



PONG DELUXE

‘PongDeluxe’ is a **generative sequencer** inspired by the classic arcade game Pong. Fire moving balls around the grid to generate notes and create complex melodic and harmonic patterns.

The Arcade Series is a collection of generative sequencers that can be used on their own or integrated with Ableton supported controllers. Designed and created by Ableton Certified Trainer Mark Towers each device takes its inspiration from the hours spent in front of flickering screens down the local Arcade...

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GLOBAL CONTROLS

Control Surface Active

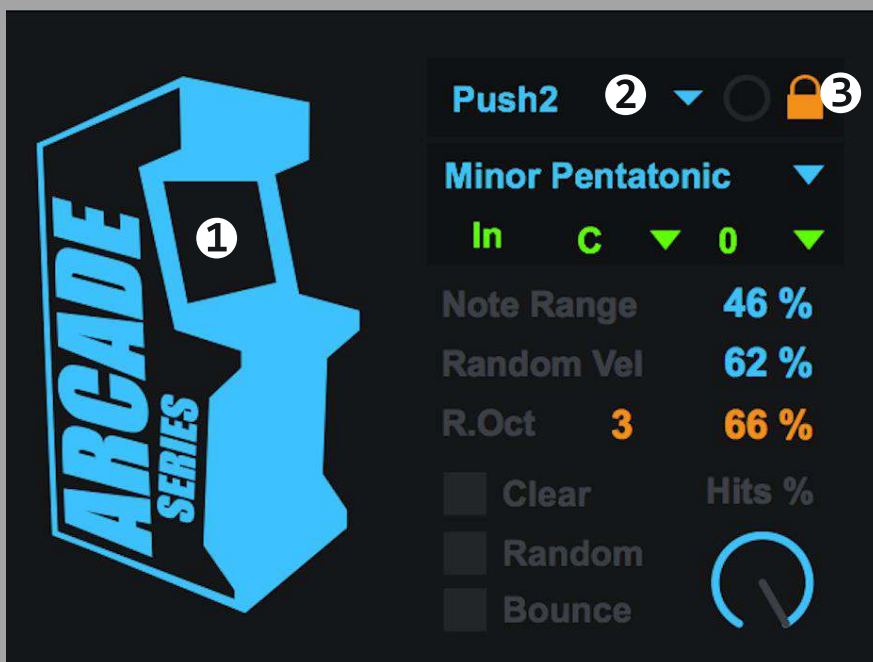
- 1 When the control surface is selected in the menu, this activator button will become active taking control of the control surface's 8x8 pad grid. Switching tracks or modes in Live will resume usual behavior until returning to the track containing PongDeluxe. Switching the activate button off will resume usual behavior of the control surface whilst keeping the device running in the background.

Control Surface Select Menu

- 2 Select the correct control surface from the menu as per the device version (Push1, Push2 etc.) If needed, pressing the button to the right will refresh the menu with all currently connected control surfaces.

Device Lock

- 3 Activating the device lock will lock the control surface to the device. This means that switching track will not affect the 8x8 pad grid which will still display and control PongDeluxe. This allows you to have multiple control surfaces being used with multiple Arcade devices.



MIDI & BEHAVIOR SETTINGS

1	Scale	Select a scale for the note output of the device. Any notes being generated will be forced into the selected scale.
2	Thru/In	MIDI information coming into Pong is routed thru the device by default so that you can continue to play an instrument while the device is running. Switching to 'In' disables the thru function and allows incoming MIDI notes to change the key and octave Pong uses to generate notes.
3	Tonic	Sets the root note for the scale
4	Octave	Transposes the notes being generated in octaves (-5/+5)
5	Note Range	Determines the range of semitones being generated, if set to 100% then a mixture of low and high pitch notes will be generated. Maximum range values will change depending on which scale is selected.
6	Random Velocity	Randomises the velocity of all notes generated. Turn to 100% for full effect or 0% to leave velocities unaltered.
7	Random Octave	Choose an octave range and the chance of octaves switching randomly as notes are generated.
8	Clear	Clears all running cells.
9	Random	Randomises the position and direction of all running cells.
10	Bounce	Forces all running cells to change their direction as if they had hit another moving cell.
11	Hits	Determines the chance of notes being generated. At 100% a note will be generated every time a cell hits the outer grid. At 0% no notes will be generated. This control can be useful if there are lots of notes being generated and you would like to ease it off.

The screenshot shows the following settings:

- Scale:** Minor Pentatonic (1)
- Thru/In:** In (2)
- Tonic:** C (3)
- Octave:** 0 (4)
- Note Range:** 46 % (5)
- Random Vel:** 62 % (6)
- R.Oct:** 3 (7)
- 66 %:** (8)
- Clear:** (8)
- Random:** (9)
- Bounce:** (10)
- Hits %:** (11)

Display Screen

Use a control surface or a mouse to trigger the main grid interface

Display Screen

- 1 The display screen shows active cells being generated by the sequencer. When moving cells meet, they change direction. When they hit the outer grid/wall they generate a note in accordance with the selected scale. It is possible to click in this area to trigger cells if you are not using a control surface.

Direction

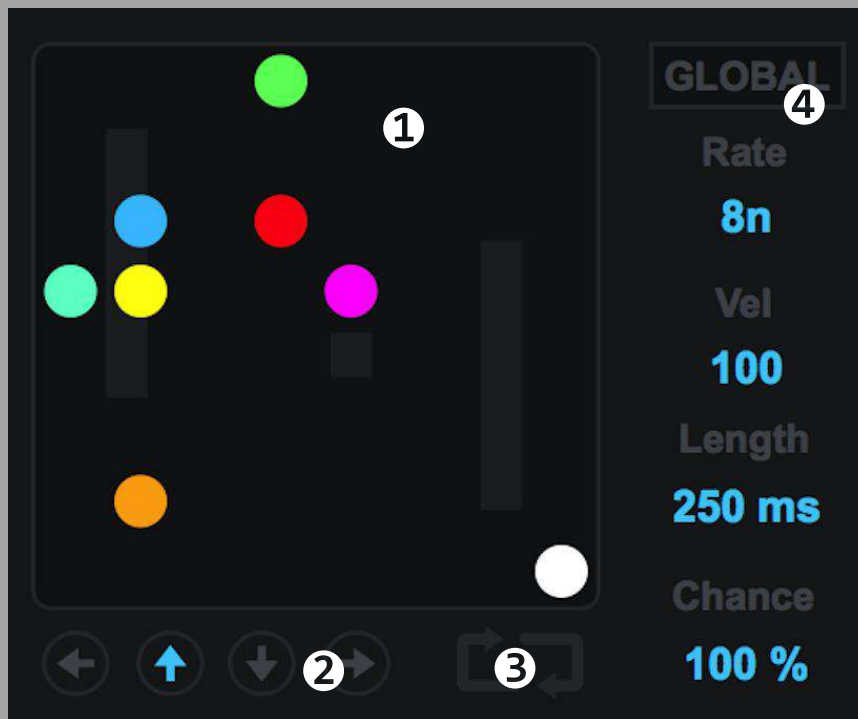
- 2 Set the direction of the next triggered cell via mouse or control surface.

Cell/Sequencer Toggle

- 3 Toggles the display to the right to show either the cell settings or the melodic sequencer.

Global Settings

- 4 If the 'GLOBAL' switch is turned on at the top, it is possible to use the settings below to update all of the 8 cells with the same settings such as : Rate, Velocity, Note Length and Chance.



CELL SETTINGS

At the heart of Pong are the 8 cells engines. Each cell can move in its own direction and at its own rate. When it collides with another cell it bounces and changes direction. When it hits the outer wall it will generate a note.

Cell Activator

- Whenever a new cell is generated by hitting a pad on a control surface, clicking the display screen with the mouse, or pressing a cell activator button, this button will light up to show which cells are active. Click again to turn a specific cell off. This can also be triggered via the scene launch buttons of supported control surfaces.

Rate

- Determines the rate at which a specific cell will run.

Velocity

- Determines the individual velocity of any notes generated by specific cell.

Note Length

- Determines the length of any notes generated by a specific cell.

Chance

- Determines the chance of a specific cell changing direction when it collides with another cell.

1		2		3		4	
2	10	8n	100	8n	100	8n	100
4 ms	100	250 ms	100 %	250 ms	100 %	250 ms	100 %
5		6		7		8	
8n	100	8n	100	8n	100	8n	100
250 ms	100 %	250 ms	100 %	250 ms	100 %	250 ms	100 %

Melodic Sequencer

The melodic sequencer allows for the chance-based and sometimes chaotic notes being generated by the Pong sequencer to be fed into a melodic step sequencer with its own velocity control and measure length.

Power

- 1 Switch the melodic sequencer on and it will collect the pitch information from the notes being generated by the Pong sequencer and constantly input them into the sequencer.

Overdub

- 2 When on, the sequencer will constantly use the new notes being generated to update the sequencer in real-time. If turned off, the sequencer will loop through the currently stored notes.

Random

- 3 Randomise velocity and duration settings of the sequencer.

Fold

- 4 Toggles the fold state of the sequencer allowing all notes to be visible.

Velocity/Length Toggle

- 5 Choose whether to view the velocity or duration of notes in the sequencer. Use the sliders to change the settings. Dragging velocity all the way down will effectively turn a note off for that step.

Swing

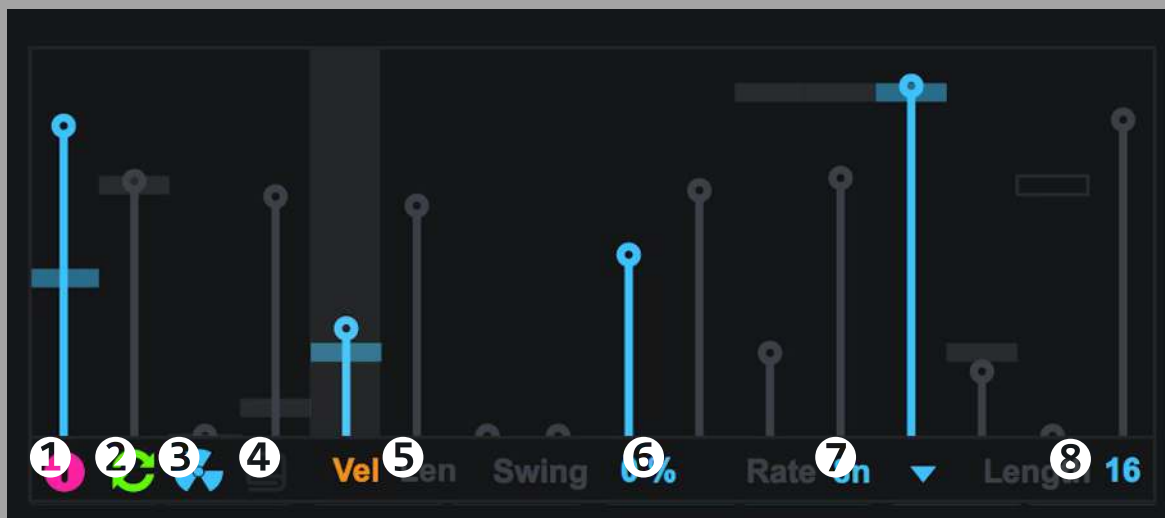
- 6 Determines the amount of swing applied to the melodic sequencer.

Rate

- 7 Rate determines that rate at which the melodic sequencer will run. This is independent from the rates at which the cells are operating at.

Length

- 8 Determines the length of the melodic sequencer (1-32).



Supported Control Surfaces

Push 1

Push 2

Launchpad Mk1

Launchpad Mk2

Launchpad Pro

8x8 Pads

- 1 The 8x8 pad grid will display the active cells as they move around. Pressing a new pad will trigger a cell from that position. The device will start with the first cell and work up as new cells are triggered. If all cells are active, retriggering pads will re-generate cells from the new position starting at 1.

Arrow Buttons

- 2 The arrow buttons determine the direction if the next cell to be generated. Retriggering cells will use the currently selected direction.

Scene Launch Buttons

- 3 The scene launch buttons will display the active cells 1-8. They can be used to deactivate or activate cells also.

Push Notes

- 4 If using Push, Pong Deluxe will simply take over the button matrix if the device is active and in note mode. It is still possible to switch to session mode as usual.

Launchpad Notes

- 5 If using Launchpad, Pong Deluxe uses the User mode on the Launchpad Pro and User 2 on Launchpad Mk1/Mk2.