

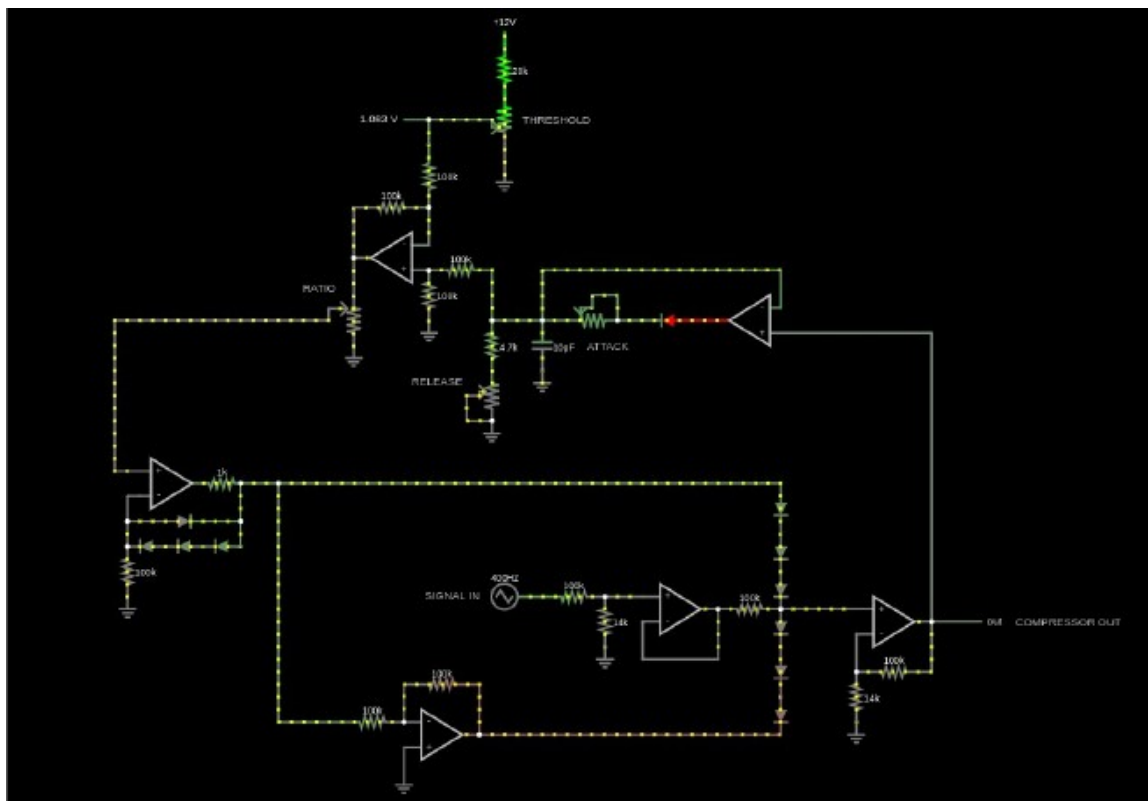
SUMMARY

We're done preparing the schematics (present in /compressor and /keyboard). The compressor has been tested out and seems to be flawless during our experimentation unless given considerably high voltage input. The keyboard has yet to undergo tests and we are currently unsure of the code's performance, arduino and C programs alike.

Compressor:

Ressources:

- 4 – potentiometers
- 11 – 1N4148 diodes
- 6 – op-amps
- 1 – 1k resistor
- 1 – 4.7k resistor
- 2 – 14k resistor
- 1 – 20k resistor
- 9 – 100k resistor
- 1 – 10 μ F capacitor



The circuit above, is totally capable of:

- filtering out noise
- clearing out distortion
- taking and processing audio input
- setting a threshold (works as an audio limiter)
- varying the output according to the set threshold
- customizing the attack (simply delays the compression)
- customizing the release (works similarly to the attack but in reverse)
- is also safe from shortcircuiting and accidentally reversing signals.

Note:

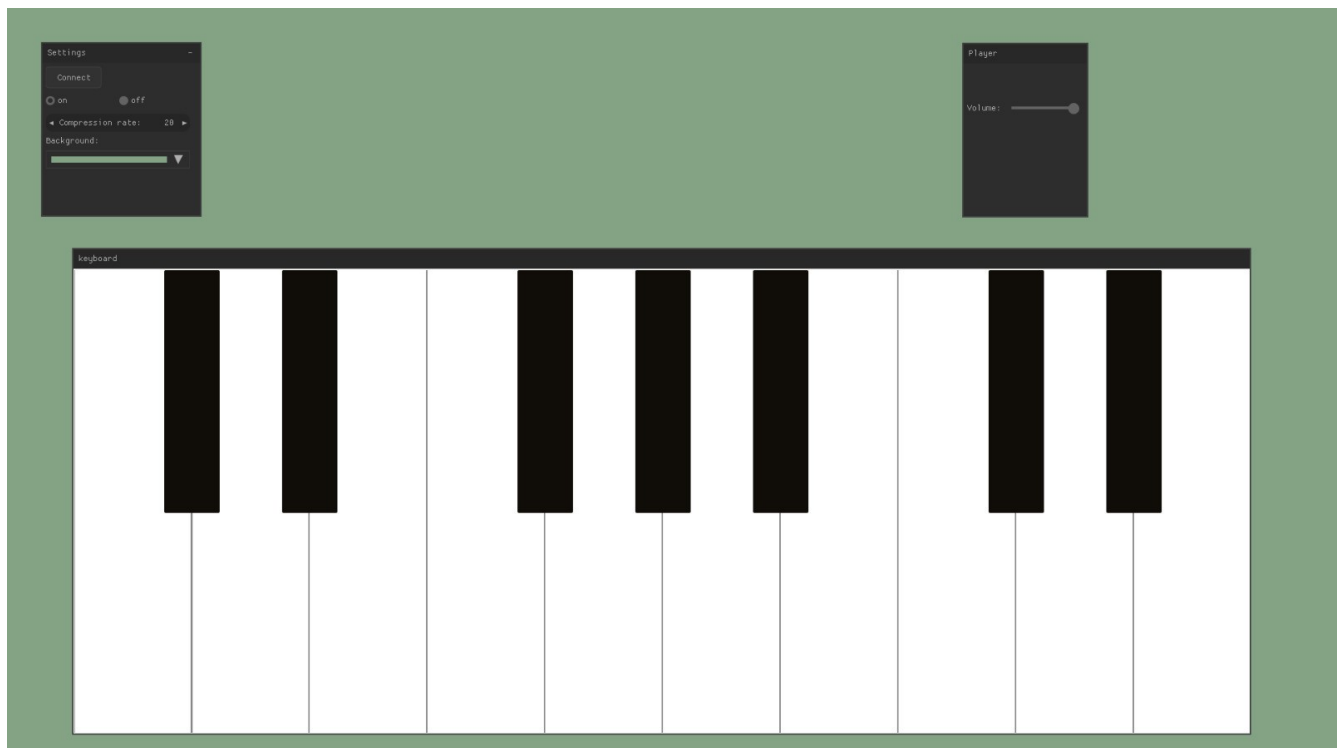
1 – Due to the unecessity of building the circuit for the project, we will be emulating it using our own not yet written code.

2 – We had to subdue Atae's guitar amp to a surgical operation in order to look at its in-built compressor, mission which sourly failed as our attempts at understanding the circuit were not met due to our retardedness (literally and figuratively).

>A good mark could totally make up for our grief. :)

3 – The circuit, albeit resembling most of the circuits out there, was slowly built using our own knowledge and research until it unintentionally vaguely resembled usual circuits, upon which we've decided to lay it out as the standard build.

Midi keyboard:



Ressources:

1 – working computer

OR

1 – midi keyboard

OR

1 – 18 buttons and their respective jumping cables & 18 – 250 ohm resistors

The goal here is to be capable of outputting signals as a midi keyboard or a circuit would be capable of, straight out of the USB serial port into our arduino so that the latter can process it and input the resulting signal into the compressor, then using a menu, present the user options to control the compressor program, and then display the signals as well as generating a sound.

The virtual keyboard contains a little bit more than an octave and the latter's pitch will most likely end up configurable, meeting the user's desired sounds.

Note:

1 – The arduino code is not entirely our own, but will absolutely be once the programming for each part is done.

2 – It currently is extremely unstable and needs tremendous amounts of reinforcement.

The project is still under constant evaluation & work. It is planned to be ready by the demo date.

Thank you for your time and attention.

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