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Connect Optron Mini to FL Studio (DAW)

**Category:** Technology, arts

**Overview:** Students will get introduced to the Optron Mini, as well as go through step-by-step instructions on how to connect the Optron mini to FL Studio as a midi instrument. Students will get experience hands on with using multiple programs in conjunction in order to achieve a specific goal.

**Suggested time:** 30-50 minutes

**Materials Needed:**

* Computer
* Optron Mini
* FL Studio trial software
* Max 8 software
* Optron software
* LoopMIDI software

**Activity:** play some simple music with synthesizers in FL Studio on the Optron Mini

* Watch introduction video on the Optron Mini
  + <https://media.oregonstate.edu/media/t/1_h569c7y2>
* Download FL Studio trial
  + <https://www.image-line.com/fl-studio-download/>
* Download Max 8
  + <https://cycling74.com/downloads>
* Download Optron software
  + <https://github.com/udellc/OptronMax>
    - Click green “code” box
    - Click download zip
    - Navigate file explorer to: This PC > Documents > Max 8 > Packages
    - Open downloaded zip folder
    - Open “OptronMax-main” folder
    - Move folder named “Optron” from zip folder to packages folder from previous step
* Download LoopMIDI software
  + <https://www.tobias-erichsen.de/software/loopmidi.html>
* Watch tutorial on how to connect everything together
  + <https://media.oregonstate.edu/media/t/1_l7ngsh1q>
* Now return to Max 8 and open the Optron Mini tab. Set number of frets to 3 (This will give you 2 frets and an open string for 3 notes total)

Graphical user interface, application

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* Next, go to FL Studio
* Click on channel rack

Graphical user interface, application

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* Add a channel

A screenshot of a computer

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* Choose plugin called “Sakura”. (Try other plugins if you would like. Sakura is just an easy one for this activity).

A picture containing text, indoor

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* Now try playing “Mary Had a Little Lamb” by using the colors from the Optron as reference to the following color-coded sheet music. Read left to right, one table at a time.

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* Good Job!
* Here is a video of me playing this song:
  + <https://media.oregonstate.edu/media/t/1_43soifof>
* Once you get the hang of it, try this next one.
* For the next song, go back to the Optron Mini window and change the number of frets to 6.

Graphical user interface, application

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* Try and see if you can tell what song this is

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* Here is a video of me playing the song:
  + <https://media.oregonstate.edu/media/t/1_vn4njcax>
* **Question: what happens when you change the number of frets? Try setting it to 20. Try 50. What are your findings?**
* Next, we are going to turn up the difficulty.
* Change the number of frets to 9
* Open the “External DAW MIDI Instrument Tutorial” window
* By clicking and dragging your mouse down, change where it says “A4” to “C4”. This will change what the note is when you have no fingers on the fret board.

Graphical user interface

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* Click on the dropdown menu on Scale Degree where it says “Ionian (major)”, and select “Mixolydian”

Graphical user interface

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* Try to play “Las Mañanitas” with the color-coded sheet music provided. Take note that this song is in ¾ time instead of the usual 4/4 time, so each measure will have 6 eighth notes instead of 8.
* Here is the song:

Shape

Description automatically generated with medium confidence

* **Question: How does changing the type of key you are in affect the notes you can play?**

**Outcome goals:**

* **Basic programming**
* **Basic understanding of FL Studio**
* **General understanding of how to play Optron Mini**

Works Cited:

<http://www.tubescore.net/2012/04/las-mananitas-sheet-music-for-violin.html>