PrismEyes: Personalized Ocular Identity

Product Vision & Value Proposition

The Future of Self-Expression: PrismEyes delivers instantaneous ocular transformation, making eye color a fluid, digital element of one's personal style, much like changing an outfit or accessory. It is the ultimate tool for sophisticated, subtle, and temporary aesthetic expression.

Hyper-Realistic Customization: Leveraging advanced micro-display technology, PrismEyes ensures colors are vibrant, high-fidelity, and indistinguishable from natural eye pigment, including dynamic effects, limbal ring definition, and bespoke patterns.

Seamless Digital Integration: The experience is managed via a sleek **AR Companion App**, allowing users to virtually 'try on' thousands of styles, save custom presets, and switch colors with a simple tap, enhancing convenience and delight.

Unique Selling Points: **Instantaneous, high-definition change** (delight-enhancing); **Biocompatible subscription model** (recurring revenue); **Unlocks a new dimension of aesthetic control** (aspirational identity).

Consumer & Market Impact

Persona 1: The Digital Creator (Early Adopter): Needs versatility and visual impact for content production (e.g., makeup artists, streamers, fashion influencers). Pain Point: Traditional lenses limit creative range and often look unnatural in high-definition video.

Persona 2: The Social Professional (Mainstream Consumer): Seeks subtle enhancement and control over personal presentation for high-stakes social events or professional settings. Pain Point: Desire for temporary, non-permanent aesthetic changes without medical procedures.

Persona 3: The Identity Explorer (Non-Obvious/Underserved): Individuals exploring temporary gender expression or personal identity who use aesthetic elements to articulate internal states. Pain Point: Lack of safe, high-quality, non-permanent tools for core identity articulation.

Sector Benefit: The **Media and Entertainment** sector benefits immediately, reducing post-production visual effects costs. The **Personal Care and Aesthetics** market gains a high-value, non-invasive enhancement option.

Testimonial-Style Quotes:

“This is a total game-changer for my photoshoots. It saves me hours of VFX editing.”

“I love that I can match my eye color to my mood or my outfit perfectly. Feels like something from the future.”

“It's not just about color; it’s about having complete control over how I present myself to the world.”

Feasibility Assessment

Technological Readiness Level (TRL): This scale measures the maturity of the core technology from basic research to flight-proven systems (NASA 1–9).

Current TRL: 3 – Experimental Proof of Concept.

Explanation: The fundamental feasibility of dynamically altering light/color output on a flexible, ultra-thin substrate (smart lens display) has been shown in laboratories, but integration of the necessary power source, control circuitry, and high-fidelity micro-pixels into a biocompatible contact lens form factor remains a major challenge.

Next Stage (TRL 4): Validation of core technological components (display material, power transfer, control mechanism) in a laboratory environment, proving that the basic elements can function together in an integrated system.

Business Readiness Level (BRL): This scale measures the commercial maturity of the idea, from initial concept to market dominance (KTH Innovation 1–9).

Current BRL: 2 – Idea Validation.

Explanation: The product concept is clearly defined and validated against high-level market demand (fashion/aesthetics). Pricing models (subscription) and primary user segments have been sketched out, but no substantial market testing or financial modeling has occurred.

Next Stage (BRL 3): Detailed business plan and financial projections developed. Conducting qualitative market research (interviews, focus groups) to validate consumer willingness-to-pay and refine the subscription/service model.

Prototyping & Testing Roadmap

Phase 1: Material Science Foundation (Months 1–12): Focus on achieving TRL 4. Develop and stabilize the core dynamically configurable optical material. **Milestone:** Functional, laboratory-scale demo unit showing realistic color switching under simulated ocular conditions.

Phase 2: MVP Development & Biocompatibility (Months 13–24): Integrate miniaturized control systems and secure power coupling (e.g., induction charging). **Key Step:** Extensive safety and biocompatibility testing of the integrated lens prototype. Parallel development of the core features for the **PrismEyes AR App**.

Phase 3: Targeted Field Trials (Months 25–36): Limited launch of the Beta product (non-selling, non-FDA approved) to a closed group of early adopters, focusing on **Creative Professionals** (P1) for performance and durability feedback. **Goal:** Iterative refinements based on real-world usage and user experience (UX) data gathered via the companion app.

Phase 4: Commercial Model Validation (Months 37–42): Pilot the proposed subscription structure, focusing on logistics, inventory management (lens replacement schedules), and customer support processes, ensuring the high-touch service model is scalable alongside product refinements.

Strategic Launch & Market Integration

Strategic Partnerships: Establish early collaborations with high-end aesthetic clinics and optometrists to position PrismEyes as a medically supervised, premium enhancement. Secure partnerships with major fashion week organizations and global beauty influencers (Digital Creators) to drive aspirational visibility.

Distribution Channels: A hybrid approach: **D2C** via the PrismEyes platform and app (managing subscriptions and customization) coupled with **B2B** distribution through specialized eyewear retailers who can handle initial fittings and medical consultations.

Incentives for Early Adopters: Launch the **'Prism Pioneers'** program, offering exclusive access to limited-edition patterns and discounted subscription tiers in exchange for detailed usage feedback and highly visible social endorsement.

Macrotrend Integration: PrismEyes is perfectly situated within the acceleration of **Personal Identity Expression**, the convergence of **Wearable Technology and Aesthetics**, and the increasing consumer demand for **Non-Permanent Life Enhancements**. It signals a future where biometric appearance is highly personalized and digitally managed.

Next Step: Secure initial funding (Seed Round) focused specifically on hiring two senior Material Scientists specialized in flexible micro-optics and conducting preliminary toxicological assessments of candidate smart display polymers.