



Saliva-Based Hormonal Tracking System Using Biosensors and AI

Non-Invasive AI-Powered Menstrual Health Monitoring

Revolutionizing women's health through accessible, real-time hormonal insights that empower informed decisions about fertility, wellness, and cycle management.

The Challenge in Women's Health Monitoring

Invasive Testing

Blood draws required for hormone monitoring create barriers to regular tracking and discourage consistent health management.

Limited Accuracy

Calendar-based apps rely on averages, missing individual biological variations that impact fertility and health predictions.

No Real-Time Data

Current solutions lack continuous hormone monitoring, leaving women without actionable insights during critical cycle phases.

Missing Personalization

Generic cycle tracking fails to address irregular patterns, PCOS, and unique hormonal profiles affecting millions of women.

Our Solution: Smart Biosensor Technology

We've developed a **saliva-based biosensor device** that makes hormone tracking as simple as brushing your teeth. By detecting estrogen and progesterone levels in real-time, our system provides accurate, personalized menstrual health insights without needles or lab visits.

The device seamlessly connects to a **mobile app** that visualizes hormone trends, predicts cycle phases, and delivers AI-powered recommendations tailored to each user's unique biology.

- Non-invasive sample collection in under 30 seconds
- Clinical-grade accuracy from advanced biosensor technology
- Instant results synced to your smartphone



How It Works: From Saliva to Insight



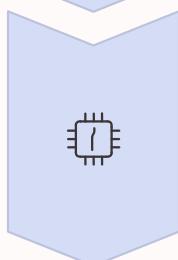
Sample Collection

User provides a small saliva sample using the biosensor device. The process is quick, painless, and can be done anywhere.



Hormone Detection

Advanced biosensors measure estrogen and progesterone concentrations with lab-grade precision in minutes.



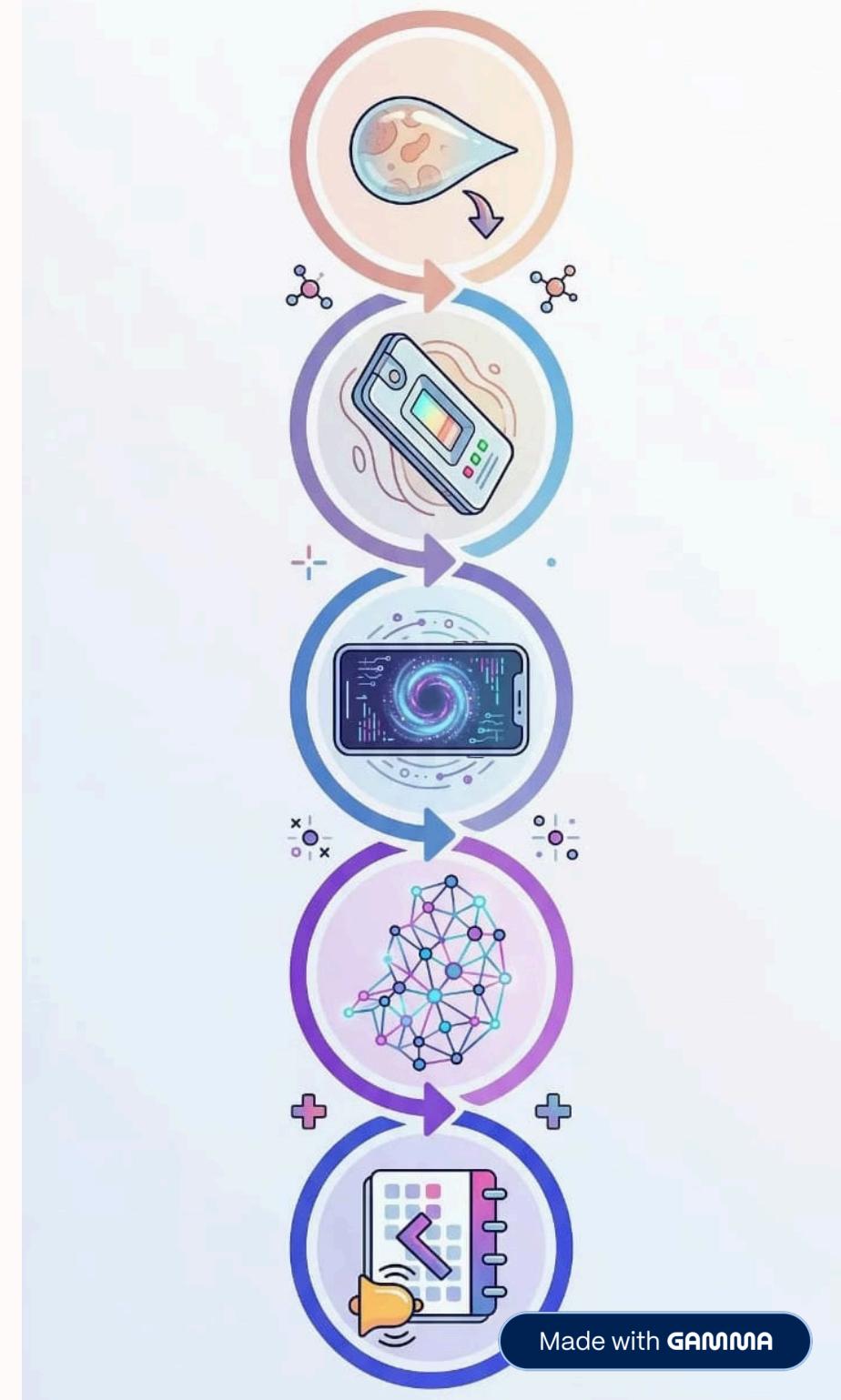
Digital Conversion

Biological signals are converted to digital data through proprietary algorithms that ensure accuracy and reliability.



Mobile Integration

Data transmits wirelessly to the mobile app, where AI analyzes patterns and delivers actionable health insights.



AI-Powered Cycle Prediction

Intelligent Pattern Recognition

Our machine learning algorithms analyze daily hormone fluctuations to understand your unique cycle signature. The system continuously learns from your data, becoming more accurate with each cycle.

01

Data Analysis

AI processes hormone trends across multiple cycles

02

Pattern Learning

Identifies individual biological rhythms and variations

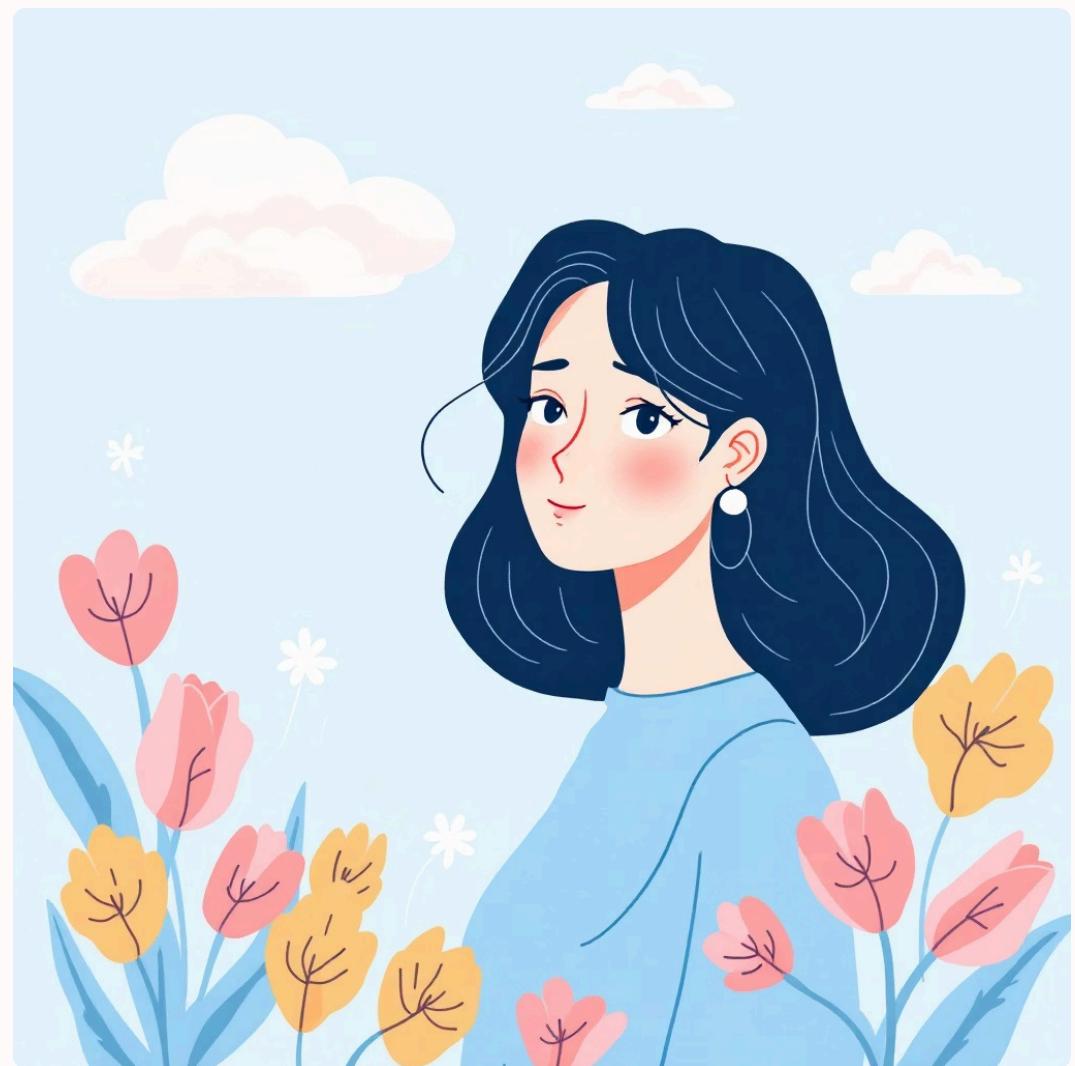
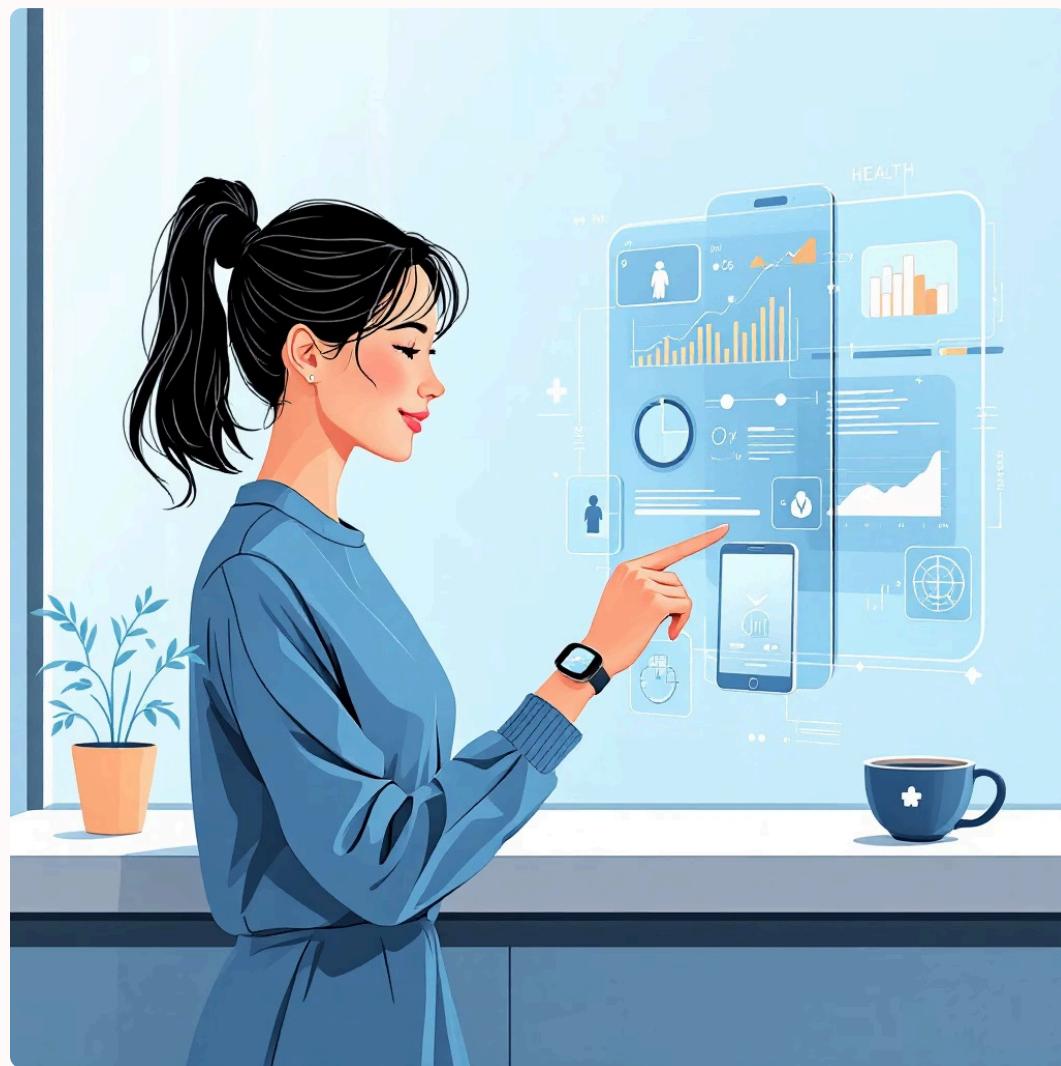
03

Predictive Insights

Forecasts ovulation and menstruation 5-7 days ahead



Target Market & Customer Segments



Students & Professionals

Tech-savvy women balancing education or careers who need convenient, accurate cycle tracking without clinic visits.

Irregular Cycle Management

Women with PCOS, hormonal imbalances, or unpredictable cycles requiring personalized biological insights.

The global FemTech market is projected to reach **\$103 billion by 2030**, with hormone monitoring representing a rapidly growing segment driven by demand for non-invasive, data-driven women's health solutions.

Business Model & Revenue Streams



Hardware Sales

One-time purchase of biosensor device with proprietary technology

Price point: \$89-129



App Subscription

Monthly access to AI insights, cycle predictions, and data storage

\$9.99/month or \$89/year



Premium Analytics

Advanced health reports, fertility coaching, and personalized recommendations

\$14.99/month premium tier



B2B Partnerships

Bulk sales to clinics, wellness centers, and corporate health programs

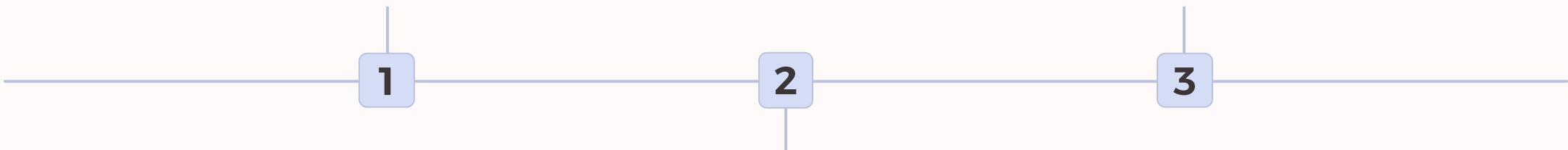
Enterprise licensing model

- Our hybrid hardware-software model creates recurring revenue while maintaining affordable entry pricing to maximize market penetration.

Go-To-Market Strategy & Financial Outlook

Phase 1: Launch

Direct-to-consumer through university health centers and social media campaigns targeting early adopters



Phase 3: Expand

Clinical partnerships with gynecology practices and wellness centers for professional recommendations

Phase 2: Scale

App store distribution with freemium model and strategic partnerships with women's health influencers

Financial Snapshot

Device Cost

\$35 manufacturing

Software Model

95% gross margin

Year 1 Target

10,000 users

Break-Even

Month 18

65% margin

Recurring revenue

\$1.2M revenue

30% YoY growth

Impact & Future Vision

Transforming Women's Healthcare

Our technology democratizes access to hormonal health insights, empowering women with the biological data they need to make informed decisions about fertility, wellness, and lifestyle choices.

Immediate Impact

- Non-invasive alternative to blood tests
- Improved cycle awareness and planning
- Reduced healthcare costs and clinic visits

Future Expansion

- Multi-hormone detection (cortisol, testosterone)
- Integration with smartwatches and wearables
- Hospital and fertility clinic partnerships



"By combining biosensor innovation with AI, we're not just tracking cycles—we're unlocking a new era of personalized, proactive women's health management."



Thank You

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Saliva-Based Hormonal Tracking System

AI-Powered FemTech Innovation