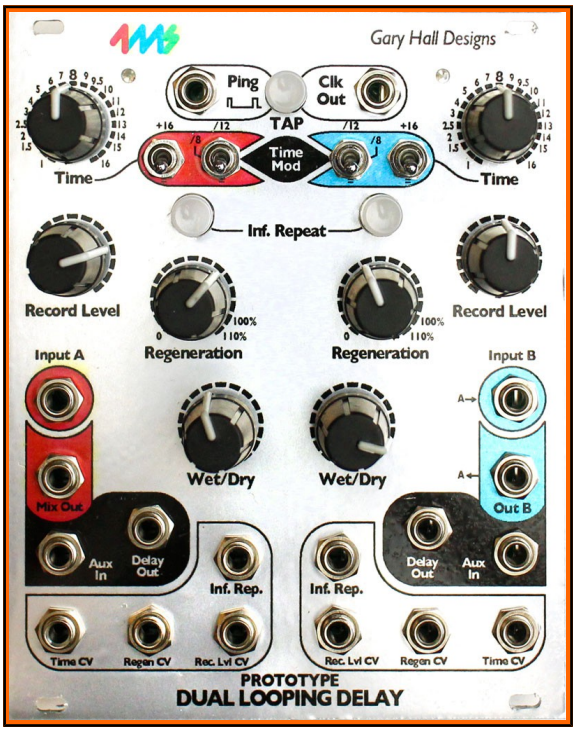


# Dual Looping Delay

### Eurorack module from 4ms Company

April 2015

The **4ms Dual Looping Delay** (or **DLD**) is an advanced audio processor for creative synthesis. Not a tape or analog emulation but a modern crystal-clear digital delay, the DLD combines features of ***delay***, ***looping***, and sample-tight ***synchronization*** for powerful and dynamic sound capture and modification. The DLD is designed to integrate seamlessly with modular timebase and sequencing devices such as the 4ms Quad Clock Distributor (QCD), etc.

## What is a "Looping Delay"?

Modern looping devices grew directly from hardware digital delays of the late 70s and early 80s. A *looping delay*, modeled on units such as the classic Lexicon PCM42, has the very long storage times associated with dedicated looping, but without triggered record and playback functions.

By default, a looping delay records and plays continuously, though recording can be suspended at any time with *Infinite Repeat*. Sustain of delays and loops is mainly accomplished with regeneration, allowing an organic, evolving approach to sound creation as new material replaces old, more or less gradually. The **4ms Dual Looping Delay** also provides advanced clock input and output facilities that allow for locking delayed and looped material with sequencers and rhythm devices of all descriptions.

## Key Features:

- **Two independent delay/loop channels**, synchronized to a common time base
- **Up to 88 seconds** storage time for each channel, at 48kHz/16-bit
- Normaled connections of input and output for flexible use in mono, stereo, or dual mode
- **Tap tempo** and clock **Ping** input
- **Delay/loop time** set as a number of musical beats, up to 32
- **Sample accurate clock output** for perfect synchronization!
- **"Time Math" switches** for rhythmic delays in 32nd note and triplet time
- **Digital regeneration**, up to 110%
- **Record Level** control, independent of dry signal mix
- **Delay-only Out** and **Aux In** for feedback with external modules
- **Infinite Repeat** mode disables input and fixes regeneration at exactly 100%
- **Triggered toggle input** for Infinite Repeat
- **Voltage control** of Time, Record Level, and Regeneration
- **Firmware-updateable** as new features are developed

**Available Summer 2015**

The **4ms Dual Looping Delay** is conceived and designed by ***Gary Hall***.
Implemented and manufactured by **4ms Company** Portland, USA. *www.4mscompany.com*