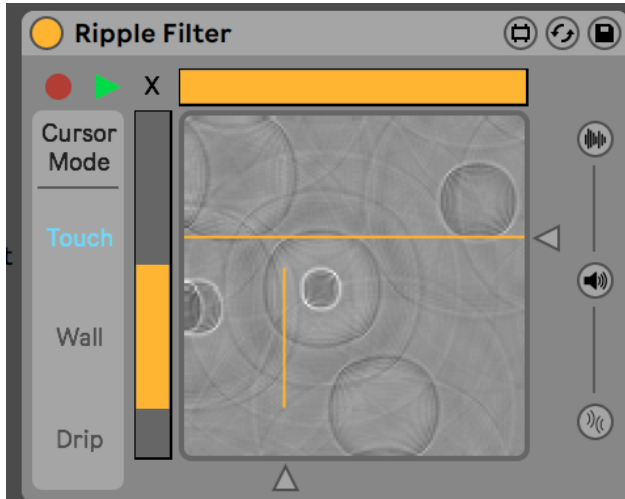


Ripple Filter Manual



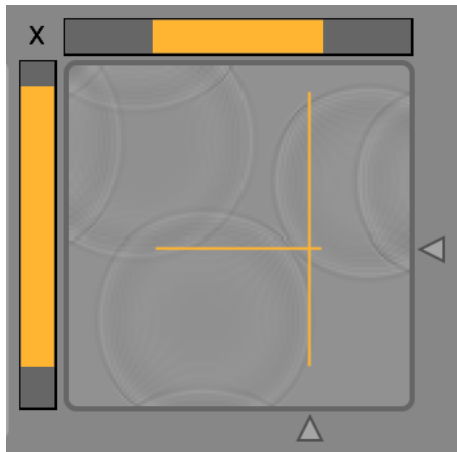
Ripple Filter is both an FFT filter and an oscillator bank controlled by a water ripple simulation. It is a max for live audio effect created by Dillon Bastan. 100% of sales for Ripple Filter will be donated to charities and organizations fighting against injustices and promoting human and animal rights and protecting the environment FOREVER! For the next 3 months (June-August 2020), the sales will be solely donated to aiding the BLM movement and Black LGBTQ+ orgs. Afterwards, the funds will be split amongst various organizations (and suggestions are welcome in the future). This is the first in hopefully a series of devices that will do this and hopefully can become a steady source of money to support positive change. So get a new audio toy and help others while you're at it!

Parameter Menus

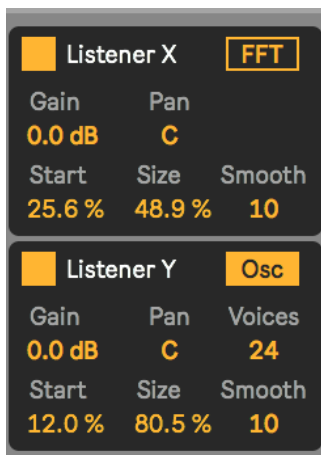


These buttons display the three parameter menus. The first button shows the menu for the input/outputs and auto drips. The second show the parameters for the Listeners. The third (bottom) button is for the parameters that control the water simulation.

Listeners



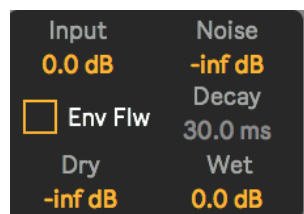
The water ripple simulation has two “listeners” that “listen” to slices of the simulation (one listener on the x axis and one on the y). These listeners can either be an FFT filter or an oscillator bank. The values of the water on any point of the segment the listener is listening to set the amplitude values of the FFT filter/oscillators. Above we see the listeners represented as orange lines. The triangle sliders on the right/bottom set the x/y position of the listeners. The range sliders on the top/left can crop the listeners so that only certain parts of the spectrum are sounded.



Above we see the parameter menu for the listeners. Each listener has individual panning, gain, smoothing, and choice between being an FFT filter or Oscillator

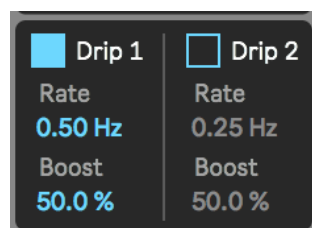
bank (with a variable amount of oscillator voices, up to 64). The start and size parameters refer to the filter cropping and are the same as the range sliders in the first picture, they are included here for mapping purposes and convenience. In FFT mode, the FFT filter filters either audio input or an internal noise oscillator (more details below). In oscillator mode, the sound is from sine oscillators so the audio input is not output in that case.

Input/Output



In the above picture, the "Input" volume controls the amount of signal sent to the FFT filter. The "Noise" controls the amount of volume of the internal noise oscillator sent to the FFT filter. "Env Flw" activates an envelope follower, which follows the input signal and attenuates the internal noise oscillator. "Decay" sets the decay of the envelope follower. (note: in oscillator bank mode, these parameters do nothing). Dry and wet do what you think they do :)

Auto Drips

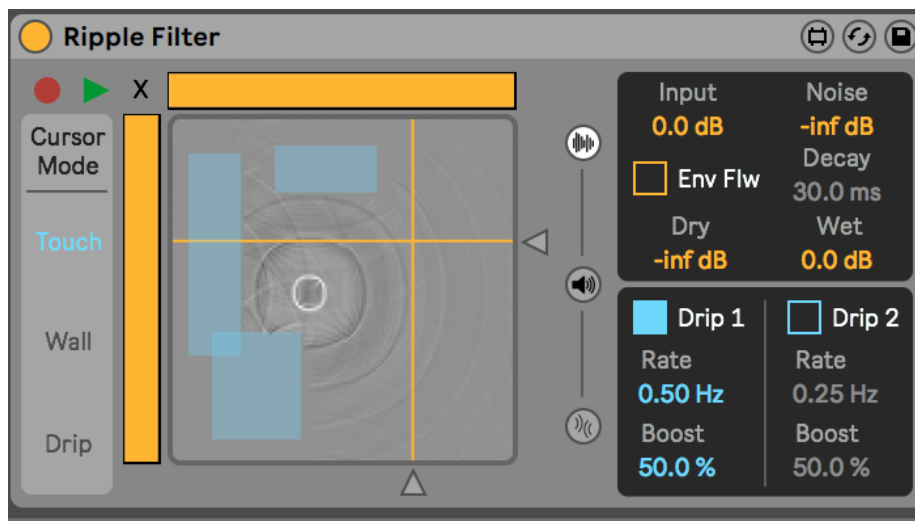


The parameters in the above picture are for the automatic drips, which automatically create ripples in the simulation. Positioning the two drips is described below.

Cursor Modes



There are three cursor modes, which determine the behavior when you click/drag the water simulation with your mouse. "Touch" allows you to create ripples when you click/drag. These ripples can be recorded and looped, this process is described below. "Wall" allows you to create blue walls (in the picture below) which ripples bounce off and can control the movement of the water. "Drip" allows you to change the position of the 2 automatic water drips.



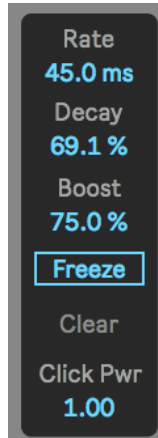
Ripple Recordings



The 3 buttons above the cursor mode selection allows for recording and playback of water ripples created from the "Touch" cursor mode. Each time a a recording is started/stopped, a new loop is created of the length that the recording was on for. Any ripples created by touch during that time are looped so long as the play

button is on (and subsequent recordings are overdubbed with their own loop lengths). "X" will delete all current recordings.

Simulation Menu



The above menu controls the water simulation behavior. "Rate" is the interval between each new frame of the simulation, shorter intervals result in a faster simulation. "Decay" determines how quickly/slowly ripples fade. "Boost" amplifies the values of the simulation. "Freeze" pauses the simulation, while "Clear" clears it. "Click Pwr" amplifies the ripples created from "Touch" cursor mode and recordings.

NOTE: there are no internal oscillators, but I highly recommend using the m4l LFO or another mappable modulation source to create further dynamics, especially mapping to listener positions or whatever you feel is best!

Thanks for getting Ripple Filter to help support others!!!!

For questions, comments, concerns, requests, issues, etc reach out to me via email or some other way (email: dillonbastan@gmail.com)