Infinite Canvas

Design System & Style Guide

A comprehensive design reference for rebuilding the canvas application based on Excalidraw design patterns, optimized for dark mode with a custom blue-centric color palette.

Version 1.0 — November 28, 2025

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1.0 Introduction

1.1 Purpose & Scope

This style guide serves as the authoritative reference for the Infinite Canvas application redesign. It documents the visual language, component specifications, and interaction patterns derived from Excalidraw's proven design system, adapted with a custom dark mode color palette featuring deep navy and electric blue tones.

The guide is intended for designers implementing UI mockups and developers building React components. It ensures consistency across all touchpoints and provides clear specifications for theming, spacing, and component behavior.
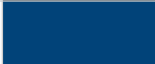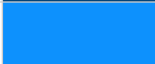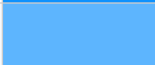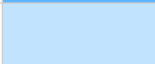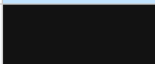
1.2 Design Principles

• **Hand-Drawn Aesthetic** — Embrace the sketchy, organic feel that makes canvas tools approachable. Use rounded corners, subtle animations, and the Excalifont typeface to maintain the hand-crafted character.

• **Minimal UI Footprint** — The canvas is the hero. Keep toolbars compact and unobtrusive, using 'island' floating panels that don't compete with the drawing surface.

• **Dark Mode First** — Designed primarily for dark environments to reduce eye strain during extended use. The deep navy palette provides comfort while maintaining high contrast for UI elements.

• **Instant Feedback** — Every interaction should feel responsive. Use micro-animations, hover states, and cursor changes to communicate tool availability and selection state.

• **Accessibility Without Compromise** — Maintain WCAG 2.1 AA compliance. All color combinations meet minimum contrast ratios, and keyboard navigation is fully supported.

2.0 Visual Identity

2.1 Color Palette

The color system uses a monochromatic blue palette ranging from near-black navy to pale ice blue. This creates visual depth through subtle layering while maintaining a cohesive brand presence. The Electric Blue (#0D91FD) serves as the primary accent for interactive elements and focus states.

Role	Color Name	HEX	RGB	Swatch
Primary Background	Midnight Navy	#021A2E	2, 26, 46	
Secondary Background	Deep Navy	#014379	1, 67, 121	
Primary Accent	Electric Blue	#0D91FD	13, 145, 253	
Hover/Highlight	Sky Blue	#5DB5FE	93, 181, 254	
Text Primary	Ice Blue	#C2E3FE	194, 227, 254	
Canvas Background	True Black	#121212	18, 18, 18	
Success	Emerald	#10B981	16, 185, 129	
Warning	Amber	#F59E0B	245, 158, 11	
Error	Rose	#EF4444	239, 68, 68	

Color Application Rules:

• Use Midnight Navy (#021A2E) as the primary application background
• Deep Navy (#014379) for elevated surfaces like toolbar 'islands' and panels
• Electric Blue (#0D91FD) exclusively for primary actions and focus indicators
• Sky Blue (#5DB5FE) for hover states and secondary highlights
• Ice Blue (#C2E3FE) for primary text content
• Canvas drawing area should use True Black (#121212) for maximum contrast with drawings

2.2 Typography

Typography follows a dual-font strategy: Inter for UI elements (clean, professional, highly legible) and Excalifont for on-canvas text (hand-drawn character, authentic sketch feel). Code elements use JetBrains Mono for excellent character differentiation.

Element	Font Family	Weight	Size	Line Height	Usage
Display	Inter / Excalifont	Bold (700)	48px	1.1	Hero sections
H1	Inter / Excalifont	Bold (700)	32px	1.2	Page titles
H2	Inter / Excalifont	SemiBold (600)	24px	1.3	Section headers
H3	Inter / Excalifont	SemiBold (600)	18px	1.4	Subsections
Body Large	Inter	Regular (400)	16px	1.5	Primary content
Body	Inter	Regular (400)	14px	1.5	General text
Small/Caption	Inter	Regular (400)	12px	1.4	Labels, hints
Code	JetBrains Mono	Regular (400)	13px	1.5	Code blocks
Canvas Text	Excalifont/Virgil	Regular	20px	1.4	On-canvas text

Font Loading Strategy:

Inter is loaded via Google Fonts with display=swap for FOUT optimization. Excalifont (or Virgil fallback) is self-hosted and loaded asynchronously. System fallback stack: -apple-system, BlinkMacSystemFont, 'Segoe UI', sans-serif.

2.3 Iconography

Icons follow the Excalidraw design language: 24×24px base size, 2px stroke weight, rounded line caps and joins. Icons should feel slightly imperfect, aligning with the hand-drawn aesthetic. Use Lucide React as the primary icon library, with custom SVGs for tool-specific icons.

• **Base Size:** 24×24px

• **Stroke Width:** 2px

• **Corner Radius:** 2px (for contained shapes)

• **Line Caps:** Round

• **Line Joins:** Round

• **Active State:** Filled with --color-primary

• **Inactive State:** Stroke only with --color-text-primary

3.0 UI Components

3.1 Toolbar & Tool Selection

The primary toolbar uses the 'floating island' pattern—a rounded, pill-shaped container that hovers above the canvas. This provides tool access while minimizing visual obstruction. Tools are arranged horizontally with icon buttons, showing keyboard shortcut hints on hover.

• **Container Background:** --island-bg-color (#014379)

• **Border Radius:** 12px

• **Shadow:** 0 1px 5px rgba(0,0,0,0.4)

• **Padding:** 8px 12px

• **Tool Button Size:** 32×32px

• **Button Spacing:** 4px gap

• **Active Tool Indicator:** Filled background with --color-primary

• **Keyboard Hint:** Small badge below icon (12px, muted text)

3.2 Buttons

Buttons follow a three-tier hierarchy: Primary (filled), Secondary (outlined), and Tertiary (ghost). All buttons have smooth 150ms transitions on hover/active states. Icon-only buttons are used in toolbars while text buttons appear in dialogs and forms.

State	Background	Text Color	Border	Shadow
Primary Default	#0D91FD	#FFFFFF	none	0 2px 4px rgba(0,0,0,0.2)
Primary Hover	#5DB5FE	#FFFFFF	none	0 4px 8px rgba(0,0,0,0.25)
Primary Active	#014379	#C2E3FE	none	0 1px 2px rgba(0,0,0,0.2)
Primary Disabled	#014379 50%	#5DB5FE 50%	none	none
Secondary Default	transparent	#0D91FD	1px solid #0D91FD	none
Secondary Hover	rgba(13,145,253,0.1)	#5DB5FE	1px solid #5DB5FE	none
Tertiary/Ghost	transparent	#C2E3FE	none	none
Icon Button	#014379	#C2E3FE	none	none

• **Height (Default):** 40px

• **Height (Small):** 32px

• **Padding:** 12px 24px (text), 8px (icon-only)

- **Border Radius:** 8px

- **Font Size:** 14px

- **Font Weight:** 600 (SemiBold)

- **Transition:** all 150ms ease-out

- **Focus Ring:** 2px solid --color-primary, 2px offset

3.3 Form Elements

Form inputs use a minimal style with bottom borders in default state, full borders on focus. Labels are positioned above inputs with a small gap. Error states use the Rose color (#EF4444) for borders and helper text.

• **Input Height:** 40px

• **Border (Default):** 1px solid --color-border (transparent or subtle)

• **Border (Focus):** 2px solid --color-primary

• **Background:** --color-surface-mid

• **Text Color:** --color-text-primary

• **Placeholder Color:** --color-text-secondary at 60% opacity

• **Border Radius:** 6px

• **Padding:** 8px 12px

• **Label Font Size:** 12px

• **Label Color:** --color-text-secondary

• **Error Border:** 2px solid #EF4444

• **Error Text:** #EF4444, 12px, below input

3.4 Panels & Cards

Panels (sidebars, property panels) and cards share similar styling—elevated surfaces with subtle backgrounds and rounded corners. Panels slide in from the edge while cards are contained within the layout.

• **Background:** --color-surface-mid (#014379)

• **Border Radius:** 12px (floating), 0 (docked)

• **Shadow:** 0 4px 12px rgba(0,0,0,0.3)

• **Padding:** 16px

• **Header Border:** 1px solid --color-border at bottom

• **Max Width (Sidebar):** 280px

3.5 Color Pickers

Color pickers use a swatch-based approach for quick selection, with an advanced picker available for custom colors. Swatches are arranged in a grid with preset colors optimized for the canvas background.

• **Swatch Size:** 24×24px

• **Swatch Border Radius:** 4px

• **Swatch Grid Gap:** 8px

- **Selected Indicator:** 2px ring with --color-primary

- **Transparent Swatch:** Checkerboard pattern

- **Custom Color Input:** HEX input field with validation

4.0 Layout & Spacing

4.1 Grid System

The application uses a flexible layout with a fixed toolbar region and fluid canvas area. Sidebars are dockable based on viewport width. The grid system uses an 8px base unit for consistent alignment.

• **Base Unit:** 8px

• **Canvas Area:** 100vw × 100vh (minus toolbars)

• **Toolbar Height:** 56px

• **Sidebar Width:** 280px (docked), 320px (floating)

• **Sidebar Dock Breakpoint:** 768px minimum container width

• **Gutter:** 16px between major regions

4.2 Spacing Scale

All spacing uses tokens derived from an 8px base grid. This ensures visual consistency and simplifies responsive adjustments.

Token	Value	Pixels	Usage
space-0	0	0px	Reset spacing
space-1	0.25rem	4px	Tight spacing between related elements
space-2	0.5rem	8px	Default small spacing
space-3	0.75rem	12px	Medium-small spacing
space-4	1rem	16px	Standard component spacing
space-5	1.5rem	24px	Section spacing
space-6	2rem	32px	Large section gaps
space-8	3rem	48px	Major section breaks
space-10	4rem	64px	Page-level spacing

4.3 Responsive Breakpoints

Breakpoint	Width Range	Layout Behavior
Mobile	< 640px	Single column, bottom toolbar, fullscreen panels
Tablet	640px - 1024px	Compact toolbar, floating sidebar

Desktop	1024px - 1440px	Full toolbar, dockable sidebar
Large Desktop	> 1440px	Expanded sidebar, additional tool groups

5.0 Canvas Interactions

5.1 Drawing Tools

Drawing tools are accessed via the main toolbar. Each tool has a distinct cursor and provides real-time visual feedback during drawing. The hand-drawn rendering style uses a slight wobble algorithm for organic line appearance.

• **Selection (V):** Default cursor, bounding box on hover

• **Pen/Draw (P):** Crosshair cursor, freeform path creation

• **Line (L):** Crosshair cursor, click-drag for straight lines

• **Rectangle (R):** Crosshair cursor, click-drag from corner

• **Circle/Ellipse (O):** Crosshair cursor, click-drag from center

• **Triangle (T):** Crosshair cursor, click-drag from corner

• **Text (T):** I-beam cursor, click to place text box

• **Image (I):** Opens file picker, places on canvas

5.2 Selection & Transform

• **Selection Box:** Dashed border, --color-primary

• **Resize Handles:** 8×8px squares at corners and midpoints

• **Rotation Handle:** Circle above top-center, connected by line

• **Multi-Select:** Click-drag area selection, Shift+click to add

• **Move Cursor:** Four-way arrow when hovering selected element

• **Resize Cursor:** Diagonal double-arrow at corners

5.3 Keyboard Shortcuts

Key	Action
V	Select tool
P	Pen/Draw tool
L	Line tool
R	Rectangle tool
O	Circle/Ellipse tool
T	Text tool

Cmd/Ctrl + Z	Undo
Cmd/Ctrl + Shift + z	Redo
Cmd/Ctrl + C	Copy
Cmd/Ctrl + V	Paste
Delete/Backspace	Delete selected
Cmd/Ctrl + A	Select all
Cmd/Ctrl + D	Duplicate
Escape	Deselect / Cancel

6.0 Implementation

6.1 CSS Variables Reference

The theming system uses CSS custom properties for easy customization and dark mode support. Override these variables in your root selector to apply the custom color scheme.

Variable	Dark Mode Value	Description
`--color-primary`	#0D91FD	Primary brand/accent color
`--color-primary-darker`	#014379	Darker variant for active states
`--color-primary-light`	#5DB5FE	Lighter variant for hover states
`--color-surface-low`	#021A2E	Base background (lowest elevation)
`--color-surface-mid`	#014379	Elevated surface (panels, cards)
`--color-surface-high`	#0D91FD20	Highest elevation (modals, tooltips)
`--color-text-primary`	#C2E3FE	Primary text color
`--color-text-secondary`	#5DB5FE	Secondary/muted text
`--color-border`	#0D91FD40	Default border color
`--color-border-focus`	#0D91FD	Focus ring border
`--island-bg-color`	#014379	Toolbar/island background
`--canvas-bg-color`	#121212	Canvas drawing area background
`--shadow-island`	0 1px 5px rgba(0,0,0,0.4)	Floating toolbar shadow
`--border-radius-md`	8px	Medium border radius
`--border-radius-lg`	12px	Large border radius

6.2 Theme Configuration

Apply the dark theme by adding the .theme--dark class to the root .excalidraw container. The following CSS applies the custom color palette:

```
.canvas-app.theme--dark {
  --color-primary: #0D91FD;
  --color-primary-darker: #014379;
  --color-primary-light: #5DB5FE;
  --color-surface-low: #021A2E;
  --color-surface-mid: #014379;
  --color-text-primary: #C2E3FE;
  --color-text-secondary: #5DB5FE;
  --island-bg-color: #014379;
  --canvas-bg-color: #121212;
}
```

7.0 Accessibility

The design system targets WCAG 2.1 AA compliance. All interactive elements support keyboard navigation, and color combinations meet minimum contrast requirements.

• **Contrast Ratio (Normal Text):** Minimum 4.5:1 — Ice Blue on Midnight Navy passes (12.4:1)

• **Contrast Ratio (Large Text):** Minimum 3:1 — All palette combinations pass

• **Contrast Ratio (UI Components):** Minimum 3:1 — Electric Blue on Navy passes (5.2:1)

• **Focus Indicators:** 2px solid ring with 2px offset, visible in all states

• **Keyboard Navigation:** Full Tab navigation with logical order

• **Screen Reader:** ARIA labels on all interactive elements, live regions for updates

• **Reduced Motion:** Respects prefers-reduced-motion, disables animations

• **Touch Targets:** Minimum 44×44px for all interactive elements

Color Contrast Validation:

Foreground	Background	Ratio	AA Normal	AA Large
#C2E3FE	#021A2E	12.4:1	✓ Pass	✓ Pass
#5DB5FE	#021A2E	7.8:1	✓ Pass	✓ Pass
#0D91FD	#021A2E	5.2:1	✓ Pass	✓ Pass
#FFFFFF	#0D91FD	3.8:1	✗ Fail*	✓ Pass
#C2E3FE	#014379	6.1:1	✓ Pass	✓ Pass

*White on Electric Blue fails AA for normal text but passes for large text and UI components.

8.0 Resources & Changelog

Design Resources:

• **Excalidraw Documentation:** docs.excalidraw.com

• **Excalifont (Hand-drawn font):** plus.excalidraw.com/excalifont

• **Inter Font:** rsms.me/inter

• **Lucide Icons:** lucide.dev

• **JetBrains Mono:** jetbrains.com/mono

Development References:

• **Excalidraw GitHub:** github.com/excalidraw/excalidraw

• **Theme SCSS Source:** github.com/excalidraw/excalidraw/blob/master/packages/excalidraw/css/theme.scss

• **Fabric.js (Canvas Library):** fabricjs.com

• **Tailwind CSS:** tailwindcss.com

Changelog:

Version 1.0 — November 28, 2025
• Initial release of the Infinite Canvas design system
• Dark mode color palette with custom blue tones
• Complete component specifications based on Excalidraw patterns
• Typography system with Inter + Excalifont
• Full accessibility guidelines and contrast validation
• CSS variables reference for theming