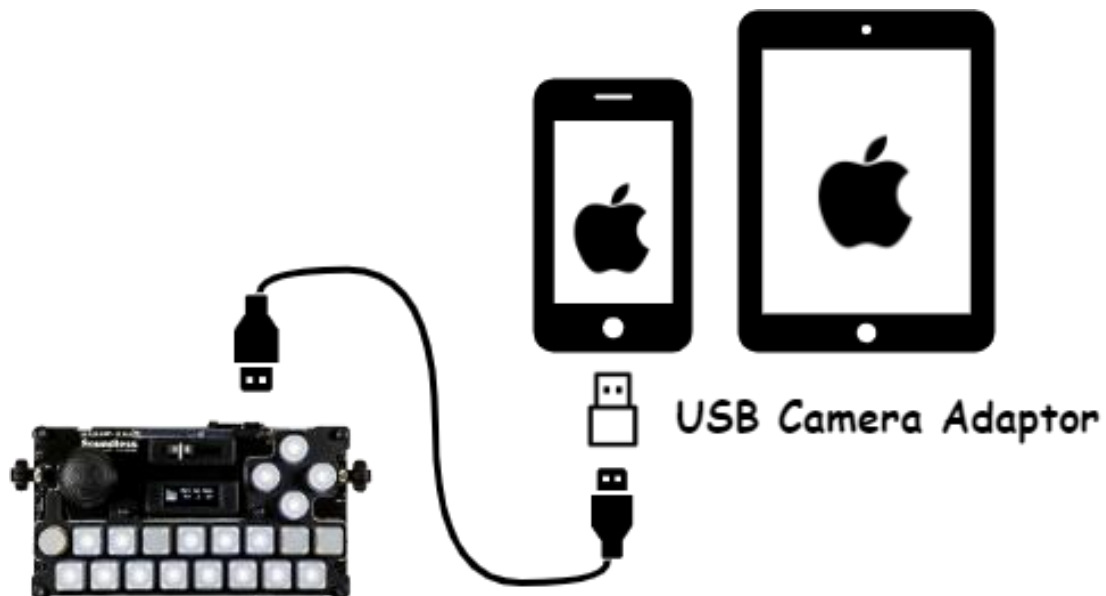
1. Plug in USB cable to Android phone by OTG adaptor (USB Type-A to Micro-B/Type-C).
2. The controller's LED light up and display startup screen, enter the operating mode menu.



(Trademark owned by Google)

6.2. Connect to iPhone/iPad

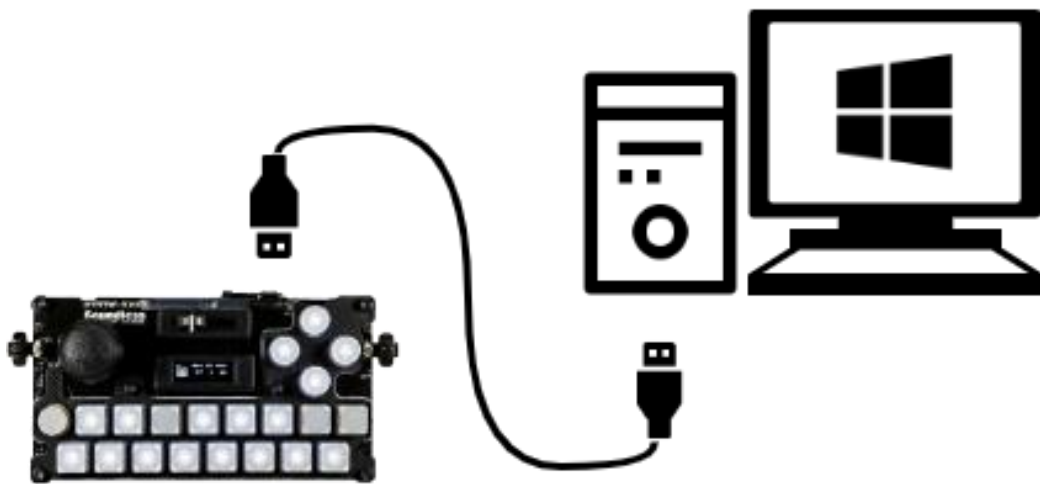
1. Plug in USB cable to iPhone/iPad by Apple camera adaptor (USB Type-A to Micro-B/Type-C)
2. The controller's LED light up and display startup screen, enter the operating mode menu



(Trademark owned by Apple)

6.3. Connect to Windows

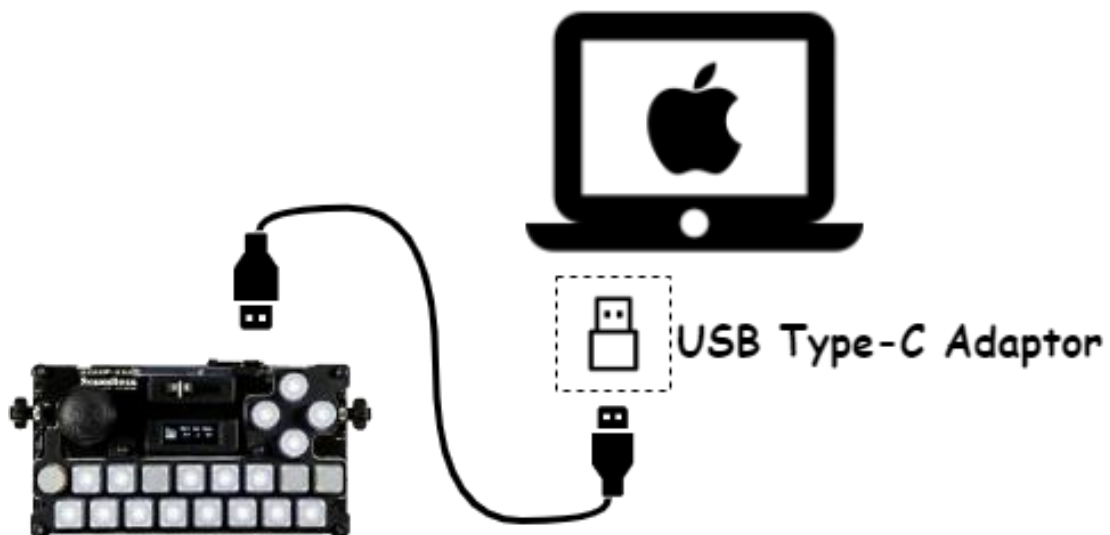
1. Plug in USB cable to Windows PC.
2. The controller's LED light up and display startup screen, enter the operating mode menu



(Trademark owned by Microsoft)

6.4. Connect to Macbook

1. Plug in USB cable to Macbook. Depends on model, a USB Type-C adaptor may be required.
2. The controller's LED light up and display startup screen, enter the operating mode menu

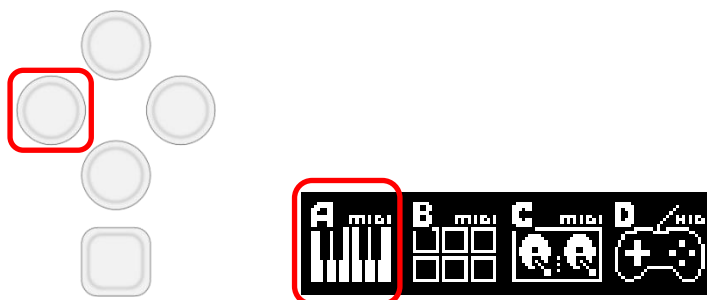


(Trademark owned by Apple)

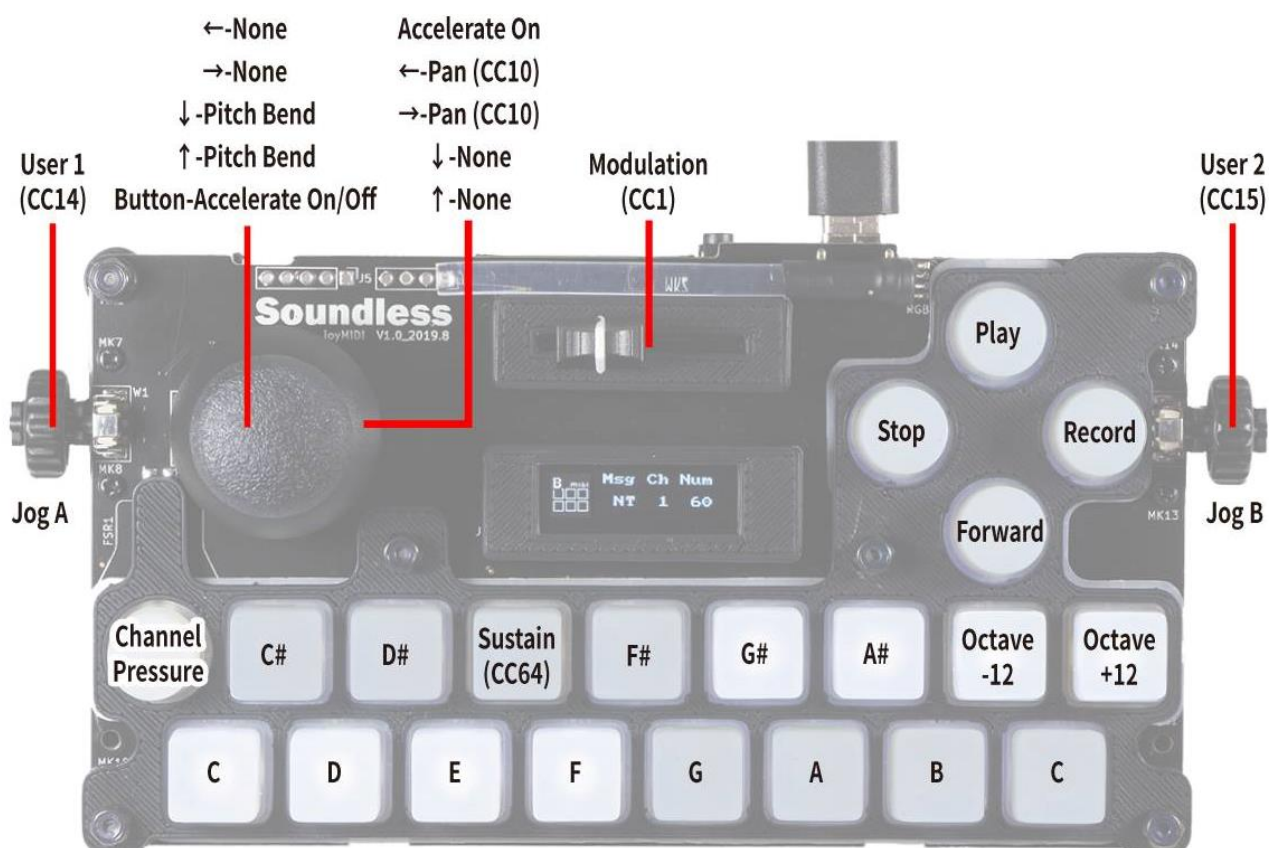
7. Operating mode

7.1. Keyboard mode

- Press button to enter the keyboard mode

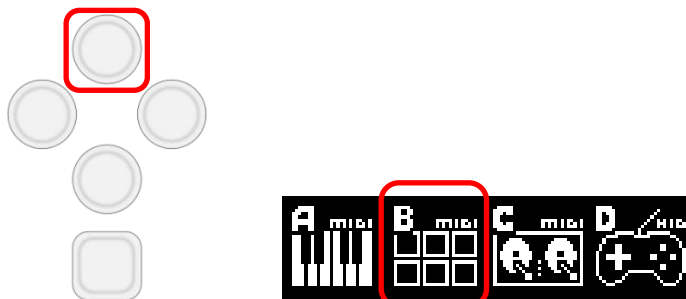


- Function

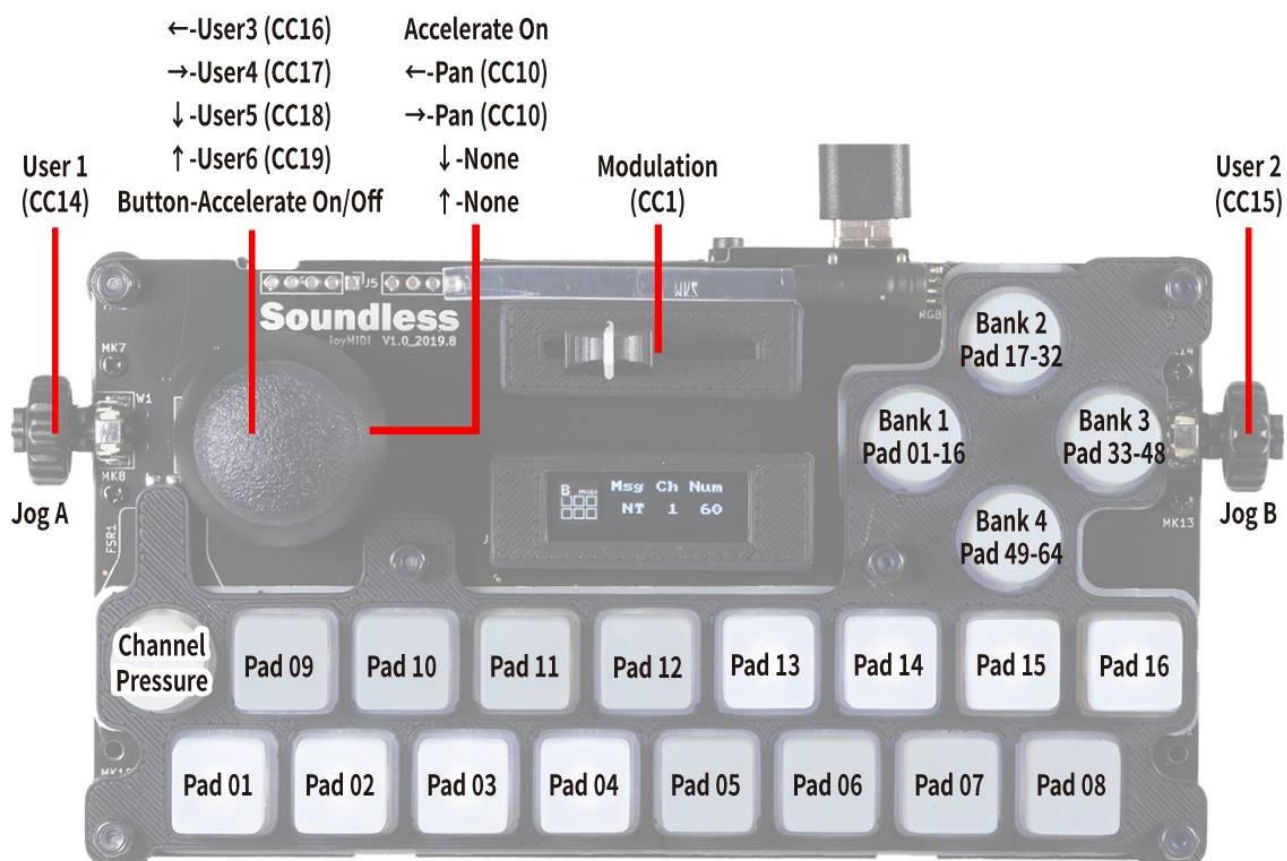


7.2. Drum pad mode

- Press button to enter the drum pad mode



- Function

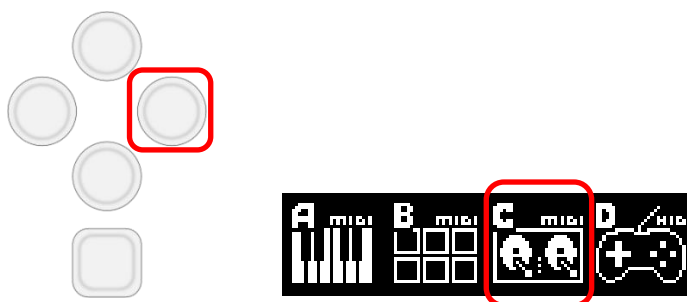


7.3. DJ controller mode

Native support for Mixxx DJ v2.2.4 (Need to copy mapping files manually before this version)

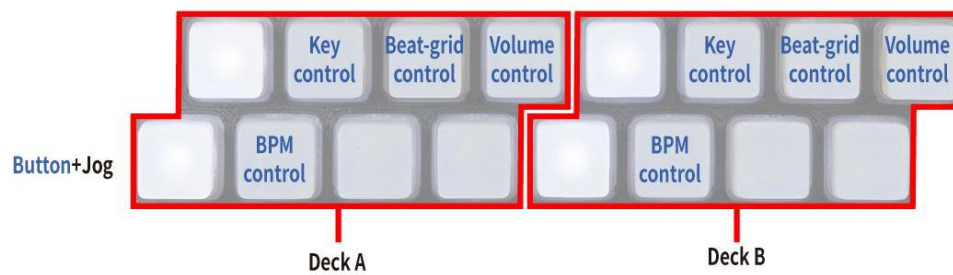
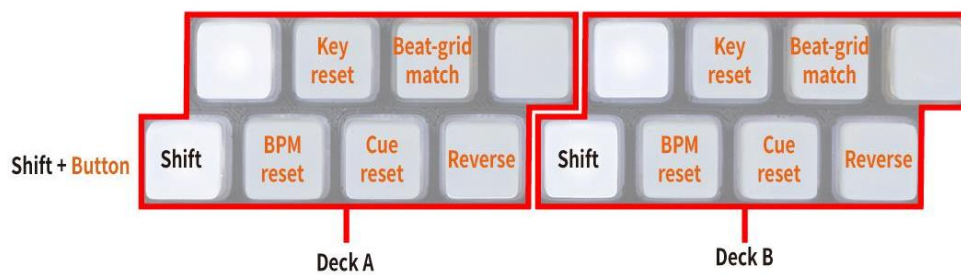
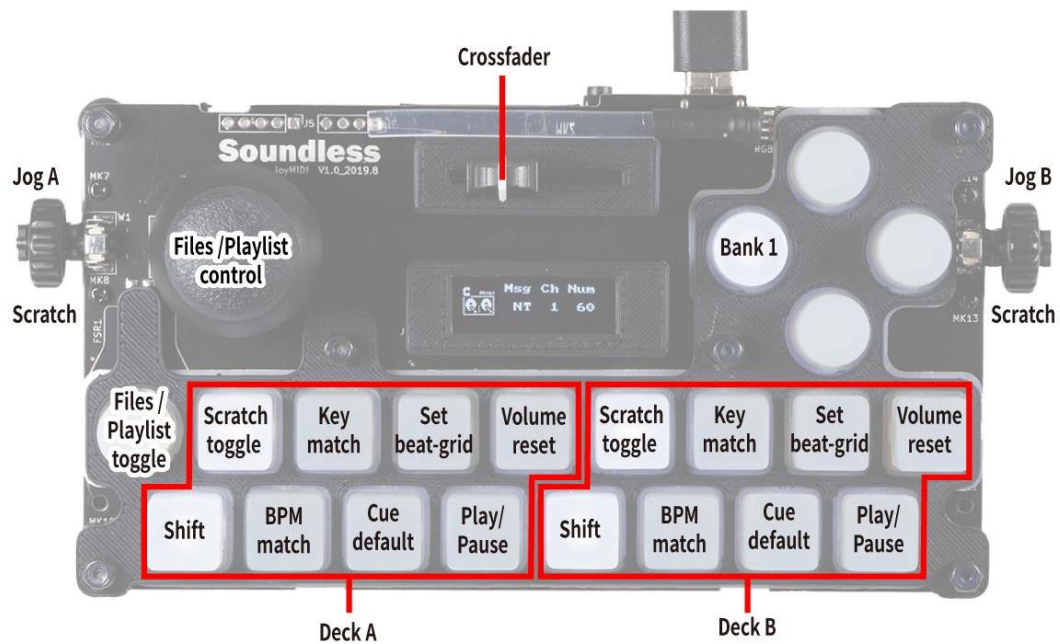
Mixxx Wiki - joyMIDI https://www.mixxx.org/wiki/doku.php/soundless_studio_joymidi

- Press button to enter the DJ controller mode

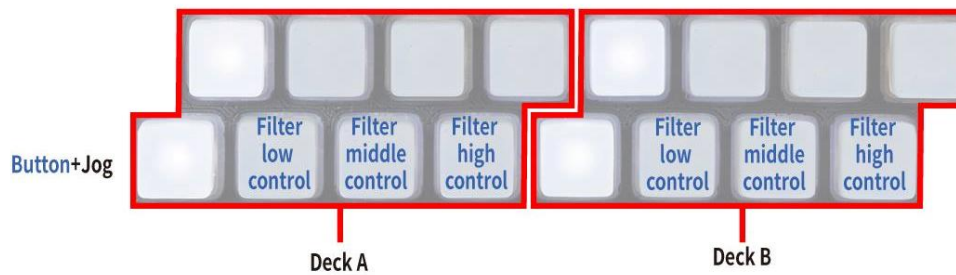
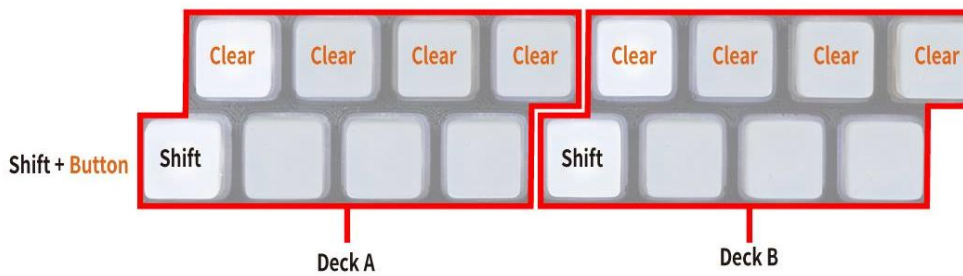
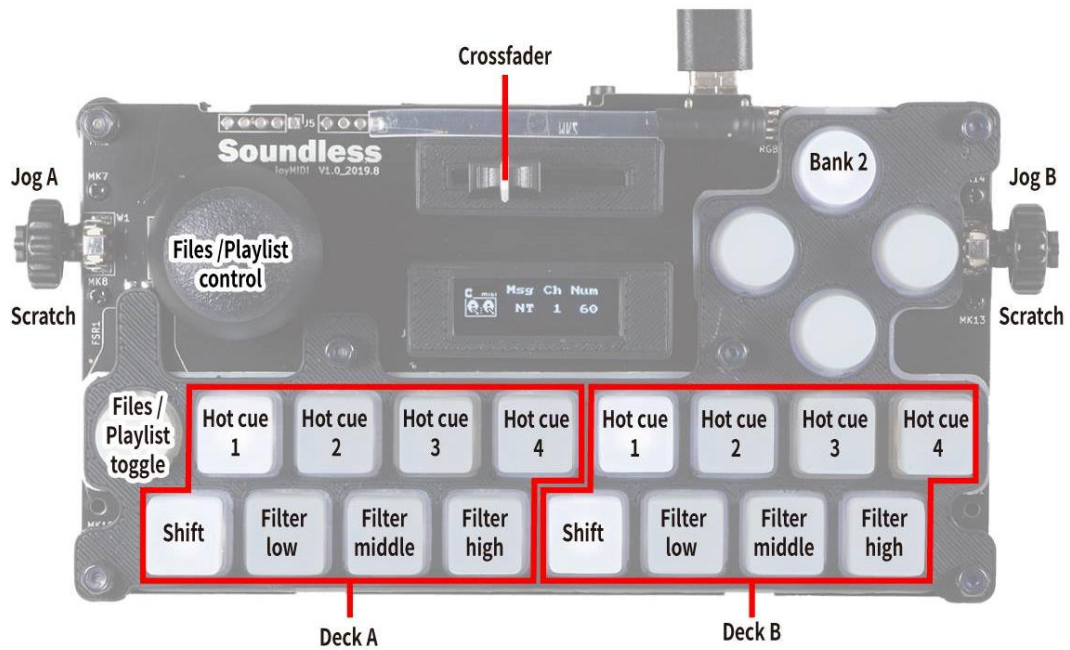


- Function : (Next page)

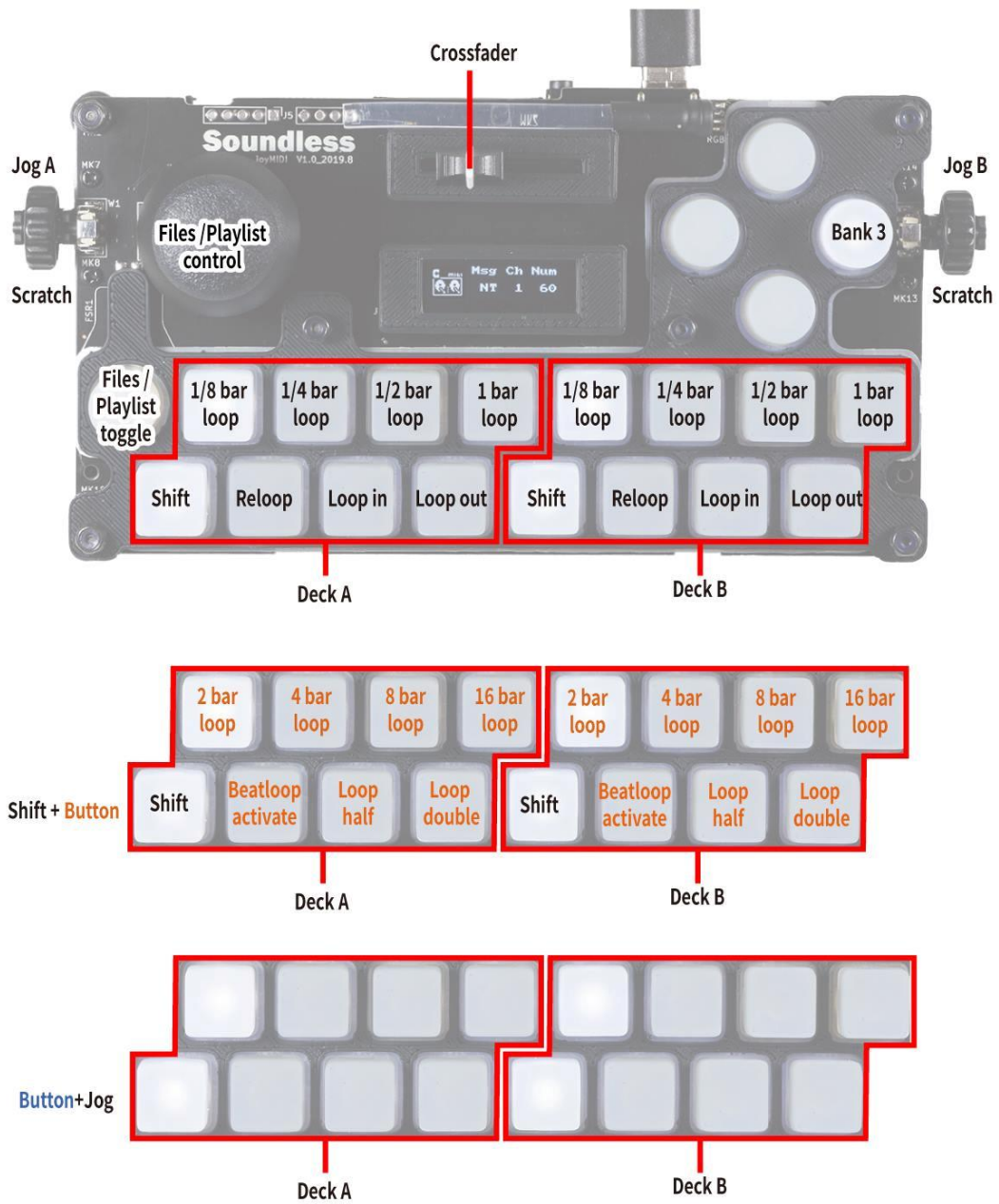
■ Bank1 :



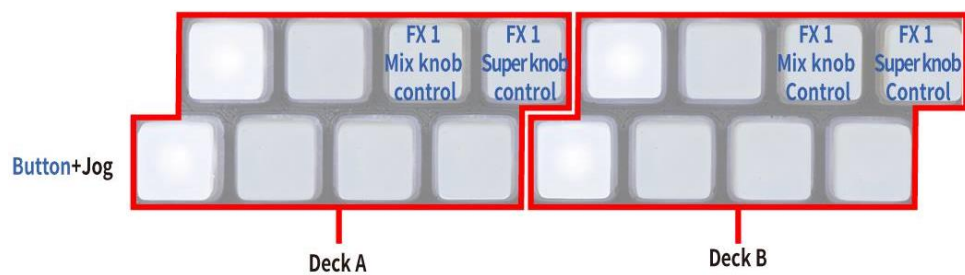
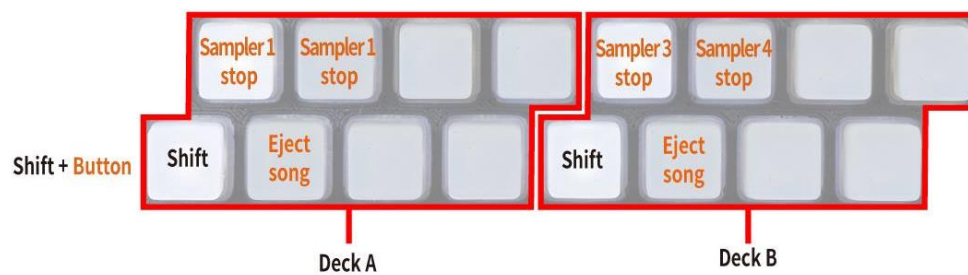
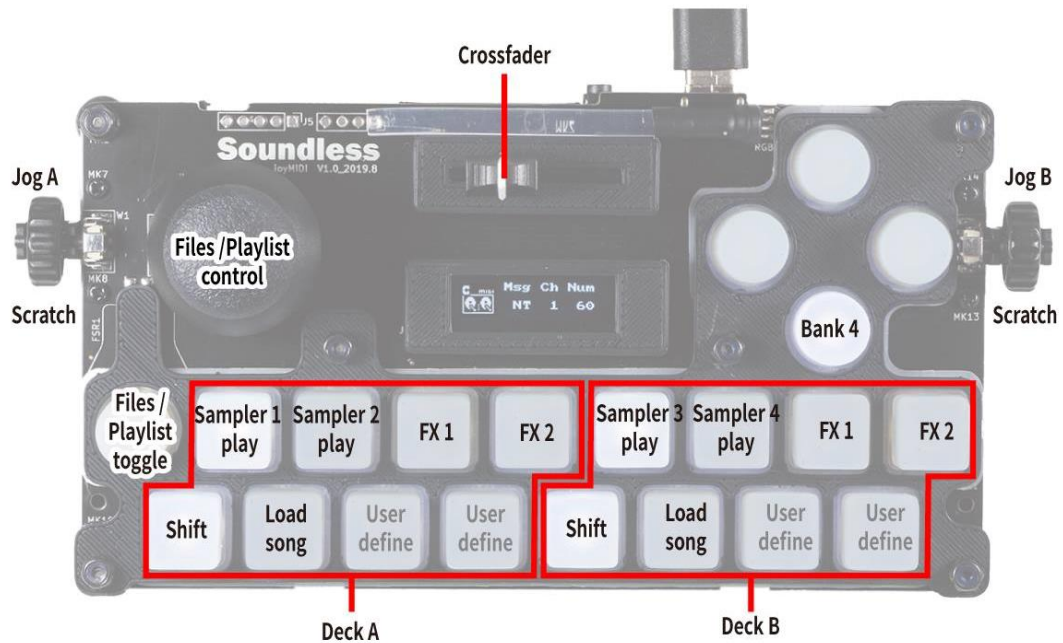
■ Bank2 :



■ Bank3 :



■ Bank4 :

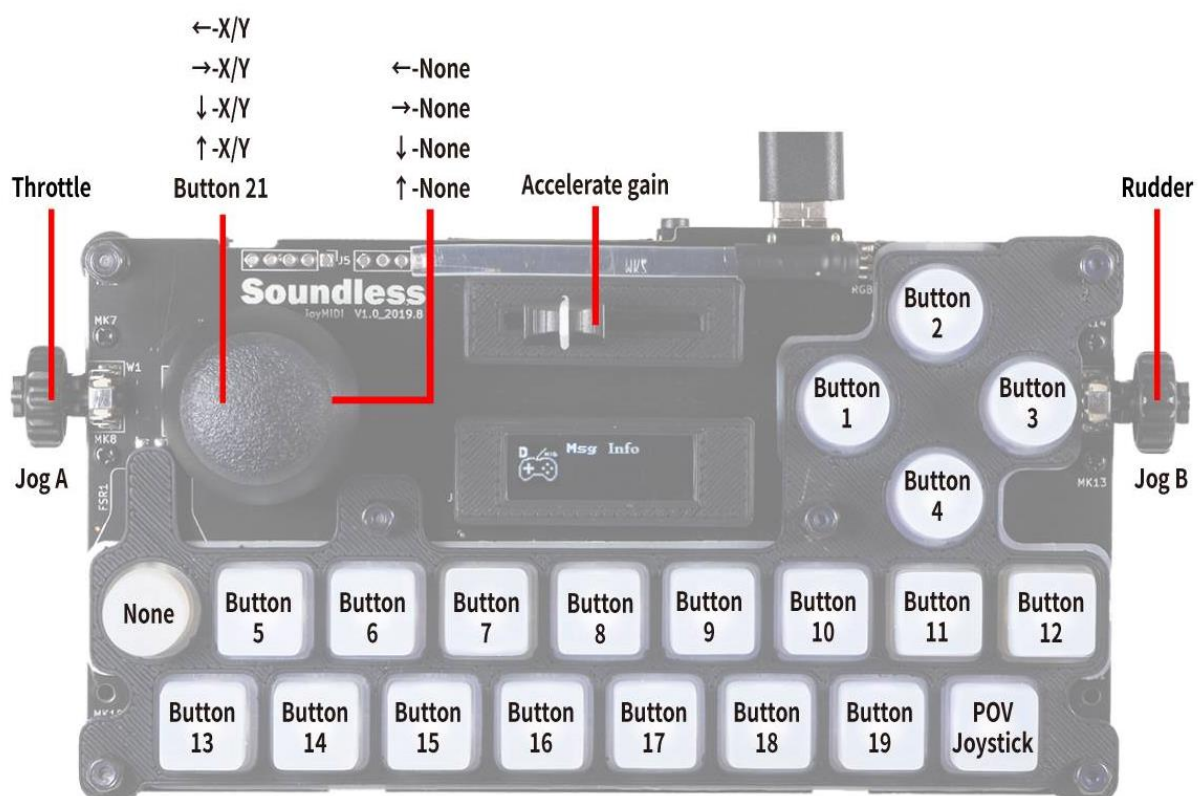


7.4. Game controller mode

- Press button to enter the game controller mode

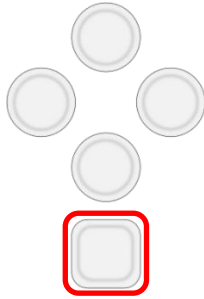


- Function



7.5. Configure software mode

- Press button into the configure software mode



- Display the link status

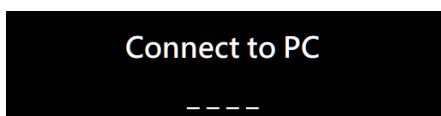
Connect to PC ----	disconnect
Connect to PC OK	connected

8. Configure software

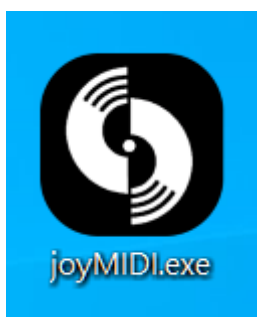
Software download : www.sndlss.com/download

8.1. Connect

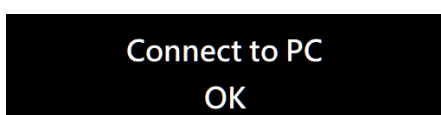
1. Following the 7.5 Configure software mode and the display will show not connect yet :



2. Launch the software :

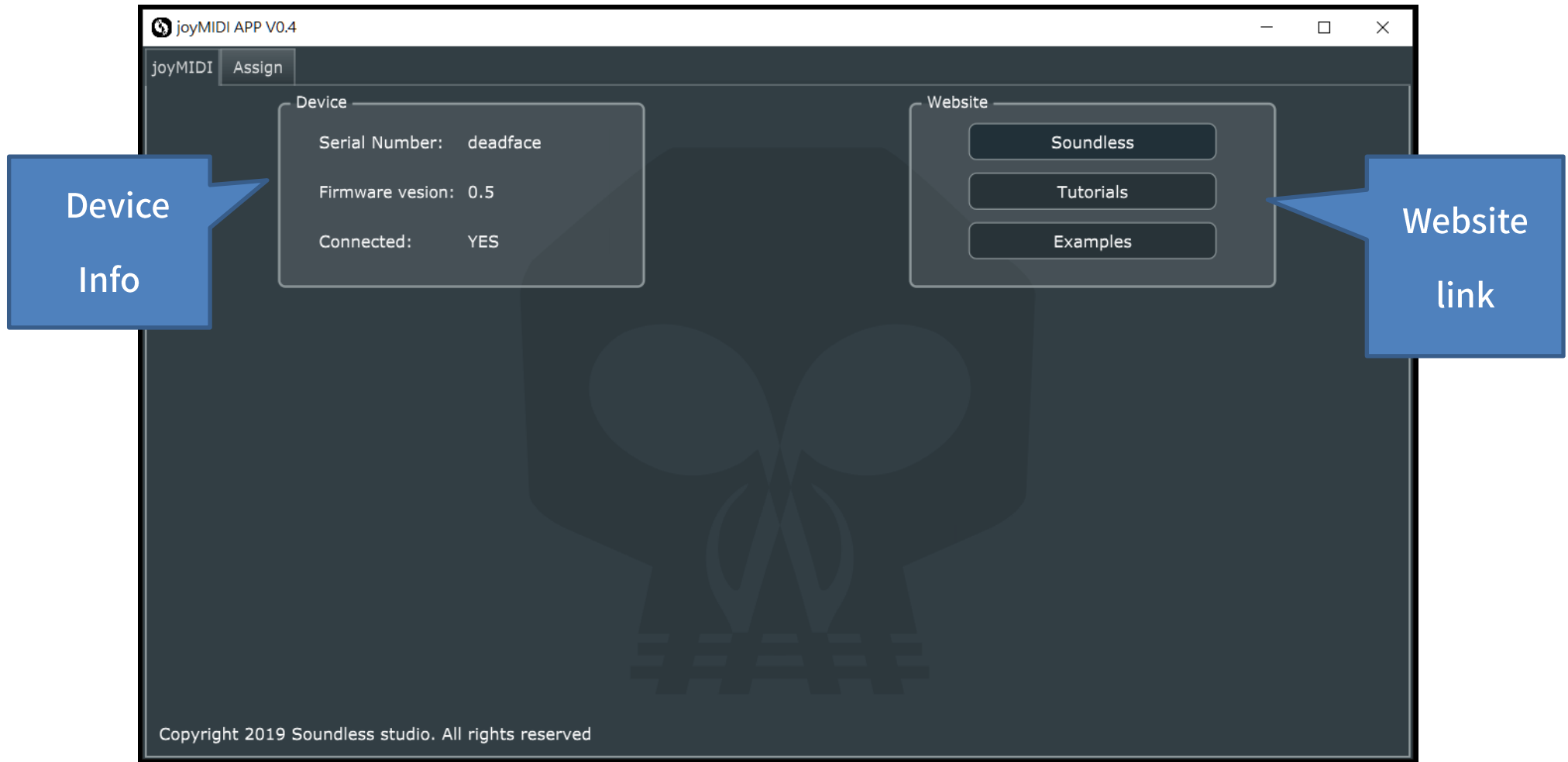


3. Display show connected :



(Please reconnect the controller or reopen the software if it is still not connected)

8.2. Device page



8.3. Assign page (Configure page)

The screenshot shows the 'joyMIDI APP V0.4' interface. At the top, there's a title bar and a tab labeled 'Assign'. Below the tab are four sub-tabs: 'MIDI Keyboard', 'MIDI Pad', 'MIDI DJ', and 'HID Joystick'. The main area displays a virtual MIDI keyboard with various controls like a volume knob, a slider, and several buttons. On the right side, there's a 'Display' section with checkboxes for 'Device', 'Name', 'Element', 'Message', and 'LEDs'. Below this is an 'Assign Message' section for 'Key 12', with dropdown menus for 'Message' (Note_On/Off), 'Channel' (Channel_1), 'Number' (D#2(51)), 'Mode' (Single), and 'Value' (L->H). There's also a 'User Defined Message' checkbox. At the bottom, there are buttons for 'Load from file', 'Load from device', 'Save to file', and 'Save to device', along with status indicators 'Loaded', 'Modified', and 'Saved'. Six blue callout boxes with white text are overlaid on the image, numbered 1 through 6, pointing to specific UI elements.

1. Load param

2. Select the operating mode to be set

3. Check the UI display

4. Select the modifier

5. Setup param

6. Save param

8.4. Replace the Intro (startup screen) and ICONs



8.5. Setup the messages for MIDI

Buttons 、 Pressure button 、 Jog(Rotary Encoder) 、 Joystick 、 Fader 、 Accelerometer

The screenshot displays the joyMIDI APP V0.4 interface. The main area shows a MIDI controller layout with various controls and their assigned MIDI messages. The controls include:

- Color LED**
- Fader**: CC1 ch1 LH
- Joystick**: L None, R None, D PB ch1 ML, U PB ch1 MH, B Accel On/Off
- Accel**: L CC10 ch1 ML, R CC10 ch1 MH, D None, U None
- OLED**
- LEDs**: 1. NT35. ch10 B0 LH, 2. NT38. ch10 D1 LH, 3. NT42. ch10 F#1 LH, 4. NT56. ch10 G#2 LH
- JOG A**: CC7a ch1 x2 32
- JOG B**: CC65r ch1 x1
- Pressure**: CP ch1 LH
- Buttons**: 5. NT61 ch1 C#3 LH, 6. NT63 ch1 D#3 LH, 7. CC64 ch1 LH, 8. NT66 ch1 F#3 LH, 9. NT68 ch1 G#3 LH, 10. PS +12, 11. NT60 ch1 C3 LH, 12. NT62 ch1 D3 LH, 13. NT64 ch1 E3 LH, 14. NT65 ch1 F3 LH, 15. NT67 ch1 G3 LH, 16. NT69 ch1 A3 LH, 17. NT71 ch1 B3 LH, 18. NT72 ch1 C4 LH (highlighted in blue), 19. NT73 ch1 D4 LH, 20. NT74 ch1 E4 LH

The right panel shows the **Assign Message** settings:

- Display**: ☐ Device, ☒ Name, ☒ Element, ☒ Message, ☐ LEDs
- Key 20**: Message (Note_On/Off), Channel (Channel_1), Number (C4 (72)), Mode (Single), Value (L->H), ☐ User Defined Message

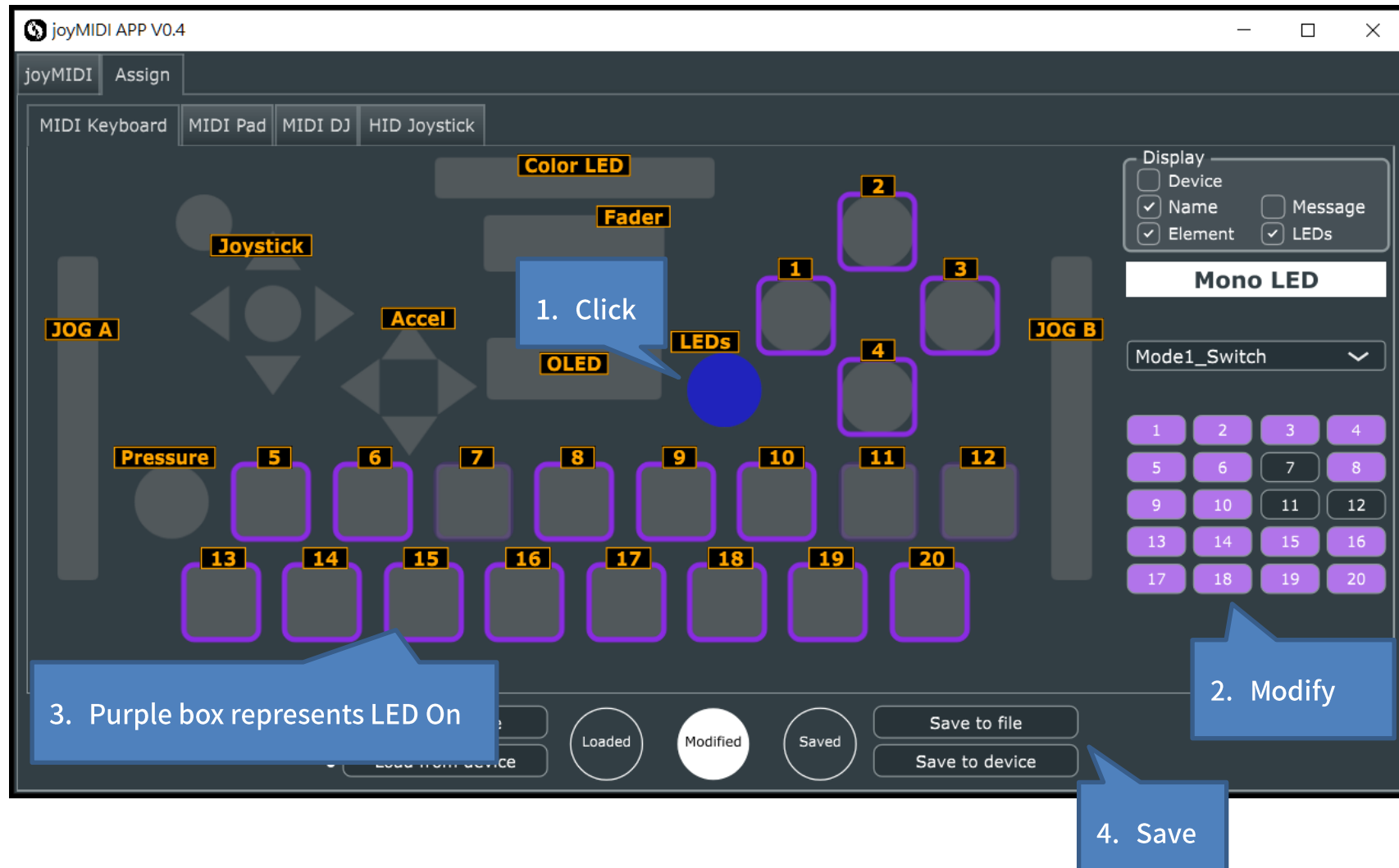
The bottom panel shows the **Load** and **Save** buttons:

- Load**: Load from file, Load from device
- Save**: Save to file, Save to device

Three blue callout boxes indicate the steps:

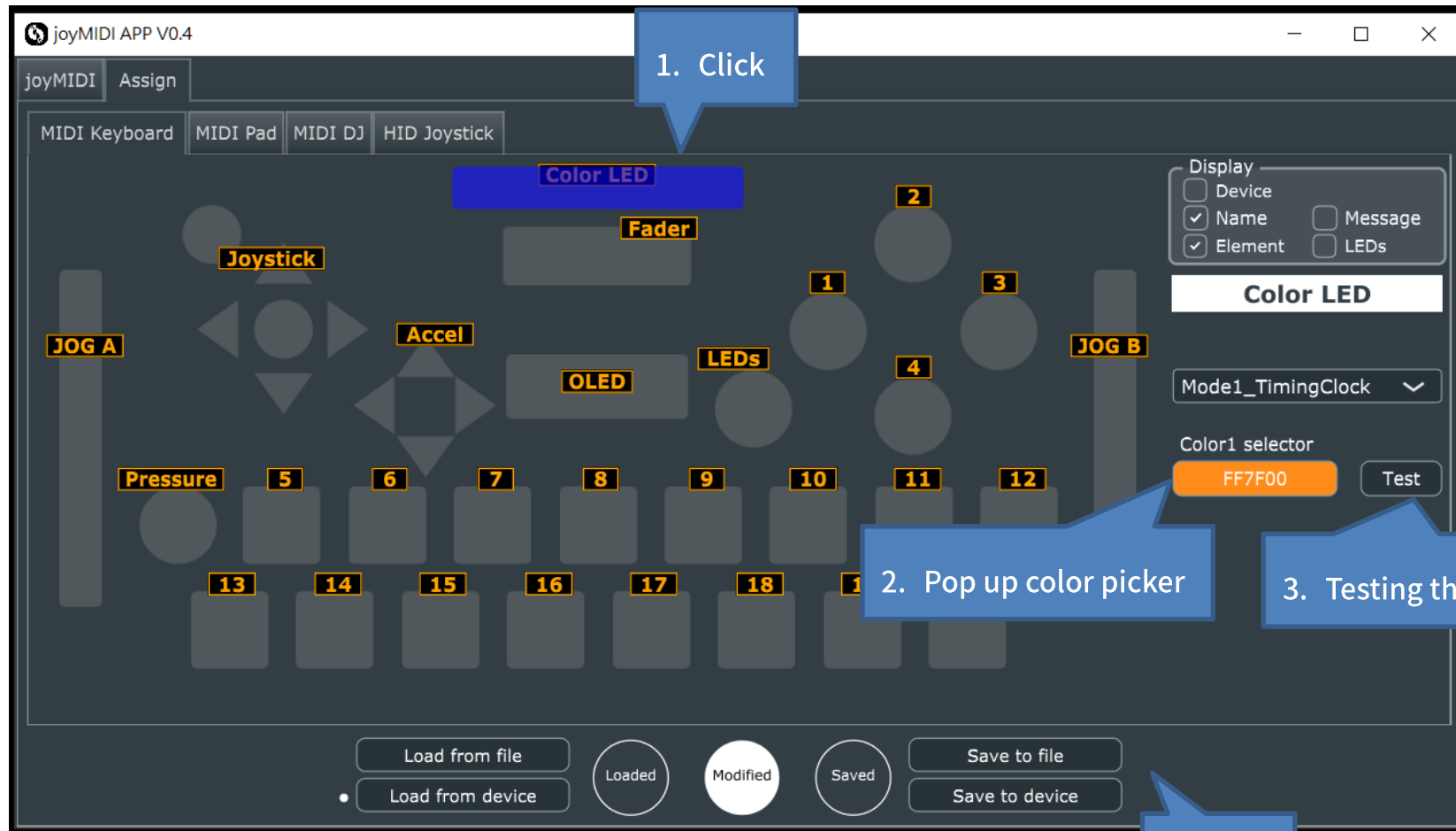
1. Click
2. Modify
3. Save

8.6. Setup the LEDs for MIDI



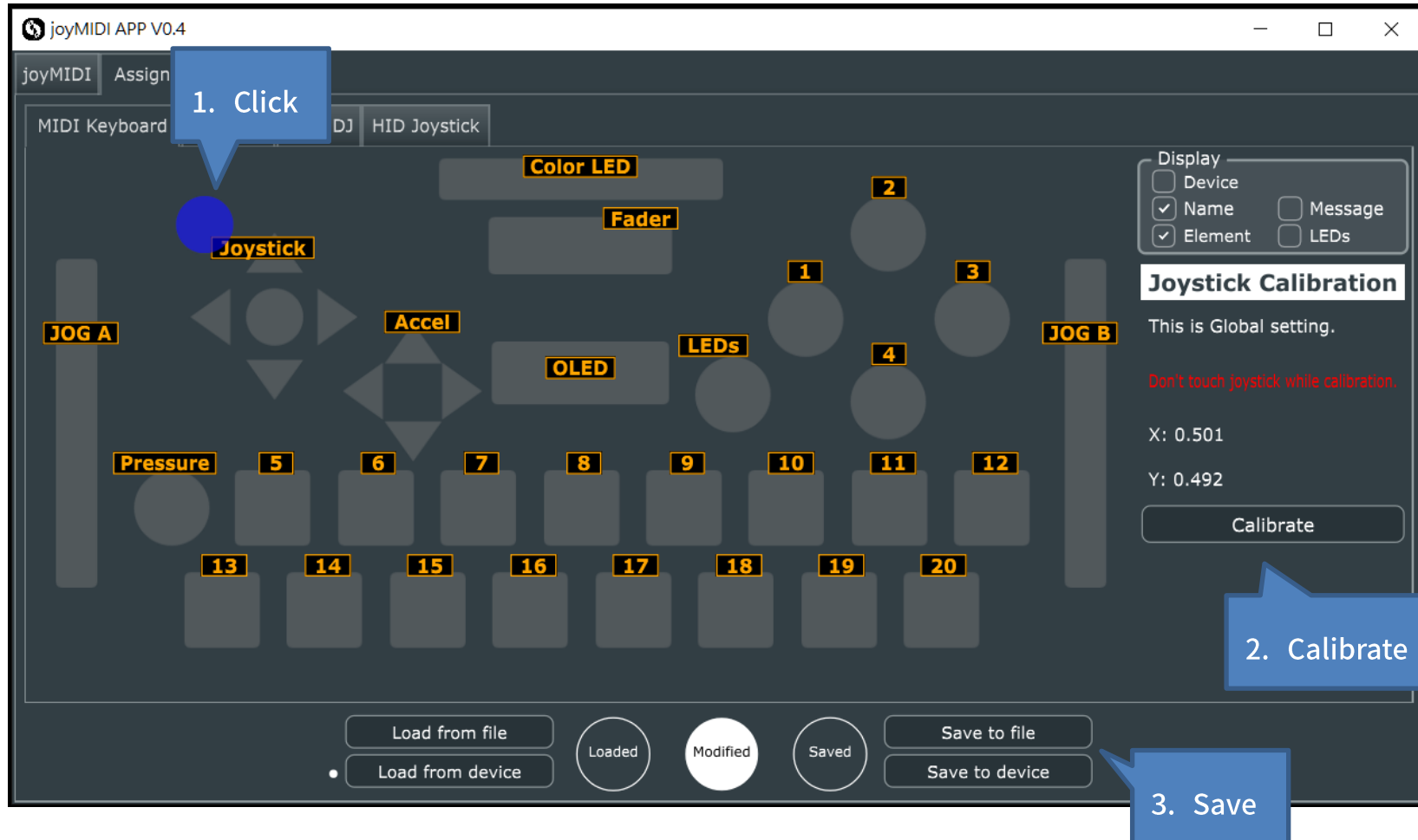
8.7. Setup the color LED light-guide-strip for MIDI

Color LED light-guide-strip will twinkling follow the MIDI Timing Clock

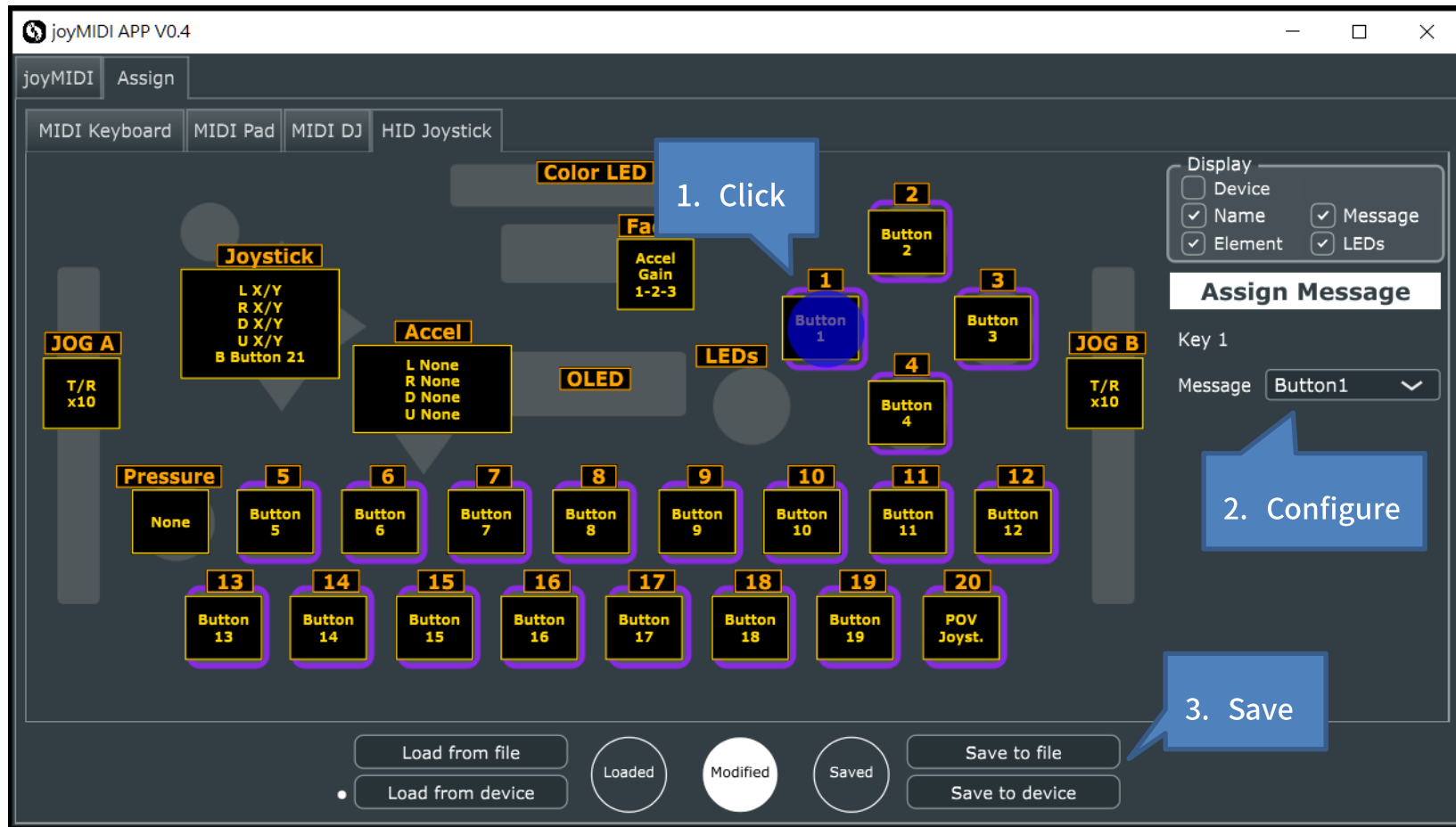


8.8. Joystick calibration for MIDI

Do not touch joystick while calibration



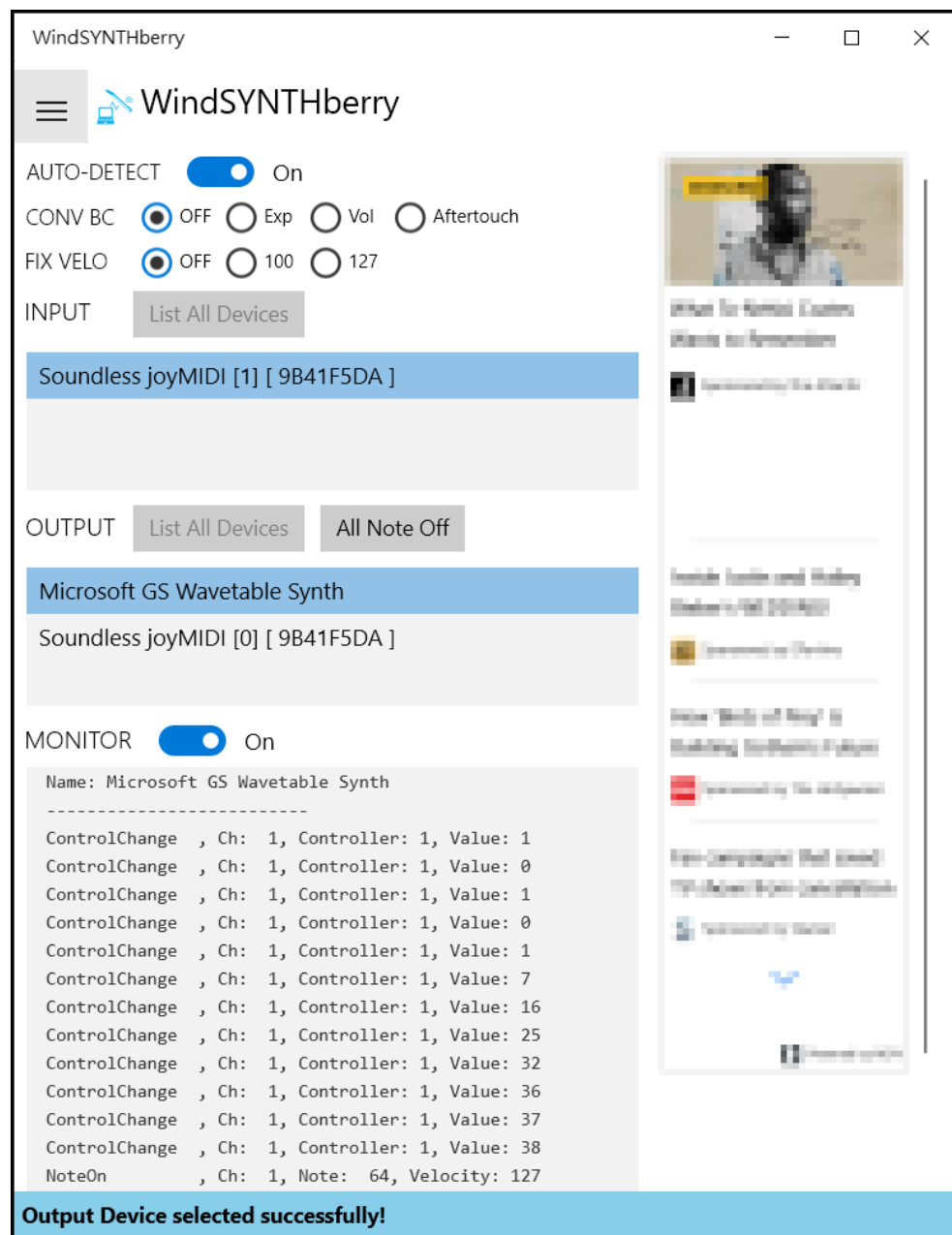
8.9. Setup the message for HID-Joystick



9. Testing

9.1. MIDI testing

- Download the freeware WindSYNTHberry from Microsoft store

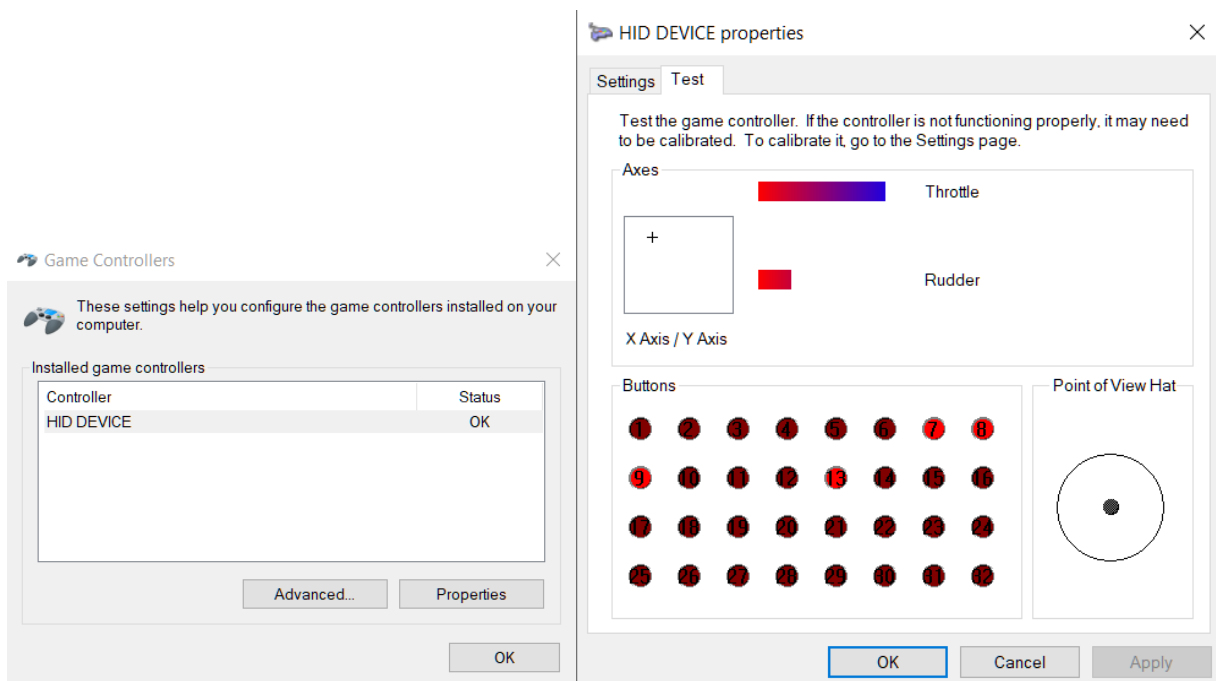


9.2. HID-Joystick testing

- Windows10 :

All settings > Devices > Devices and printers > HID DEVICE > (Right click menu) >

Game controller settings > Properties



10. Troubleshoot

11. Revision

Date	Rev.	Descript
2019.11.06	0.1	Initial
2020.02.06	0.2	Mixxx DJ support