

Computer Card: Goldfish (Documentation)

Thank You to Tom Whitwell and Chris Johnson without whom this would not exist

What is it?

Goldfish is a weird delay/looper for both audio and CV... and a bunch of other stuff too! It is arranged into 3 mostly separate sections based on each row of outputs: Audio, CV, Pulses. These sections can be interconnected to achieve all kinds of effects. Explanation of how things work on the next page. Most of the code is just ruined versions of elements of [Chris Johnson's Utility Pair project](#) (Looper, Delay, Quantiser, and Clock Divider, all accounted for)

Goldfish can be a... Delay (patch your own feedback/mix), a looper, a quantizer, a clock divider, a CV mixer, a phaser(?), a vibrato, a chorus, a Karplus Strong synth (kind of), a drone machine, a chaotic noise generator, a bad reverb... and maybe more!

Tidbits

The delay/looper is loosely inspired by Morphagene (but without pre-recorded samples and... different)

The CV mixer is loosely inspired by the CV Mix circuit in the Moog Mother-32 if it had a baby with a DJ mixer. Each of the two channels is normaled to something useful (noise, adjustable constant voltage from -6 to 6V) and then when you input signals they replace these and can then be attenuverted. Automation of the xfade is also possible.

The Sample and hold functionality is based on a technique used in the Moog Mavis: Regular sampling of a repeating signal gives you a repeating pattern (sometimes). Add the quantizer and this can be used as a fun (and unstable) sequencer.

The clock divider is simple but by combining it with the reset trig input allows you to set a sequence loop length

Have fun and DO reach out if you have issues/questions. PRs and emails welcome. dessertplanet.dune@gmail.com

