PRO 2 Patch Templates

Some synthesizer users always build patches from scratch, and for these people, adjusting oscillators, filters, and modulation routings is a ritual that is integral for the process of creating a new piece of music. In essence, you are building a completely new instrument or designing a completely unique sound for a composition. For the vast majority of users, synth programming usually starts with a preset and making some modification until the right sound fits within the arrangement, and it's this particular application that inspired this bank of templates for the Dave Smith Instruments Pro 2 synthesizer.

As you go through the patches, consult this document for application and performance notes as well as suggest patch modifications.

All patches load into User Bank 2 on the Dave Smith Instruments Pro 2. Please consult the manual on how to load the sysex file to your Pro 2.

Patch   Title

1. **kurt_k PRO2 Tmplates**
   Patch Bank Title Page is a rhythmic sequence patch

2. **Bass Template**
   This is a basic two oscillator bass patch that utilizes both the low pass and state variable filters in series to create a typical synth bass with a slight filter attack. Try adjusting the oscillator shape, filter settings and filter envelope settings to modify this patch.

3. **Velocity Bass Tmp**
   Similar to patch 2, this patch uses velocity modulation of the filter envelope and amp envelope to add dynamics and timbral performance control. Adjusting the velocity amount values of the envelopes will change the performance sensitivity. You may need to compensate with the filter cutoff amount as you decrease velocity modulation.

4. **TwoSub Bass Tmp**
   This patch relies on two oscillators for the fundamental and sub harmonic for the primary bass sound. Osc 2 level is controlled by Aux Env 4 for an added attack sub harmonic to add a fuller sounding bass tone. Try adjusting the oscillator levels and shapes.

5. **FM Sub Bass Tmp**
   Two sine wave oscillators act as FM operators. Osc 1 is the carrier being modulated by Osc 2. Aux Envelope 4 modulates the pitch of Osc1 to create the bending attack sound, and Aux Env 5 modulates the FM amount to add the "bite" attack.   The sound itself is generated by Osc 1; Osc 2 is only the modulation source and does not pass through the audio chain. Try adjusting the pitch of Osc 2 to alter the harmonic character. Sine waves are the easiest to control with FM, but you can try different oscillator shapes to really alter the tone.

6. **AM Bass Tmp**
   This template patch creates a gritty bass tone by using two oscillators to modulate the amplitude of triangle wave oscillator (Osc 1). Technically it's a

chain where Osc 3 modulates Osc 2, and Osc2 modulates Osc 1. Changing the pitch of Oscillators 2 and 3 up and down octaves, ultimately changes the character of Osc 1. This patch can quickly lead to cool "digital" bass tones by changing the oscillator shapes.

7. **Wavetable Bass Tmp**

   Layering multiple oscillators is a technique that can quickly get you "bigger" sounds. This template patch simply uses three oscillators with different waveforms stacked. Osc 3 is pitched down an octave for a sub harmonic. Try experimenting with different shapes. The "punch" is a fast Filter 1 envelope modulation, so alter these settings to extend the decay.

8. **Wavetable Mod Bass T**

   Another method of altering tonal characteristics is to adjust the Shape Mod control of an oscillator. This template uses a fast decaying slope from Aux Env. 4 to quickly shift the shape of Osc 1. Try changing the Osc1 Shape, and the Wave Left and Wave Right waveforms. The envelope causes the oscillator to sweep through all three wave shapes on Osc 1 to create a unique bass attack.

9. **Analog Bass Template**

   This template uses three stacked analog wave shape oscillators, a sawtooth, pulse, and square. The Slop amount is set to 11 to add slight pitch variations on each oscillator to create a vintage style of tone that mimics old unstable oscillators. Changing the wave Shape on oscillators 1 and 2 will lead to completely new sounds, but for bass sounds, you should leave the sub harmonic on oscillator 3 as a square wave.

10. **Fifth Bass Template**

    This is another template that uses Slop modulation to simulate analog oscillators. In this case, all three oscillators are pulses waves with different pitch values. Osc 2 is a fifth below Osc 1, and Osc 3 is an octave below Osc 1. This creates a kind of bass power chord. Adjust the Filter and filter envelope modulation to shape this in a more useful fashion.

11. **HighPass Bass Tmp**

    The typical bass has a tendency to rely on the lowpass filter to emphasize the fundamental pitch of the note. In more modern productions, the bass is layered

with some higher tones and this patch achieves this by splitting the oscillator routings through the two filters. The State Variable filter is set to high pass mode and the harmonics of oscillator 3 add a buzz layer on the top of the sound. Try playing and adjusting the Filter 2 parameters to shape this tone, and also try changing the wave shape on oscillator 3.

12. Basic Saw Lead

The brassy lead sound from a sawtooth oscillator is fairly ubiquitous in the synth world. Every keyboard has this sound, and people love to run it into delays and play it with lots of pitch bends.   Before making primary control modifications to this patch, try going into Misc Params window and adjusting Glide Mode to get a feel for the different portamento styles. Also try toggling "Retrigger" on and off to hear how retriggering envelopes changes the sound. Also try some of the non paraphonic key assign modes.

13. Basic Sync Saw Lead

Oscillator Sync is an old school technique of wave shaping that makes gritty timbres that are great for lead patches. In this template only Oscillator 1 is synced to Oscillator 2 (which sets the root pitch). Only Oscillator 1 passes audio, and making Osc 1 Pitch adjustments alters the timbral character. First try coarse and fine pitch adjustments to hear how the harmonics change, then try different shapes. You can even switch off Key Follow on Osc 1 (meaning the oscillator doesn't change pitch along the keyboard). Because the wave is reset with each cycle of Osc 2, Oscillator 1 still plays a musical scale.

14. Sweep Sync Saw Lead

This template relies on the Filter 1 envelope to modulate both the filter cutoff and the Osc 1 Pitch. It's essentially the same patch as 13, but with the envelope modulation added on the mod routing bus. Try adjusting the filter envelope values to create harmonic sweeps of the synced oscillator 1.

15. LFO Sync Saw Lead

LFO 2 (Low Frequency Oscillator) is constantly modulating the pitch of the synced Oscillator 1 pitch, creating a moving series of timbres. Try adjusting the LFO 2 Frequency, Amount, and Shape values to alter the tonal changes. Random is a particularly nice LFO shape on this patch.

16. Unison Square Lead

"Unison" is typically a feature of polyphonic synths where all of the synth voices are stacked and played as a mono voice. This creates a heavy stacked lead sound. With this patch, the four oscillators have virtually identical settings except slop and fine tune adjustments that are different. To create different unison patches, make shape and mod changes on all four oscillators. Hold down a selector button for a few seconds until all four oscillator buttons are lit, then make parameter changes.

17. Basic PWM Lead

PWM or Pulse Width Modulation is another classic analog oscillator sound where a square wave rise and fall periods are offset over the cycle of the wave; this is the shape mod control of a pulse wave on the Pro2. A triangle wave from LFO 2 modulates Osc 1 Shape Mod, so try adjusting the LFO frequency to make the modulation more textural and gradual or faster, more frantic sounding.

18. Basic PWM Reese

The classic "Reese Bass" sound is essentially PWM sound with an Envelope sweeping the pitch up then back down to the root note. LFO 2 controls the PWM depth, and Aux Env. 4 controls the pitch sweep. First adjust the Env 4. Attack and Decay time constants to shape the pitch sweep, then the LFO 2 Frequency to shape the timbral characteristics of the PWM.

19. Filter Keyfollow

On the Filter menu pages the Key>F1Freq parameter adjusts the keyboard follow modulation, meaning the filter cutoff is controlled by the note value from the keyboard. When this parameter is set to 64, the filter is very closely tuned to chromatic scale, and when set to self oscillation, you can play a melody on the filter alone. To facilitate the resonating oscillator a bit of noise is injected from Oscillator 2. To maintain the tuning, do not adjust Oscillator 2 or any of the filter settings. Try adjusting oscillator 1 shape and shape mod, and also try routing filter 1 into filter 2. Adjusting the feedback parameter can lead to bizarre results. The self-oscillating low pass filter also plays well with the Pro 2 distortion.

20. 4Osc Lead Template

The classic Minimoog synthesizer has three oscillators and a noise generator,

and this patch template is modeled after this architecture. Envelope 4 provides a slight pitch modulation on all of the oscillators to simulate errant voltages on the attack stage and slop modulation is also added. Try adjusting the Filter and Filter envelope parameters as well as the Amp Envelope to alter the dynamics of this patch.

21. Brass Template

Another characteristic of lead patches is the mimicking of vibrato. Vibrato is usually created by using an LFO to make subtle changes of oscillator pitch. In this case, the vibrato intensity is controlled by Aux Env. 4. Hold down a key and wait for the vibrato to fade in, and try making adjustments to LFO 1 and Aux Env 4. to change the vibrato intensity and speed. For those a little more adventurous, try adding Aftertouch to LFO1Freq modulation for added performance characteristics.

22. Sawtooth Paraphonic

Setting up Paraphonic patches on the Pro2 can be a bit time consuming, which is why this set of templates has been added to skip ahead of the tedium. Just make filter and amp envelope adjusts as needed with these base patches. Then try adding delays, distortion, and character settings.

23. Square Paraphonic

24. PWM Paraphonic

The pulse width modulation is controlled by LFO2, Adjusting the frequency and shape will affect all four oscillators, however, the intensity is set in the modulation bus. If you wish to change the intensity, you will need to adjust the amount on Mod 5, Mod 6, Mod 7, and Mod 8 which route LFO2 to each of the OSC x Shape Mod values.

25. Gated Paraphonic

LFO3 generates a slewed square wave pulse set to 8th note divisions of the master clock. This pulse is routed to the Filter 1 Cutoff Frequency to create a gating effect. Try adjusting the LFO 3 slew rate parameter and Filter 1 parameters to alter the gating pattern, depth and speed. The Delays are also enabled on this patch for instant stereo gratification.

26. ShapeMod Paraphonic

LFO2 generates a triangle wave that modulates the shape mod on all four oscillators in this paraphonic patch. Each of the oscillators has identical shape, wave left, and wave right values. It's recommended that if you start changing the shape values, keep them the same on all four oscillators.

27. Sine Paraphonic

It may sound boring, but start tweaking the character parameters and add distortion for some lovely textures. Also try adding delays 1 and 2 which are panned to create stereo echos.

28. Sine FM Paraphonic

This is the sine paraphonic patch with a small amount of FM modulation between all four oscillators. As you play different chords, the FM modulation starts to create different harmonics. Again, play with distortion and character settings to get the most out of this patch.

29. Paraphonic Pad Tmp

This is a generic pad template based on paraphonic supersaws. Stereo delays create the widening effect. For these types of sounds, it's not recommended to create sweeping filter modulations because each time you trigger the envelope, the filter opens which doesn't lend well to "pad" sounds.   Find a good static point for the filter cutoff setting and leave it.

30. Stereo Chorus Paraph

One of the tricks with Delay Pan is to send a DC offset value of 127 or -127 in addition to the Pan value set on the Delay Filter page. This pushes the delay pan hard left or right. LFO 2 provides a very subtle delay time modulation to create the pitch variations of a chorusing effect. Use this as a template for any type of stereo paraphonic patch without making changes to these panning and delay modulation parameters.

31. Stereo Haas Paraphon

This paraphonic template pans the dry signal off center and pans a slightly delayed signal opposite to generate a haas stereo effect. Don't alter the panning modulation or delay settings to maintain the stereo effect. Just change the shape, shape mod, and filter cutoff parameters to tailor the sound.

32. SuperSaw Paraphonic

Just the Dave Smith SuperSaws! Play with the Filter 1 cutoff.

33. Key Pan Paraphonic

The last note played alters the panning. This type of modulation works better with a polyphonic synth like the Prophet 12, but it can lend to interesting placement in a mix depending on how it's played.

34. LFO Shape Paraphonic

All four oscillators shape mod are under the control of LFO2. The modulation is fairly deep compared to patch 26, however the rest of the architecture is fairly similar. Make Shape adjustments identical on all four oscillators.

35. Tremolo Triangle Par

LFO 2 modulates the Voltage Controlled Amplifier to create tremolo effect on this triangle oscillator based paraphonic patch. Adjust the LFO 2 parameters to alter the rate and depth of dynamics changes.

36. Reverb Paraphonic

All four delays are panned and filtered to create a reverb echo effect on this paraphonic patch. Try making changes to the delay times and filter settings to alter the reverb characteristics and then change the amp envelope time constants to create a pad sound.

37. Delay Sweep Chorus

Previous patches have used the Delay chorus effect, but this one is far more basic and monophonic. LFO 3 modulates the the Delay 1 time, so try making adjustments first to Delay 1 feedback, then the LFO 3 parameters. LFO 3 Amount should be low unless you want to hear some wild pitch variations.

38. Delay Stereo Chorus

This stereo chorus patch does not use the extra DC offset for hard panning of the delay signals. LFO 3 still controls the delay time modulation. More than anything this serves as a stereo chorus template, allowing you to work with all of the main oscillator, filter and envelope parameters.

39. Basic Stereo Tmpl

This template is a basic stereo spreading configuration using Delay 1 and 2. There is no delay time modulation for chorus. Again it serves as a basic patch for developing a stereo paraphonic instrument.

40. LFO 2X Panning

LFO 2 modulates the pan position to simulate a rotating speaker effect. The modulation is applied a second time to take advantage of the hard left/right panning. The oscillators use a mix of organ wavetables, but these could easily be modified with other shapes and shape mod settings. Also try changing the LFO 2 parameters to alter the panning behavior.

41. Delay Cross Panning

This patch is similar to #40 with the addition of a tempo synchronized delay. LFO 2 pans the amp output in one direction and the delay output in the opposite direction creating an animated stereo effect. LFO 2 is also tempo synchronized, so changes to the Frequency or Delay times will create interesting rhythmic results. The template is configured as an arpeggio patch, so try playing chords while adjusting parameters.

42. Delay Stereo Chorus

Duplicate but slightly different from previous chorusing patches.

43. Ping Pong Delays

The output amp and delay lines are configured with panning and time settings that create a ping-pong effect where the sound starts on one channel and bounces to the opposite channel. To keep the effect intact, do not change any of the delay settings or the modulation routings programmed for Pan. Change the oscillator, filter, and envelope settings to customize the sound.

44. Bipolar Sqr LFO2 Pan

Another panning template patch using a square wave to switch the pan position from hard left to hard right. Try adjusting the LFO 2 settings to modify the panning automation characteristics, and the oscillator, filter, and envelopes to alter the patch.

45. Wavetable Shape LFO2

LFO 2 is routed to the Oscillator 1 shape mod and causes the wave shape to sweep between the three different shapes. Modifying the LFO2 parameters alter the rate of change. Try changing the Osc 1 shapes to create new timbres. Bear in mind that "Super" and basic waveshape types do not access the Left and Right slots.

46. Wavetable Shape ENV2

This template uses Filter Envelope 2 to modulate the shape mod of Oscillator 1. Since Filter 2 goes unused in this patch, it would be a waste not to use the controls for parameter accessibility. Alter the time constants on Filter 2 Envelope to control the timbral morphing, and try selecting different wave shapes. Then, further shape the tone using Filter 1.

47. OSC1-2 X-Fade LFO2

Another timbral variation technique is crossfading between oscillators. This template uses LFO 2 to modulate the Osc 1 and Osc 2 output levels, allowing the creation of morphing between basic and "Super" wave shapes. Try changing the LFO 2 frequency and shape values, then try different shapes on Oscillator 1 and 2.

48. OSC1-2 X-Fade EnvF2

This crossfade template uses Filter Envelope 2 as a modulation source that controls the level fade between Oscillator 1 and 2. Play and hold a note to hear the full fade between the two oscillators. Adjust the Filter 2 attack and decay times to control the modulation rate, and also try different shape values. Oscillator 2 pitch is a fifth above oscillator 1, so try adjusting this as well.

49. LFO Freq Env Mod

This template is a sound effect created by varying the speed of LFO 3 which controls the level of oscillator 1. The LFO speed is controlled by Env 4, and the rate increases the longer the note is held. Try adjusting the time constants of Envelope 4, the LFO 3 shape, and the Oscillator 1 shape settings. Other LFO 3 modulation routings are set, try adjusting the amounts in the mod routing page.

50. Key Resonant Filter

This template is simply Filter 1 set to self-oscillation. Key following modulation

is set to Filter cutoff frequency, so the patch is close to chromatic scale. If it's really out of tune, try calibrating the filters in the Global page. Try adjusting the Filter 2 parameters, Amp Envelope, Feedback and try adding effects.

51. Noise Filter Sweep

Another sound effect template that sweeps the center frequency of the state variable filter set to band pass mode. This patch sweeps from low to high. Raise the Filter 2 cutoff amount to 133 and change the Filter 2 Envelope Amount to -127 to make the effect sweep from high to low. Also, try the different types of noise shapes on oscillator 1.

52. Notch Sweep Phaser

LFO 3 modulates the Filter 2 cutoff frequency to create a slow filter sweep. When the State Variable Filter, set to Notch mode, is modulated as such, the result renders a sweeping phaser type of effect.

53. OSC to Filter FM

This is a lead sound template that applies frequency modulation from an oscillator to the filter cutoff frequency. Osc 1 modulates Filter 1 and Osc 2 modulates Filter 2. With the right settings this creates some formant filter effects. Try adjusting the filter cutoff frequencies and filter routing parameters.

54. LFO2 Filter State

This template exploits a unique modulation routing in the Pro 2. LFO 2 sweeps the LP/Notch/HP parameter of the state variable filter, which generates a morphing filter sweep sound. Try adjusting the Filter 2 parameters, and then LFO 2 to control the sweep character.

55. FilterSweep+Feedback

On this sound effect template, Filter 1 Envelope is set to modulate both the filter cutoff frequency and the Feedback tuning parameter. Adjust the time constants to change the sweep characteristics, and then try adjusting the feedback parameters.

56. Red Noise Mod Source

This is another sound effect template that uses Osc 2 as a noise source to modulate the cutoff frequency and other parameters of Filter 2. This particular

routing creates a distortion by randomly changing the values of Filter 2. Try changing the filter 2 state and adjust the parameters. Also Try changing the Osc 1 shape and switch Osc 2 to different noise shapes.

57. Distortion Sine

This is a simple bass/lead template patch that layers two sine wave oscillators set at different pitches. Distortion is applied to create an interesting gritty tone. This is a useful patch for understanding the nature of the the Pro 2 distortion effect.   Try adjusting the output level of oscillator 2, and also try applying FM and AM modulation on Osc 1.

58. FM Bell

This is a classic application of FM synthesis with four operators.   Osc 1 and Osc 2 control the primary resonating tone and Osc 3/4 generate the initial attack or mallet tone. The best way to experiment with this patch is to hold down and oscillator selector button and navigate to the pitch parameter page. Start changing the individual pitch offsets of each of the oscillators to hear how the different pitch offsets create different sounding bell tones.

59. LFO Mod Env4 AD Time

This template has Envelope 4 set to repeat mode which means that it cycles for a period set by the Attack and Decay time constants. These time constants are then modulated by by LFO 2. Press and hold a key to hear how the Oscillator Level and Filter Cutoff modulation changes from sweeping to percussive as the LFO cycles. Try adjusting the Env 4 attack and decay settings, then try changing the modulation rate of LFO 2.

60. Inverted Filter Env

This paraphonic template utilizes a negative envelope modulation on Filter 1. When keys are pressed, the filter closes until the keys are released. Playing staccato notes creates bouncy filter sweeps. Try Adjusting the Filter 1 parameters and Filter 1 Envelope parameters to change the rate and character of the sweep.

61. Bitcrush Sines

The character FX are essentially forms of distortion. This paraphonic template is a set of sine wave piano tones running through the Decimate effect. As you

play notes, go into the character menu and adjust the decimate parameter to hear how it changes at different amounts.

62. OscLvl Sweep Hack

Hack is another form of digital distortion that is particularly sensitive to dynamics. This template uses Env 4 to increase the output level of Oscillator 1 going through the hack distortion. Play and hold a note to get a feel for the effect, then try adjusting the Env 4 time parameters. Also try different wave shapes on Oscillator 1.

63. Air Girth LFO Modula

Air and Girth are frequency response modifiers in the digital oscillator section of the Pro 2. LFO 2 is routed to modulate Air, and LFO 3 modulates Girth on this sawtooth lead template. The effect is subtle and adds a little instability to the oscillator tones. Try adjusting the LFO parameters as well as the Air and Girth parameters to alter the tone.

64. LFO2 Filter Mod

The "helicopter" sound effect is generated by routing LFO2 to the Filter 1 cutoff frequency. The Reverse Saw waveform of LFO 2 is softened by Slew Rate control. Try adjusting the LFO 2 Slew Rate to hear the modulation change shape.

65. LFO2 Feedback

This "howling wind" sound effect is created using the comb filtering effect applied when a feedback amount is applied to noise going through filter 1. LFO 2 constantly changes the feedback tuning, so try changing the speed and shape to alter the character. Adjust the feedback parameters to hear the difference between positive and negative feedback.

66. Sample & Hold OSC

This is a sound effect template that creates a classic sample & hold random pitch sound by using the random shape of the LFOs controlling the oscillator frequency. LFO 1-4 control Oscillators 1-4 respectively, so there are four different random notes being played. The four LFOs are synchronized to the internal clock, so try changing the rate on each LFO for different rhythmic

patterns. Also try changing the oscillator wave shapes for some bizarre random effects.

67. Sample & Hold Filter

The classic "computer" processing sound effect is a random sample & hold modulation of a resonant filter. LFO 1 modulates the Filter 1 cutoff frequency on this template. Try adjusting the LFO 1 parameters and then try different wave shapes on Oscillator 1.

68. S&H Filters+Feedback

This template is similar to patch 67, with the addition of a feedback loop through the filters. LFO 1-4 are all set to random step generators modulating Filter parameters as well as the feedback parameters. Try adjusting feedback tuning and amount, as well as the filter parameters to increase the artifacts and randomness.

69. Wavetable Sequence

Press the Play/Stop transport button to start the sequence - the trigger is assigned to the sequencer transport so playing notes will not generate any sound. Four oscillators are set to different wave shapes which play on every step of the sequence. Tracks 3, 4, 5, 6 are mapped to each oscillator output level. Go to each of these tracks and start enabling and disabling step buttons to alter the pattern. Also try changing the wave shapes on each of the oscillators.

70. Seq as Mod Source

This template uses the sequencer as a modulation source that controls the Filter 1 cutoff frequency. The sequencer is set to key trigger mode, so when a note is played, the sequencer automatically starts and modulates the filter over the course of 16 steps. The sequence is one sustained whole note, so the envelopes are not retriggered on each step. Track 2 of the sequence controls the filter cutoff frequency; as the sequence is running, enable, disable, and tie steps to alter the modulation pattern.

71. Key Trig Sequence

This template is a basic key triggered note sequence. Pressing a note starts the sequence and releasing the note stops the sequence. Pressing a note again

resumes the sequence at the point where it stopped. In order to start the sequence at the beginning, press the Reset button.

72. Seq Trig Sequence

This template is almost the same as patch 71, except the Play/Stop button starts the sequence. The sequence resumes at the point where it was last stopped unless you press Reset. As the sequence is running, try pressing the Reset button to force a reset that retriggers the loop.

73. Key Trig+Reset Seq

This variation of the sequencer template is probably the most "playable" because pressing a note both starts and resets the sequence. Try playing and changing the sequence key to get a feel for the sequence, then try altering the pattern on Track 1.

74. Seq Trig Key Reset S

This template acts as a monophonic synth patch until the sequence is engaged. Press Play on the sequencer to start the pattern, then use the keyboard to transpose and reset the sequence. This type of sequencer configuration makes it easier to make various parameter adjustments with as the pattern loops.

75. Wave Env2 Sequence

This sequence template is a variation of patch 69. Four different wave shapes play on each step of the sequence, and the output levels are enable and disabled on Tracks 2, 3, 4, and 5. Instead of controlling levels directly from the sequence, Filter 2 Envelope is routed via the sequencer to the four oscillator levels. Play the sequence and adjust the Filter 2 Envelope Decay knob to adjust the fade out duration for each step. Next try altering the patterns on Tracks 2-5. Once you have a feel for these features, modify the oscillator wave shapes and try setting the pitch offsets to musical intervals.

76. Filter 2 Env Ctrl Sq

This is essentially the same patch as 75. The main difference is that the oscillators are set to noise shapes. The envelope modulation works perfectly to create drum patterns which can be altered by enabling and disabling steps on Tracks 2-5.

77. Wave DlySync Sequenc

This template is a fully fleshed out version of patch 75, complete with effects and other modulation routings.

78. Env4 Ctrl Sequence

This template is another wave sequencer patch. Tracks 2-5 still control the step enable of the envelope generator to oscillator levels, however Aux Env 4. is the source. Go into the Env 4 edit page and adjust the envelope time constants to make changes to the step envelopes.

79. Env4 Drum Sequence

This template is another drum sequencer patch that uses Envelope 4 to control the oscillator levels. This frees up the use of both filters and filter envelopes for timbral shaping.

80. Percussion Sequence

This is yet another percussion sequence that uses the Filter 2 envelope generator to shape levels on each step.

81. Bass & Drums Seq

This sequence is a combination of musical and percussive elements. Oscillator 1 note sequence is controlled by Track 1, but the rhythm is controlled by Track 6. Oscillator 2 is a noise generator controlled by Track 3, and acts as a snare hit on steps 5/13. Oscillator 3 is another noise generator controlled by Envelope 4 through Sequencer Track 5 to create hi-hats. Oscillator 4 and the Sub oscillator are used to generate low drum sounds. Envelope 5 is the drum level modulation source and routes through Track 4 to control the Oscillator 4 sine wave, and also through Track 7 to the Oscillator 1 Sub Octave level. Try different shapes on Osc 1 and adjust the envelope time constants to further shape the percussive elements. Osc 4 pitch will change the character of the kick drum tone.

82. Drum Program

This drum sequence template can be primarily be altered by changing steps on sequencer Track 1. The noise generators are split to run through Filter 2 band pass filter, which allows for sharper sounding hats. Try adding distortion, hack, and decimate, then try setting filter 1 to self oscillate with some feedback.

83. Paraphonic Seq

Using paraphonic patches is another approach to automatically select a different oscillator for each note played in a sequence. This template uses this technique to switch between different wave shapes set on Oscillators 1-4. Try modifying the patch with different wave shapes and apply modulation like LFO to mod shape.

84. Env Trig Off Seq

This template plays a short melodic sequence with a filter sweep. The sweep engages as long as a note is held until released. Because the Env Trig/Step setting is off, the envelope generators are not retriggered with each sequencer step. Try switching on this parameter to compare the behavior, then switch it back off and adjust the filter sweep settings on Filter 1 and Filter 1 Envelope.

85. Arp UpDown 3 octaves

This template for an arpeggiated patch creates a fast cascade of notes that glides up and down three octaves. The optimal way to engage this patch is to play a four note chord like a minor 7th, or even just C, D, E, F. Octaves do not work as well as four completely different notes. Try adding some delay or other character effects to further enhance this patch.

86. Arp Play Note Seq

This template has the arpeggio set to "Assign" mode, so the arpeggio sequence follow the order that notes are played on the keyboard. Try playing something like a minor 7th chord, but play the notes sequentially in different orders. For example: Hold down F, then go up to C, then down to G#, and then up to D#. Instead of cycling up/down, the arpeggiator is following the order played.

87. Random Arp AM Sine

While this template has the feel of a random sample and hold style patch, it's musically tuned to the key of C. The key is set by Oscillator 1 which is fixed at C4. Oscillator 2 is controlled by the random arpeggio sequence and applies amplitude modulation to oscillator 1. Change the root key either by adjusting the Osc 1 pitch or by using the pitch bend wheel.

88. Arp+Delays

This template uses a 2 octave up/down arpeggio pattern and has stereo delays set to tempo synchronized durations. It's essentially an instant gratification arpeggio patch that can be quickly altered by changing the Osc 1 and Osc 2, wave shapes, filters, and envelope settings.

89. Filter Zap

Template for a basic synth percussion sound. A very fast envelope modulation of a resonant low pass filter creates this sound. Adjust the Filter 1 Envelop Amount parameter to change the intensity.

90. Resonant Filter Drum

This is a true analog drum sound that relies the low pass filter that's self-oscillating. Adjust the Filter 1 cutoff frequency to change the pitch, but leave the resonance at 127. Try adjusting the Filter 1 Envelope time constants and amount to change the pitch sweep modulation of the drum sound.

91. Beating Sine Drum

This template is a synthesized drum sound that relies on two sine wave oscillators that are slightly detuned. When the two oscillators play simultaneously, parts of the sound are cancelled which causes the tremolo or beating effect. To change the beating rate, adjust the Oscillator 2 Fine pitch parameter.

92. Snare Drum Template

This synthesized snare drum sound is a layer of a sine wave and violet noise shape. The two main adjustments to try on this patch are the Envelope 4 Decay setting, which controls the drum pitch character, and the Oscillator 2 shape mod which alters the snare rattle character.

93. Snare Scaled Decay

This snare sound is built off patch 92, but has velocity and key modulation of the snare duration.

94. Pulse Noise Cymbal

This percussion sound uses a synthesis technique of layering carefully tuned

Pulse waves. The combination of these pulse waves leads to a metallic ringing sound of cymbal. Try adjusting the pitch on the four oscillators to see how the character changes with different intervals and tunings. Use the filters to shape the noise, and Envelope 5 to apply some pitch decay to the sound.

95. Hand Clap

The synthesized hand clap relies on several envelope generators, carefully timed to open and close a filter or VCA in a short burst sequence. Experiment with different noise shapes and shape mod settings. For those who wish to dig deeper, try changing the Env 4 and Env 5 settings.

96. Pulse Noise Hihat

This template is based on the pulse noise cymbal patch 94, however the envelope settings have been adjusted for shorter durations to create a closed hi-hat sound. As you play notes, touch slider 2 to extend the duration of the envelopes to simulate an open hi-hat sound.

97. Noise HiHat

This Hi-Hat sound relies on noise generators rather than pulse wave layers. Slider 2 will modulate the decay settings to play open hats.

98. Sine Wave Drum Tmpl

This general drum template is a good starting point for creating low bass drums. Adjust the decay time constant on Envelope 4 to change the pitch sweep duration, and modify the dynamic character using the amplifier envelope settings. Because a tuned sine wave is the basis of this sound, it's suitable for playing melodic bass drum parts.

99. kurt_k-[Date]

Creation Date Stamp patch.