

He Maumahara Design System

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This document describes the implemented frontend design system for the current He Maumahara web build. It includes design goals, global tokens, layout rules, component patterns, and key accessibility constraints.

1. Design Goals

- 1. Accessibility-first: high contrast, large touch targets, readable typography.
- 2. Low cognitive load: minimal choices while playing; consistent placements for controls.
- 3. Predictable layout: fixed minimum width and stable spacing.
- 4. Clear state cues: the user should immediately understand hidden/shown/matched states.

2. Global Tokens

2.1 Typography

- Font family: Roboto (fallback: sans-serif)
- Primary sizes:
 - 18px: body and dense UI
 - 24px: menu/HUD buttons and labels
 - 96px: titles and timer emphasis

2.2 Color

- Background: #000000
- Text: #ffffff
- Hover highlight: rgba(0, 147, 255, 0.4)
- Adaptive toggle:
 - ON: #4CAF50
 - OFF: #808080

2.3 Layout and Spacing

- Global minimum width: 800px
- Standard gaps:
 - 30px: menus and button stacks
 - 20px: card grid spacing
- Grid padding: 20px (game board)
- Edge margin: 20px (top/left/right anchors for fixed UI elements)

3. Typography and Color Reference (Implementation Table)

Element	Selector	Size	Weight	Color	Notes
Main title	#title, #title-play	96px	100	#fff	Center aligned
Sub headings	h3	96px	100	#fff	Large, minimal lines
Menu buttons	.menu-btn	24px	300	#fff	Semi-transparent backgrounds
Level buttons	.lvl-txt	24px	300	#fff	Same sizing as menus
Body text	body	18px	400	#fff	Black background
Game timer	#game-timer	96px	100	#fff	Prominent and stable position
HUD labels	.menu-txt	24px / 18px	300	#fff	Smaller in-game

4. Page Layout Patterns

4.1 Home (index.html)

- Layout: centered vertical stack
- Interaction: straightforward navigation; no nested menus
- Buttons: consistent width and spacing to reduce scanning effort

4.2 Level Select (play.html)

- Layout: 3-column grid of level buttons
- Descriptions: hover/focus descriptions provide optional detail without cluttering the default view

4.3 Gameplay Pages (lvl-1.html / lvl-2.html / lvl-3.html)

Shared UI elements:

- Primary navigation: Menu
- Utility controls: Show, Export, Adapt, Reset
- Primary focus: timer and board
- Secondary feedback: a label field that displays the current card's kupu/label

Game over view:

- Left side retains familiar layout anchors
- Summary panel presents end-of-round feedback and next action choices

4.4 Analytics Page (analytics.html)

- Offers two modes:
 - History (real local sessions)
 - Demo (mock data for visual demonstration)
- Includes a compact overall review card (K-Means) and per-session summaries.

5. Component Patterns and States

5.1 Card Component

Card states:

- hidden: face down / neutral
- shown: temporary reveal state
- flipped: user-selected during matching
- matched: permanently resolved

Interaction rules:

- Prevent extra flips while resolving a pair (board lock).
- Preview phase blocks input until the initial reveal ends.
- Ripple hint temporarily blocks input to avoid inconsistent states.

5.2 Buttons and Controls

Common controls should remain in consistent positions across levels.

- Show: trades time for information (hint/cheat metric)
- Export: user-owned data export (JSON)
- Adapt: explicit control over personalization (ON/OFF)
- Reset: clears local telemetry for a clean run

6. Accessibility Constraints (Operational)

- Contrast: white text on black background for maximum legibility.
- Target sizing: large cards and large button hit areas.
- Motion: animations are limited and short; avoid persistent motion that distracts during play.
- Focus clarity: hover/focus behavior should not hide essential information.