



To download a Combinator patch that plays a complex beat, go to [keyboardmag.com](http://keyboardmag.com). Got Reason patching tricks to share? Click on "Forum" and let us know – you could wind up in the magazine or on our site!

# MODULAR PATCHING IN REASON

by Jim Aikin

The control input and output jacks on the rear panels of the virtual rackmount devices in Propellerhead Reason make it a full modular sound design environment. But older Reason modules, such as Subtractor and Malström, have only a limited set of control inputs.

What if you're already using a Subtractor's first LFO to control something, and you

need an external LFO (or even the same LFO) to control, say, the Mix knob or Filter 2 Resonance? There are no rear-panel inputs for these parameters, and Subtractor's front panel only lets you send an LFO to one destination. The trick is to use Reason's Combinator module, which lets you send control signals to any parameter. In the steps below, we'll show you how. The online song

shows how I like to modulate stuff in different devices – panning in a mixer, the P1 knob in a Scream, and wet/dry mix in a DDL-1 delay – using a single LFO.

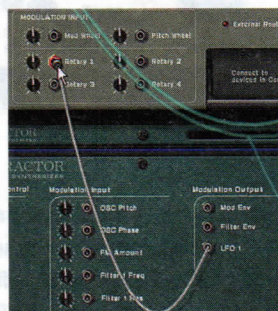
One caveat: Modulation signal routings in Reason are monophonic. If you use a Subtractor as a mod source, only the envelopes and LFO from the first of its voices will go out its virtual jacks. ☒



**Step 1.** Create a Combinator and put a Subtractor in it. This will be the sound source, so name it "Sound Src." Reason will automatically patch its audio output to the Combinator's From Devices input.



**Step 2.** Create a second Subtractor as a modulation source, and name it Mod Source. Make sure its Polyphony is set to 1, and activate the Low Bandwidth switch to save a little processing power.



**Step 3.** Flip to the rear panel using the Tab key. Patch the LFO output from Mod Source into the Rotary 1 input on the back of the Combinator. This makes the LFO signal available to anything in the Combinator.



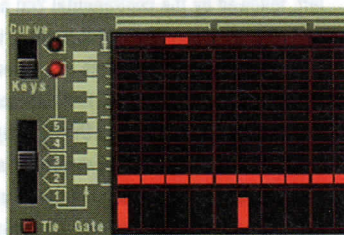
**Step 4.** Click the Combinator's Show Programmer button and select the row for the Sound Src device. Use the pop-up menu by the Rotary 1 Source to select whatever parameter you want to modulate.



**Step 5.** If desired, add more modulation destinations by selecting Rotary 1 as the Source. Adjust the modulation depths with the Min and Max settings.



**Step 6.** Edit the LFO rate and waveform in Mod Source to create something tasty, such as a synced square wave for a rhythmic pulse.



**Step 7.** For more complex rhythms, gate the Mod Source from a Matrix Pattern Sequencer, set up a Matrix pattern, and patch the envelope outputs of the Mod Source into the Combinator's Rotaries.