



# LADY GAGA'S "POKER FACE" BASS LINE

by Mitchell Sigman

Lady Gaga stormed the charts last year with "Poker Face," produced and programmed by studio ace RedOne. In our interview in the Oct. '09 issue, he

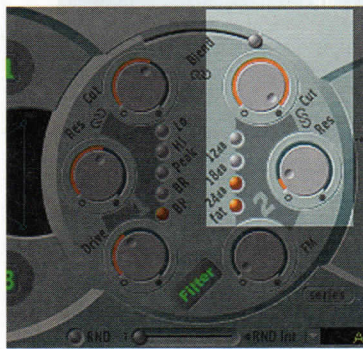
confessed to being a big user of the soft synths included with Apple Logic Pro, so we'll tackle this tune's massive, robotic bass riff using Logic's ES2 synth. If you're

not using Logic, you can use any virtual or real analog synth you like, but use one with at least two oscillators and/or a unison mode, because this a huge patch! **[K]**



**Step 1.** Start with big, chewy oscillators. Osc 1 is set to a square wave, Osc 2 is a sawtooth, and Osc 3 is set up for pulse width modulation (see next step).

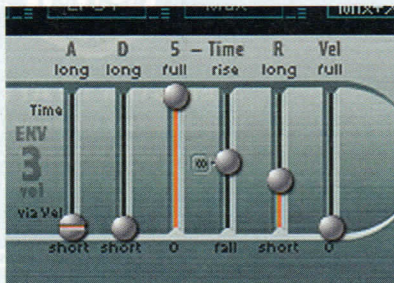
Osc 1 is tuned -24 steps (two octaves down), and Osc 2 and 3 are tuned to -12, putting them an octave above Osc 1. Ocs 2 and 3 are also tuned up and down 10 cents, respectively, for some natural chorusing.



**Step 4.** Filter settings are simple. Move the Blend slider all the way to the right so only Filter 2 is used. Click the 24dB (per octave, the filter mode) and Fat buttons. Cutoff is all the way open, and Resonance is up just a bit to add some high frequency fizz.



**Step 2.** Osc 3 is set up for pulse width modulation. PWM lets you affect the width of a pulse wave using a modulation source to add timbral and pitch animation. Here I've set LFO2 to a triangle wave at 2.0Hz, and have it modulating the pulse width of Osc 3's waveform.



**Step 5.** The volume envelope has the A and D sliders (attack and decay) at zero, S (sustain) full up, and R (release) at 160ms.



**Step 3.** Set the mix level of the three oscillators to taste using the triangular mix grid. I pulled it toward Ocs 2 and 3 for a more "hyped" sound.



**Step 6.** In the voice assign section, click the Mono (one note at a time) and Unison buttons. I set the Voices parameter to four — hitting each key actually triggers four notes that ES2 automatically detunes and pans across the stereo image. Since this is a three-oscillator patch, that means each note plays 12 oscillators! You can define how much the unison notes are detuned from each other using the Analog knob at the far left of ES2's control panel. I set it to 0.459 — pretty seasick!