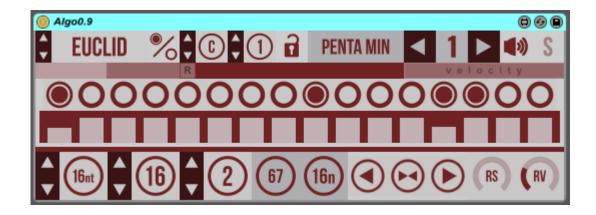
# Algo

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Algo is an algorithmic step sequencer, based around Bjorklund's euclidean algorithm, but also including 7 other modes, including 2 random modes. The position of notes is calculated from the number of steps in the sequence and the number of pulses entered. It can also be manually programmed and includes options for nudging, swing, speed, velocity and note duration, and randomisation for steps and velocity.

There are 9 instances of the sequencer so that 9 separate notes can be programmed, this is also shown by the colour.

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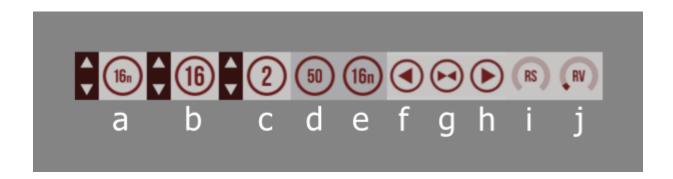
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### **Top Controls**



- a) Algorithm selector By default the Euclidean algorithm is selected, which will distribute pulses as evenly as possible across the number of steps. The number of steps and pulses are set at the bottom of the device. There are 8 algorithms in total, 2 of those are random and ReRndm, which recalculates the random sequence at the end of each period.
- b) Invert This will invert the pulses, on = off and off = on.
- c) Note Select the note for the currently shown instance of the sequencer. The note set for instance 1 is considered the root note, and any scale selection will set the other notes relative to this.
- d) Octave Set the octave for the currently shown instance of the sequencer.
- e) Lock Note This will prevent the current note from being changed if the scale selector is changed. By default, when the scale is changed then all of the notes will be set using that scale relative to the root note in instance 1.
- f) Scale select This will automatically change the note for each instance of the device, relative to the root note set in instance 1.
- g) Instance The device has 9 separate notes which can be programmed with independent algorithms and speeds. The colour of the device will reflect which instance is shown.
- h) Output By default all of the notes are muted. This allows you to set the desired sequence before starting playback for that note.
- i) Solo This will stop all other notes, and only play the currently shown sequenced note.

#### **Bottom Controls**



- a) Speed This sets the speed for the individual note being programmed.
- b) Number of steps Sets the number of steps from 2 to 16 for the sequence.
- c) Number of pulses Sets the number of pulses to be distributed across the steps according to the algorithm selected at the top.
- d) Swing amount This is global for all notes. Sets the amount of swing.
- e) Swing rate This is global for all notes. Sets the speed of the swing 8n or 16n.
- f) Nudge Left This will nudge all the pulses of the current sequence on step left.
- g) Centre This will set the position of the pulses to their original placement.
- h) Nudge Right This will nudge all the pulses of the current sequence one step right.
- i) Randomise Steps This will set the probability of each step playing a random step instead of the current step in the sequence.
- j) Randomise Velocity This will set the range of randomisation of velocity values from the value set in the device.

## **Main Display**

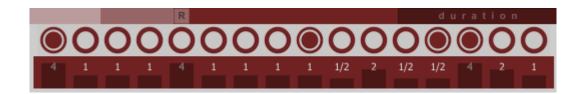


As the number of steps and number of pulses are changed you can see the sequence displayed here in the top row. You can also manually change any of the steps by clicking on them.

The bars show the velocity value for each step in the sequence. Sloping velocity levels can be easily set by clicking and dragging across the bars.

By default the velocity bars are shown. If the button is clicked on the right above the pulses, then the bar section will change to show note durations.

#### **Note Duration**



When the top right button is clicked, the display will toggle between note velocity and note duration.

The device was originally intended for percussive elements, but the inclusion of scale selection and note duration makes it more versatile to allow sequencing of melodic elements. Note lengths longer than 1 step can also allow for glide options if set in your synth.

The number displayed with the bar shows the duration of the note. A setting of 1 will play the note for a whole step.

The slider in the top left will scale all note duration amounts for all notes. This can allow for some interesting dynamic live control of the output of the device. There is also a reset button to set the scale value back to 100%.