

eabderrahma

Final Product Summary. Sweat- Reactive Hydration Band

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DELIVERABLE: FINAL PRODUCT OVERVIEW

VERSION: V1

2025/10/15

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Product Overview

The Hydration Band is a non-digital, sweat-reactive wristband that trains athletes to hydrate instinctively. It uses color chemistry rather than screens or sensors: as the athlete sweats, the band’s surface changes color, visually reminding the user to drink. This creates a subconscious behavioral link between color and hydration timing.

How It Works

The band contains sweat-responsive thermochromic ink embedded in its fibers. As body temperature and moisture increase, colors transition through Blue → Yellow → Orange → Green, mirroring hydration phases. The athlete doesn’t need to rotate, touch, or check anything — the band reacts naturally to effort and time. Once dry, it returns to its neutral grey state, ready for the next session.

Color Logic

Color	Meaning	Phase	User Action
Grey	Neutral / Ready	Before race	Check gear and hydrate calmly
Blue	Start – Body cool	Pre-race	Drink small glass before start
Yellow	Effort rising	Early race	Take one sip
Orange	High intensity	Mid race	Hydrate steadily
Green	Cooling down	Post race	Rehydrate gradually

Design Details

Feature	Description
Material	Elastic, breathable fabric coated with moisture-sensitive ink.
Mechanism	Color pigments react to sweat humidity and body heat.
Maintenance	Washable and reusable for up to 50 uses.
Environmental Impact	Non-toxic thermochromic ink, safe for skin and environment.
Form Factor	Lightweight, stretch-fit band (20 g).
Cost Target	Under 10\$ per unit for scalable production.

Why It Works

- 100% non-digital – no batteries, no apps, no distractions.
- Color change offers instant feedback linked to physical state.
- Builds hydration habits through sensory reinforcement.
- Provides a natural rhythm between effort, sweat, and hydration.
- Fits seamlessly into any athletic routine and gear setup.

Impact & User Benefit

The Sweat-Reactive Hydration Band bridges science and behavior design. It empowers athletes to understand and respond to their body’s hydration needs instinctively. By translating physiological effort into visible cues, it prevents dehydration, improves comfort, and builds sustainable, mindful training habits.

“Color Your Rhythm / Drink by Instinct.”

THE HYDRATION BAND

