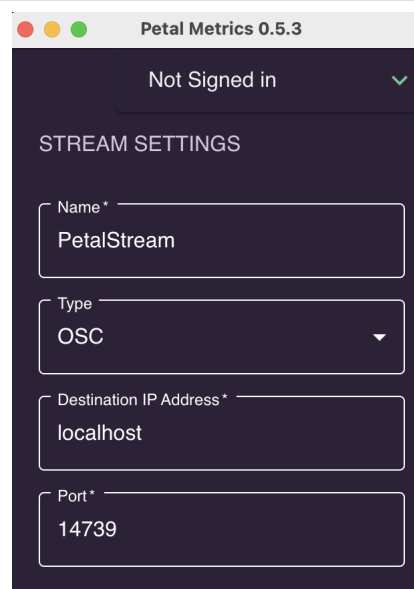


Muse 2 EEG headband

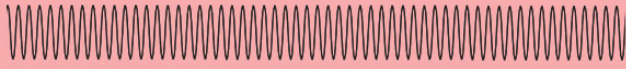




Muse is a smart headband that acts as your personal meditation coach. Using advanced EEG brain sensors, Muse can detect your brain activity and provide you with real-time feedback in the form of gentle audio sounds through your headphones (regular use in the Muse app). Primarily advertised as a neurofeedback tool, the headband tracks heart rate (**PPG + Pulse Oximetry**), angular velocity (**gyroscope**), proper acceleration (**accelerometer**), and electroencephalography (**dry electrodes**) to assist you in your meditation sessions.

The Muse can be connected to your computer using Petal Metrics: <https://petal.tech/downloads>
This tool allows you to send the EEG data to your computer through OSC.

Update 2024: this app is no longer free.



[Brain waves](#) are measured in hertz (Hz), which refers to cycles per second.

Gamma Waves 30 - 100 HZ		INSIGHT PEAK EXPERIENCES SYNCHRONIZATION
Beta Waves 12 - 30 HZ		ALERTNESS CONCENTRATION THINKING
Alpha Waves 8 - 12 HZ		MEDITATION CREATIVITY RELAXATION
Theta Waves 4 - 8 HZ		VISUALIZATION TRANCE DREAMING
Delta Waves 0.5 - 4 HZ		DEEP SLEEP TRANSCENDENCE RESTORATION

Muse 2 in Touchdesigner:

<https://www.youtube.com/embed/Br0JXvuzWEI>

This video covers how to connect the Muse 2 device into TouchDesigner.

Using OSC ports (muse app, paid) to get the data, we will build a simple generative animation controlled with the mind.

The connected app is [Mind Monitor](#) (paid)

>> OSC specs for Mind Monitor : <https://mind-monitor.com/FAQ.php#oscspec>

This app is available in the Blackbox JK (ipad)

Download [muse_data.tox](#) for touchdesigner use with and OSC app connected to the headset & get named channels (check out de RAW oscIn operator inside the .tox to see the other possibly usefull data being streamed).

more TD examples using the Mind monitor app:

- [Mind-Monitor-TouchDesigner-MultiDisplay.toe](#)
- [Mind-Monitor-TouchDesigner-Audio.toe](#)
- [Mind-Monitor-TouchDesigner-Relative.toe](#)

- [Mind-Monitor-TouchDesigner-RAW.toe](#)

Do you have developer skills : https://choosemuse.my.site.com/s/article/Muse-Software-Development-Kit-SDK-FAQs?language=en_US >> to apply for the SDK

Working in Python: check out: <https://github.com/alexandrebarachant/muse-lsl>
if you create a workaround to convert this LSL data to OSC, [please let us know](#)

Also, a high end tool that will take some effort to use, but seems to be free:
<https://openvibe.inria.fr/discover/>

Extra reads:

[Interesting article on Medium](#) : Muse 101 — How to start Developing with the Muse 2 right now

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