**SoundScape: Prototyping & UI Design**

**1. Design System**

**Typography**

* **Primary Font:** *SF Pro Rounded* (iOS-friendly, soft edges for emotional appeal).
* **Hierarchy:**
  + Headings: **600 weight, 20–24pt** (clear mood/memory labels).
  + Body: **400 weight, 16pt** (readable lyrics/descriptions).
* **Rationale:** Rounded typefaces feel warmer—critical for an emotion-driven app.

**Colors**

| **Role** | **Color** | **Use Case** |
| --- | --- | --- |
| Primary | Deep Purple (#7B4BFF) | Buttons, key actions. |
| Emotional States | Calm: Teal (#00C4CC) • Energy: Coral (#FF6B6B) | Mood sliders/UI accents. |
| Background | Dark Gray (#121212) | Reduces eye strain, makes colors pop. |
| **Why?** Purple evokes nostalgia; teal/coral map to mood extremes. |  |  |

**UI Components**

* **Memory Cards:** Soft shadows + photo thumbnails (trigger nostalgia).
* **Mood Sliders:** Gradient tracks (teal → coral) with tactile drag handles.
* **Generative Art Canvas:** Dynamic background reacting to song BPM.

**2. Accessibility Support**

* **Contrast Ratios:** 4.5:1+ (text/buttons on dark mode).
* **Dynamic Text:** Supports iOS/mAndroid scaling up to 200%.
* **VoiceOver:** Labels for generative art (e.g., "Abstract waves, high energy").
* **Colorblind Mode:** Replace teal/coral with patterns (stripes/dots).

**User Tested With:**

* Screen readers (VoiceOver/TalkBack).
* Colorblind simulation tools (Stark Plugin).

**3. Design Influences**

| **Factor** | **Design Choice** |
| --- | --- |
| **Emotional Trust** | Warm purple + rounded shapes (feels personal, not corporate). |
| **Music Industry** | Dark theme (standard for audio apps). |
| **Biometric Data** | Pulse-like animations when stress detected. |
| **Nostalgia** | Polaroid-style photo frames for memory playlists. |

**Competitor Insights:**

* Avoided Spotify’s "cold" neon greens.
* Borrowed Apple Music’s clean layout but added emotional cues.

**4. Animations & Micro-Interactions**

1. **Mood Transition:** Smooth gradient shift when switching from "Calm" to "Energetic."
2. **Memory Unlock:** Photos "develop" like Polaroids when tapped.
3. **Drag-to-Skip:** Haptic feedback + vinyl-record spin animation.
4. **Generative Art Growth:** Visuals expand/shrink with volume changes.

**Why?**

* **Feedback:** Animations confirm actions (e.g., "Your mood preset is saved").
* **Delight:** Nostalgic micro-interactions (Polaroids) deepen emotional connection.

**5. Prototype Realism**

**Key Interactive Flows:**

1. **"Play my wedding playlist"**
   * Tap Memory Lane → Scroll to "Wedding" → Play.
   * *Real behavior:* Users hesitated to type—preferred scrolling timelines.
2. **"I’m stressed—calm me down"**
   * Swipe left on Now Playing → Tap "Chill Mode."
   * *Test result:* Sliders confused some; added a one-tap "Instant Calm" button.

**Tools:**

* **Figma Prototype:** Simulated mood adjustments.
* **Protopie:** Tested biometric integration (e.g., heart rate affecting tempo).

**6. Mobile-First Responsiveness**

* **Thumb Zones:** Key actions (play/pause) placed in bottom 25% of screen.
* **Grid Adaptivity:**
  + Mobile: 1 column (Memory Lane).
  + Tablet: 2 columns (Memories + Now Playing side-by-side).
* **Touch Targets:** 48x48px buttons (Apple HIG compliance).

**Tested On:**

* iPhone SE (small screen) → iPad Pro (large canvas).
* **Issue Fixed:** Generative art lagged on older devices; optimized with simpler SVGs.