

Jenner Logo Ideation Tool

A browser-based design tool for exploring, editing, and exporting variations of the Jenner “J” logo — a 3x3 dot grid that animates through build-up and rotation sequences.

Installation

Prerequisites

- A modern web browser (Chrome, Firefox, Safari, or Edge)
- No server, build tools, or dependencies required — the tool runs entirely client-side

Setup

1. Clone the repository:

```
git clone https://github.com/JennerAnalytics/jal-logo.git  
cd jal-logo
```

2. Open `prototype.html` in your browser:

```
# macOS  
open prototype.html  
  
# Linux  
xdg-open prototype.html  
  
# Windows  
start prototype.html
```

Or drag the file into any browser window.

That's it — no `npm install`, no build step.

Quick Start

When the page loads you see a grid of animated logo cards. Each card is a unique combination of **variant**, **dot shape**, **color scheme**, and **sizing mode**.

1. **Browse** the grid to see all combinations animate
 2. **Click** a card to pause/resume its animation
 3. **Double-click** a card to open the editor
 4. **Export** a complete asset pack from the editor
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User Guide

Grid View

The main screen displays all logo variations as animated cards.

Filters Use the filter bar at the top to narrow down the grid:

Filter	Options	Description
J Variant	hook-6, stair-6, L-5, right-5, heavy-7, loop-8, full-9	The J-letterform shape
Dot Shape	circle, squircle	Round dots or rounded squares
Color Scheme	dark/light, light/dark, dark/amber	Background and dot colors
Sizing	uniform, wave, corner, trail	How dot sizes vary across the grid

Click a filter button to toggle it on/off. Active filters are highlighted. The filter summary at the bottom shows the current selection — click it to copy.

Speed & Display Controls

- **Speed** slider: Adjust animation speed (0.1× to 3×)
- **Smooth** toggle: Enable/disable smoothstep interpolation between rotation frames
- **Favicon size** toggle: Preview cards at 32×32px to check small-size legibility

Special Variation Sections Below the standard grid, three sections show curated variations:

- **Smooth Trail** — full-9 with 8-step interpolated trail weights for fluid rotation
- **Center-Pulse** — full-9 with a breathing center dot that pulses with the rotation cycle
- **AA Variations** — heavy-7 with anti-aliased J via fine-tuned dot sizing

These have stable IDs (ST1, CP1, AA1, etc.) that don't change when cards are added.

Editor View

Double-click any card to open the full editor.

Preview Panel (left)

- Large 300×300 animated preview
- **Play / Pause / Step** controls for frame-by-frame inspection
- **Speed** slider independent of the grid speed

Controls Panel (right)

Playback Mode

- **Skip build-up:** Toggle to skip the 5-frame build-up sequence and loop only the rotation frames

Weight Matrix (3x3 dot sizes) Each cell controls the relative size of the dot at that grid position. Values range from 0.10 to 2.00.

- **Period selector (1–8):** Switch between the 8 rotation periods to edit weights independently per frame
- The currently animating period is highlighted with a green border
- Editing a weight immediately updates the preview

Dot Shape Toggle between **Circle** and **Squircle** (rounded square with $r = 0.35 \times \text{dotRadius}$).

Color Scheme

- **Presets:** Click dark/light, light/dark, or dark/amber for quick changes
- **Custom:** Use the color pickers or type hex values for background and dot colors

Base Dot Size Ratio Slider from 0.20 to 0.95 — controls the ratio of dot diameter to cell size (default: 0.60).

Animation Timing

- **Build 1–5:** Duration of each build-up frame (40–500ms)
- **Rotation:** Duration of each rotation frame (40–500ms, applies to all 8 periods)

Exported Config A read-only text field showing the current configuration in JENNER_EDIT: format. Click **Copy config** in the header to copy it to your clipboard. This format can be pasted back into the source code to recreate the variation.

Config format example:

```
JENNER_EDIT:  
variant=full-9 shape=circle bg=#1c1c1e dot=#e8a435 baseSize=0.60  
skipBuild=true rotMs=140  
P1=[[0.40,0.30,1.30],[0.55,0.20,1.15],[0.70,0.85,1.00]]  
P2=[[0.55,0.43,0.85],[0.70,0.33,0.73],[0.85,1.00,1.15]]  
...
```

Exporting Assets

From the editor view:

1. Choose a **Frame** to export:
 - **Canonical (J visible)** — the first rotation frame (0° orientation)

- **Current frame** — whatever frame is currently displayed
2. Click **Download Asset Pack (.zip)**
 3. A progress bar shows rendering status. When complete, a ZIP file downloads automatically.

ZIP Contents The export produces a ZIP with this structure:

```
jenner-logo-export/
├── original/          # Your configured colors
│   ├── favicon/       # 16, 32, 48, 64, 96, 128, 256px
│   ├── web/           # apple-touch-icon-180, pwa-192, pwa-512, og-1200
│   ├── macos/          # 16-1024px
│   ├── windows/         # 16-256px
│   ├── linux/           # 16-512px
│   └── marketing/      # 1024, 2048, 4096px
├── transparent/        # Same sizes, no background
├── on-white/           # White bg, auto-adjusted dot color
├── on-black/            # Black bg, auto-adjusted dot color
├── mono-on-white/      # White bg, dark dots (#1c1c1e)
└── mono-on-black/      # Black bg, light dots (#f0efe8)
svg/
    ├── logo-original.svg
    ├── logo-transparent.svg
    ├── logo-on-white.svg
    ├── logo-on-black.svg
    ├── logo-mono-on-white.svg
    └── logo-mono-on-black.svg
```

6 background variations × 6 platform size sets + 6 SVGs — everything needed for web, desktop, mobile, and marketing use.

Validation Tests

Open `test-export.html` in your browser to run automated validation:

1. Open the file
2. Click **Run All Tests**
3. Tests verify:
 - PNG canvas dimensions and blob validity
 - Background color correctness (transparent, white, black, original, mono)
 - SVG DOM structure (element counts, fill attributes, viewBox)
 - ZIP file completeness (all expected paths present)
 - Rotation math ($R^4=I$, dot count preservation, formula correctness, smoothstep)

All tests should pass with green checkmarks. Click a category header to expand details.

Mathematical Specification

See `jenner-logo-spec.md` for the formal mathematical specification covering:

- Grid coordinate system
 - 90° CW rotation operator and C_4 group proof
 - All 7 variant canonical matrices
 - Frame sequence (build-up + rotation loop)
 - Weight matrices and per-period overrides
 - Center profile breathing effect
 - Smoothstep interpolation formula
 - Dot geometry (circle, squircle, tile radius)
 - Export variation rules with luminance fallback
-

File Reference

File	Purpose
<code>prototype.html</code>	Main ideation tool — grid explorer, editor, and export
<code>test-export.html</code>	Automated export validation tests (38 tests)
<code>jenner-logo-spec.md</code>	Mathematical specification with LaTeX notation
<code>README.md</code>	This documentation

Browser Compatibility

Tested in: - Chrome 120+ - Firefox 120+ - Safari 17+ - Edge 120+

Requires `canvas.roundRect()` support (available in all modern browsers since 2023). No polyfills needed.

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