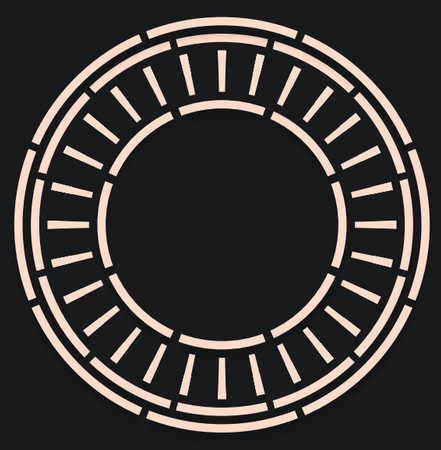
IRYS

User Guide



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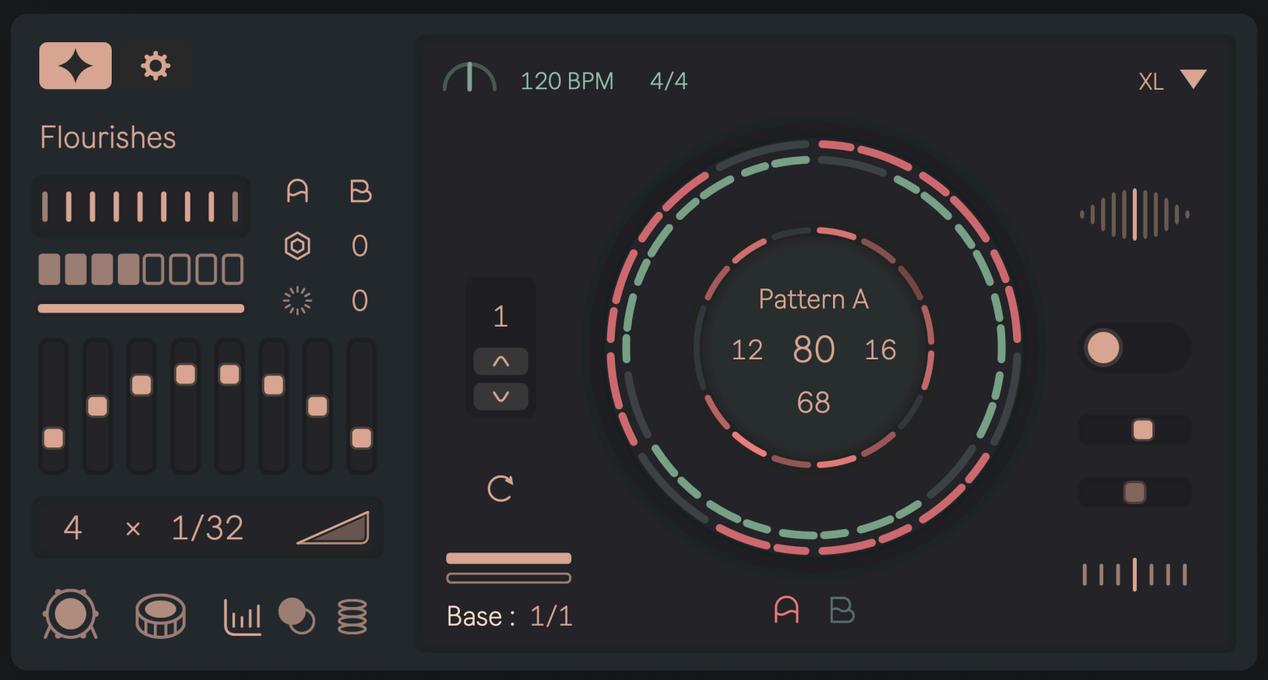
Contents

Irys is a Generative Rhythm Designer with a flair for stylish, intricate rhythms



Performing such rhythms fluenty demands a level of practise that usually takes years of dedicated practise to develop.

On the other hand, programming such rhythms convincingly often entails hours of meticulous micro-editing.

One solution to create interesting, somewhat intricate rhythms is to use some sort of step sequencer with randomisation.
Still, this often results in sequences that sound, well, random.

Irys address both of these challenges in two ways :

Foundational rhythmic phrases are easily created and shaped in terms of desired musical qualities instead of programming each individual note. These phrases are then embellished or punctuated in response to Kick and Snare MIDI notes.

This makes it possible (and surprisingly easy) to create delightfully detailed rhythms in real time by playing no more than a simple Kick and Snare groove on your MIDI controller.

Overview

Under the hood, Irys is driven by an interconnected network of rhythm modules.

Instead of attempting to emulate genre-specific rhythms, modules are characterised by the rhythmic behaviours they specialise in:

From musically-coherent Pattern generation, to intricate Flourishes, propulsive Accents, deliberate Rests, and playfully elastic rhythms with Spring Mode, all of these modules were designed to produce delightfully expressive rhythms that are adaptable to a wide range of musical styles and rhythmic contexts.

Irys is meant to be inserted before a Drum Rack.

By default, It recognises notes C1 and C#1 as Kicks and Snares and generates 4 streams of MIDI notes that are routed to E1, F1, F#1 and G1.

These notes can be changed in the Settings Panel.

Pattern Mode

Pattern A : Output A
Pattern B : Output B

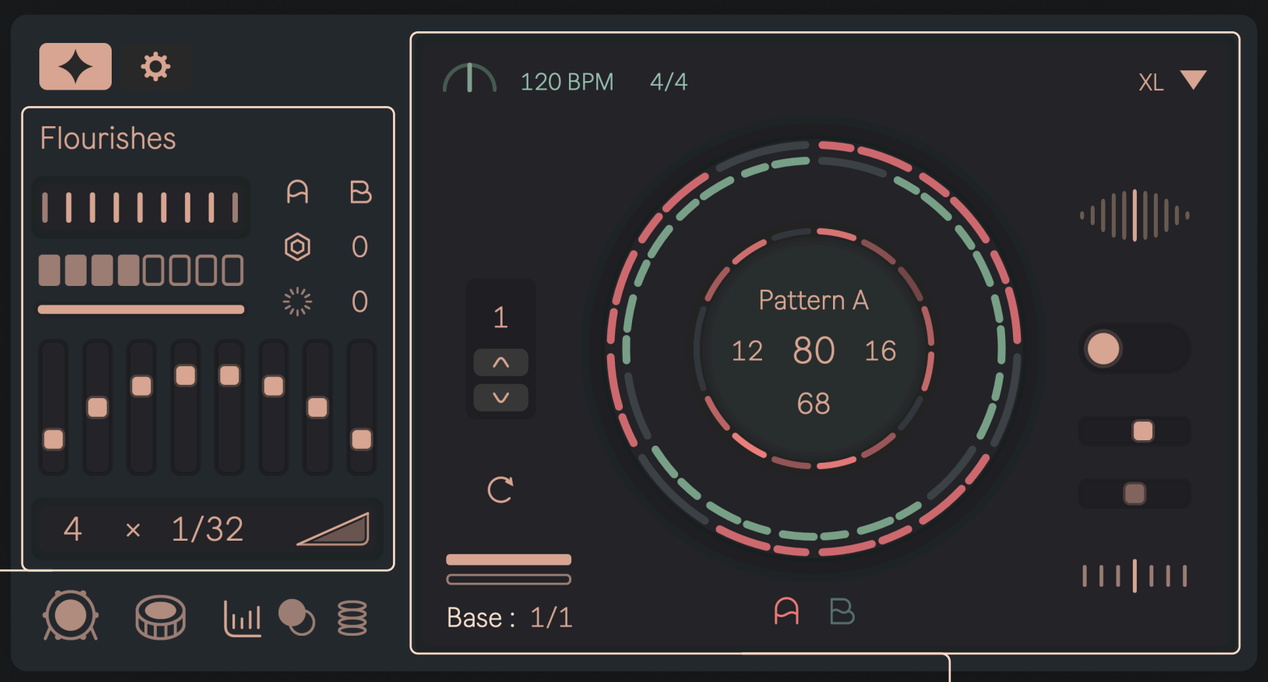
Flourishes : Output C
Accents : Output D

Spring Mode

A single stream of Pulses is cycled between Outputs A to C

Accents remain routed to Output D
Flourishes are disabled in Spring Mode

Layout



Side Panel

Houses parameters for Flourishes, Accents, Rests, Spring Mode, and Settings

Primary Panel

The main rhythm generation interface, where primary parameters for Pattern and Spring Mode are housed

Select View

Toggles between the Ornaments panel and Settings Panel

Mode Switch

Toggles between Pattern & Spring Mode

Select Page

Select which Page (Flourishes, Accents & Rests, Spring) is displayed on the Side Panel

Pattern Switch

Switches between Pattern A and B. The currently edited Pattern is displayed on the Outer Wheel.

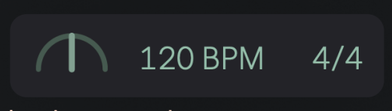
Input Indicators

Visualises input activity from Kick and Snares

Interface Size

Set the interface size, from XS to XL.

Timing Indicators



Visualises current Tempo and Time Signature. Includes a cute little metronome as well

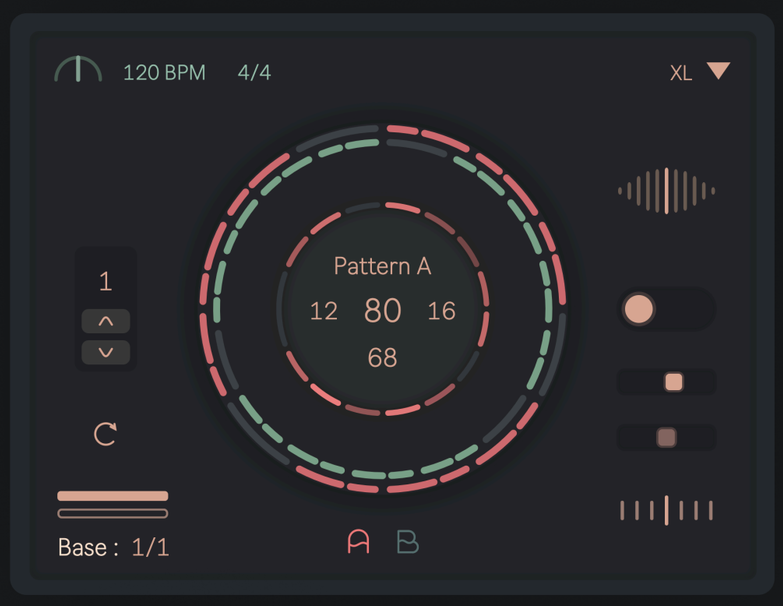
Snapshot

Store and recall up to 16 rhythmic palettes per instance of Irys

All changes are automatically saved to the current **Snapshot** unless they were initiated by automation or modulation. This prevents flooding the current Snapshot with rapid changes.

Pattern Mode

Generates rhythmic phrases using an equation capable of producing natural, human-like rhythms with realistic velocity dynamics in any time signature.



Number of Segments 12

Determines the number of Segments, effectively setting the length of each Pattern. Crerate periodically overlapping patterns by assigning each Pattern a contrasting number of Segments

Segment Ring (Fill) 80

Broader rhythmic structures are formed by arranging Segments containing Phrases around the outer Segment Ring.

Segments are distributed using a custom Euclidean-Binary equation.

Subdivision 16

Determines rhythmic resolution by calculating how many possible pulses a Segment will contain, relative to the current Time Signature.

For example: A Subdivision of 16 will yield 16 total pulses in 4/4, 20 in 5/4, 28 in 7/4, 14 in 7/8, and so on.

Pattern Ring (Density) 68

Distributes pulses in order of rhythmic significance. More significant pulses are automatically assigned higher velocities and visualised using a more vivid colour.

Asymmetry

By default, pulses are arranged in even, symmetrical groups.
Asymmetry introduces syncopation by regrouping pulses into various combinations of 2s and 3s

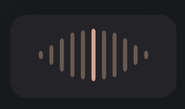
Tip : Moderate Density values between 40 to 70% tend to result in the most expressive syncopations

Offset

Creates space within a Phrase by shifting its start or end point.

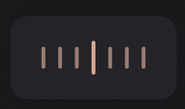
This can be useful for creating rhythmic interplay or reducing overlap

Pattern Mode



Velocity Range

Controls expressiveness by adjusting the range between the softest and loudest Pulses. The default value of 0 results in full dynamic range. Positive values scale this range to the upper half. Negative values scale this range to the lower half.



Swing

Introduces a dynamically fluctuating Swing or Shuffle feel that changes on every beat. This subtle fluctuation results in slightly more natural sounding grooves compared to a static Swing value.

Base Duration

Changes the Base Duration of Pattern A/B while preserving the existing Pulses in each Phrase. This makes it possible to play a Phrase of 1/16 notes at 1/8 triplet speed, or create interesting polyrhythms when both Patterns are set to different Base Durations.

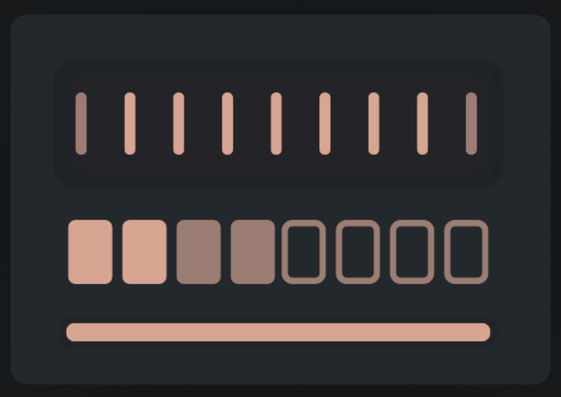
Resync

Resynchronises both Patterns at the start of the next bar.

Flourishes

Flourishes are constructed by playing Clusters of Pulses in response to Kick & Snare MIDI notes or Pattern Pulses. Rhythmic complexity is achieved by chaining together varying numbers of Pulses at different Subdivisions.

A probability Weighting mechanism allows you to calibrate how often each Cluster is chosen for playback, resulting in much more musical results than pure Random.



Inspired by mechanical music instruments and kinetic sculptures, Irys periodically introduces embellishments and punctuation in response to rhythmic events using a counter system controlled by **Interval** and **Cascade**.

Interval

Determines how many consecutive Clusters are played in a single chain of Flourishes.

Cascade

Determines how many consecutive Clusters are played in a single chain of Flourishes.

Timeout Bar

Displays the amount of time left until new chains of Flourishes can be played again.

Weight

Determines how likely the selected Cluster will be played.

16 × Pulses

Number of Pulses the current Cluster will contain.

1/32 Subdivision

Subdivision in use for the current Cluster.

Curve

Introduces acceleration or deceleration.

Flourishes

These additional controls are provided to help Flourishes sound even more musical, and to make interactions feel even more intuitive and frictionless.

Randomise / Reset Clusters

Generates new random combinations of Pulses, Subdiv, and Curve for all Clusters up to the **Selected Cluster**.

If the **Selected Cluster** is set to 0, this button basically resets all Cluster settings to the default values

Phrasing Assistance

Subtly alters the phrasing of Flourishes by cascading Clusters immediately after each other instead of awaiting activation by incoming events.

If triplet or dotted note clusters are played on a finer position like 1/16, they are quantised to the nearest regular subdivision. This can, in some cases, improve rhythmic coherence.

Flourish Gates

Silences Pattern A or B when a chain of Flourishes is active. This can alleviate rhythmic congestion when Clusters and Patterns have Subdivisions like triplets and dotted notes.

Selected Cluster

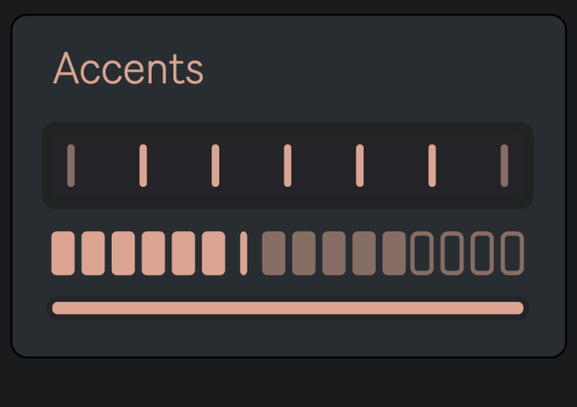
Selects which Cluster's parameters to expose—**Pulses**, **Subdiv**, and **Curve** will reflect the values of the currently selected Cluster.

Cluster Weight

Adjusts the **Weight** of the selected Cluster.

MIDI map **Select Cluster** and **Cluster Weight** to control all 8 sliders using just 2 MIDI controls

Accents & Rests



The same mechanism that was used to introduce Flourishes is adapted to introduce rhythmic punctuation. Overall, they function more or less the same but have a few subtle differentes described below

Interval

Determines how often chains of Accents are activated.

Instead of simply accenting random pulses, the **Accents** Module regulates the phrasing of Accent chains by ensuring that the first Accents are triggered by a Kick.

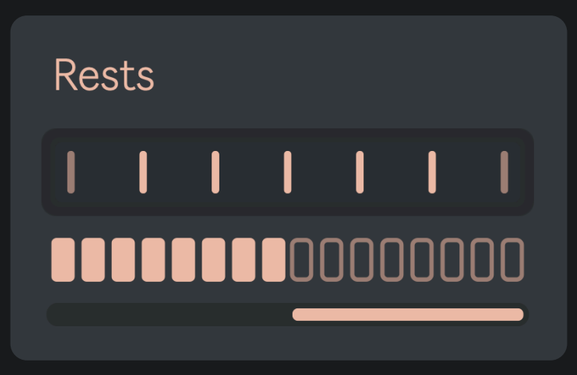
Subsequent Accents within the chain may be activated by Pulses from Pattern A or B or internal events such as when Rests or Flourishes start/end.

Cascade

Determines how many consecutive Accents are played within a single chain.

Lower Cascade values produce more spacious windows of emphasis.
Accents occur mostly on 1/2 or 1/4 positions.

Higher Cascade values result in more expressive and oblique syncopations.
Accents occur on finer subdivisions (1/8 to 1/16 positions)



Rhythmic activity is paused whenever Kicks are played, and resumed when the next Kick arrives after the Rest Duration.
A simple but effective conductor of musical traffic.

Interval

Determines how many consecutive Clusters are played in a single chain of Flourishes.

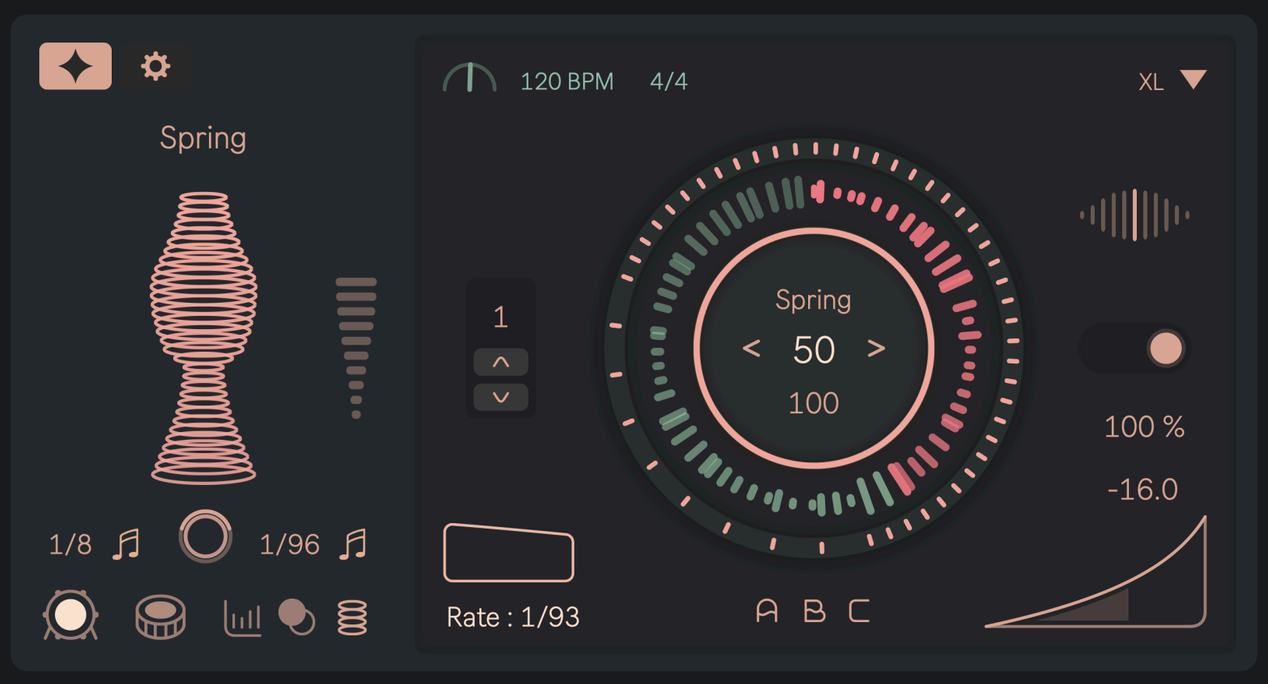
Duration

Sets the minimum Duration of Rests, before allowing rhythmic activity to resume with the next Kick with a high velocity value.

Spring Mode

In Spring Mode, rhythms are shaped by applying various styles of movement to Pulse Speed. Speed changes are initiated in response to Kicks and Snares

This makes it possible to create elastic, time-bending rhythms that transcend the grid yet remain anchored to the underlying rhythmic context.



Density

Pulses between any two rhythmic events are grouped to form a Cluster.
Density influences overall phrasing by deciding how many such Clusters should play.

Soar / Dive

Manually initiate Speed Ramps.

Pulse Speed

Manually controls Pulse Speed. Ramps will be inactive as long as Pulse Speed is being manually adjusted.

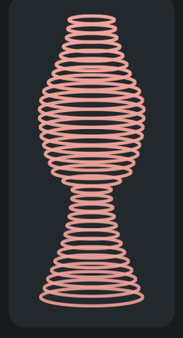
Minimum and Maximum speeds are determined by Floor and Ceiling Rate.
After a brief window of inactivity (defined by Handover Duration), Internal Movement takes the wheel again.

Note : Waver, Ripple, Curvature and Ramp Duration have no effect on manual control over Speed. They only influence Internal Movement.

Spring Mode

Waver

Create "drunk rhythms" by introducing random, wandering movement to Pulse Speed



The animated Spring visualises both Velocity values and the amount of Wavering or Rippling introduced to Pulse Speed

Ripple

Create agile, rhythmic inflections that bounce between contrasting speeds at synchronised intervals

Floor / Ceiling

1/8 1/96

Determines the Minimum/Maximum possible speed to which Pulses can accelerate or decelerate.

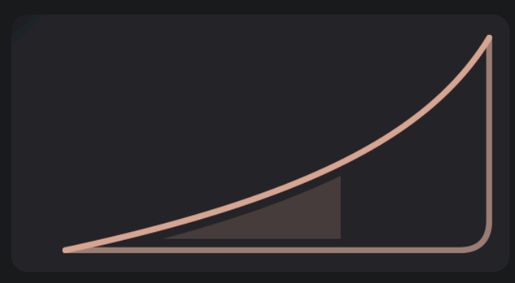
When Speed Ramps are activated, a random pair of Floor and Ceiling rates within this range is selected.

Output Cycling

A B C

Pulse Clusters are cycled between enabled outputs to form rhythmic tesselations.

Speed Ramp Controls



The Curve displays the progress of Speed Ramps and controls the two parameters beside : **Duration** and **Curvature**

Duration

Determines the average time taken for Speed Ramps will take to travel between **Floor** and **Ceiling**.

Shorter durations create tighter speed transitions while longer durations create more tension and elasticity.

Curvature

Bends the shape of Speed Ramps and **Ripple** contours.
Negative values produce a gentler slope followed by a pronounced sweep.
Positive values produce a pronounced swell followed by a gentle settling into place.

Settings

Mute Outputs

The outer border around the button also doubles as an output activity indicator.

Input / Output Notes

Set which notes Outputs A, B, C, and D are routed to. These settings are saved with each Snapshot, allowing you to route pulses to a different sound with each Snapshot.

Although Irys was designed to respond to external Kick and Snare MIDI notes, it is perfectly capable of playing Kick and Snare roles as well.

Simply set Outputs A and B to the same notes that both Inputs expect to receive as Kicks and Snares.

Less Animations

Disables the following non-essential UI animations for better performance :

- Playhead Animations
- Metronome
- Input and Output Indicators

If the interface starts to feel slow, closing the main interface can help, especially during performances.

This may occur when using several Max for Live Devices with Javascript UI animations.

Scroll to Page

When remotely adjusting a parameter on a page that isn't currently in view, Irys will automatically scroll to that page.

However, if severla parameters across different pages are being modulated or automated, it is best to leave this setting off to prevent excessive UI scrolling.

Handover Duration

1/1 Bar

When any of the 4 notes that are assigned to Outputs A, B, C, D are manually played, internally generated notes are momentarily paused to make way for your playing.

Handover Duration determines how much time should pass before internal note generation resumes.

Acknowledgements

Finally, my deepest gratitude to these incredible humans

whose technical guidance, ideas, feedback, care, love and

patience helped Irys and I through a gruelling first winter and

finally out into the inviting arms of summer

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Gracia Fei

And last but not least, to you, fellow Artist, for supporting this project and exploring Irys in your music. I'm excited to hear what you'll create with Irys. If you create something cool or have any ideas for how Irys could be improved, feel free to reach out on Instagram @glymma.io or email glymma@protonmail.com

IRYS

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GLYMMA

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