

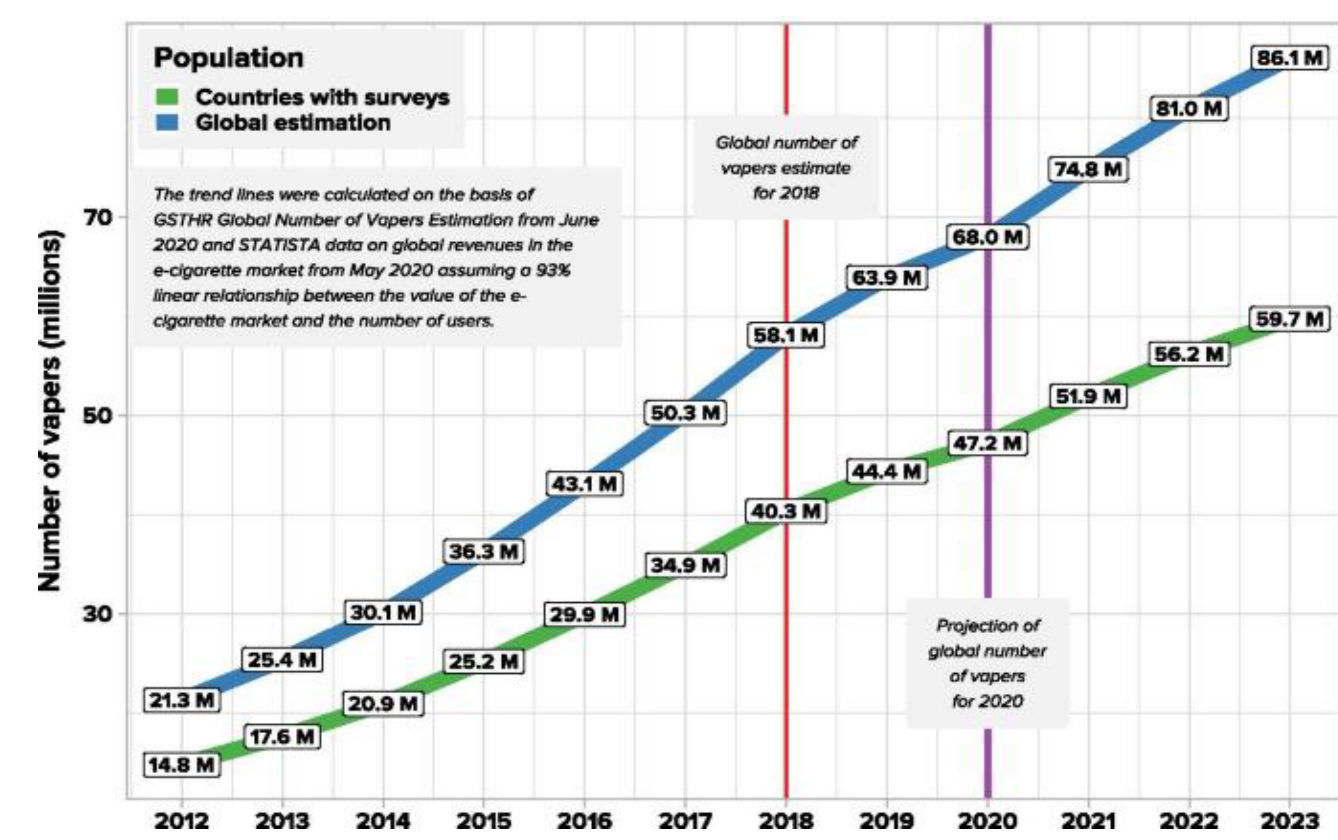
Making Vaping Visible and Manageable for Adult Users

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BACKGROUND

Vaping has become a large and growing market, with global estimates exceeding \$45 billion in 2025. In the U.S., approximately 14.1 million adults (5.6%) currently use e-cigarettes (CDC, 2023). At the same time, nearly 1 in 3 adults use wearable devices to track daily behaviors such as steps and sleep (NHLBI, 2023).



PROBLEM

Most adult vape users do not have a clear way to see how much they actually use throughout the day. Because vaping often happens in short, repeated moments, users often rely on memory or rough self estimation instead of visible usage data. This makes it harder to notice overuse, set limits, or tell whether reduction efforts are really working.

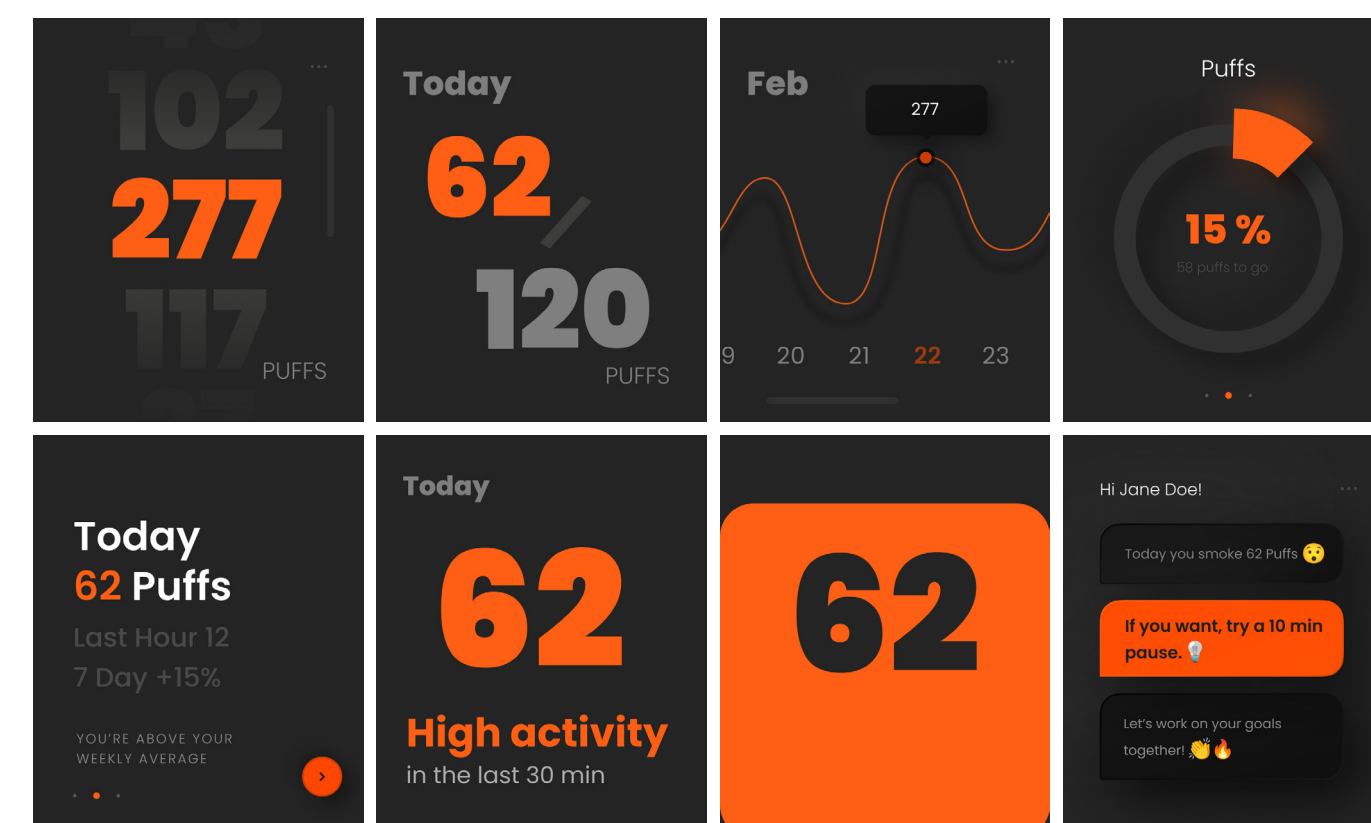
TARGET USERS

Frequent Users Users whose vape use is repeated, fragmented, and difficult to estimate.
Reduction Oriented Users Adults who want to cut down and need a more visible way to track progress.

SOLUTION



UX



PROTOTYPE

Interview

Interviewed a regional vape manufacturer CEO to gain insights on user behavior, device limitations, and feasibility of usage tracking solutions.



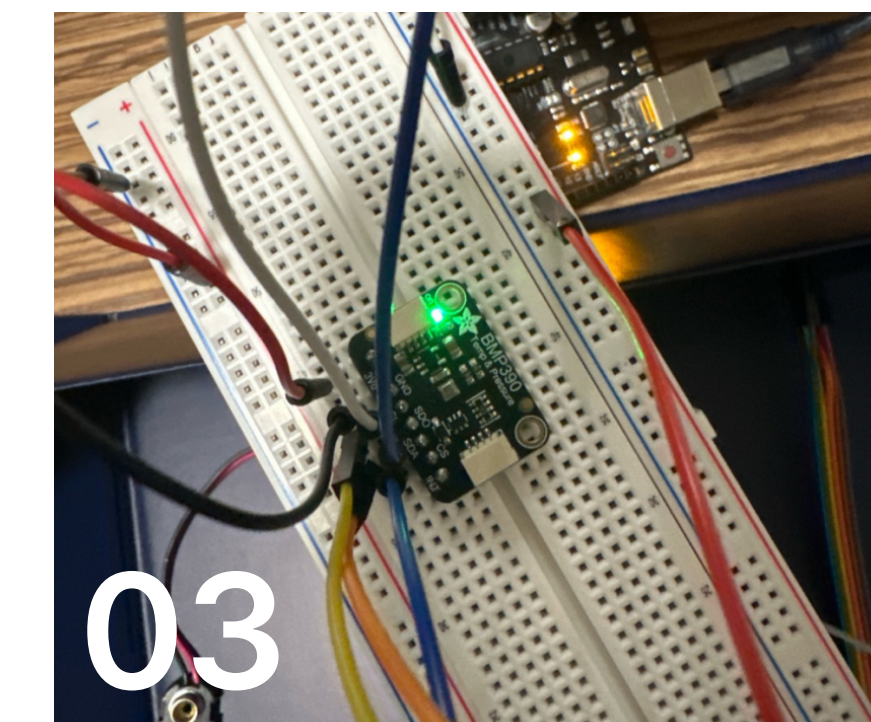
Product Disassembly

Disassembled common vape devices to study airflow structure and identify feasible sensor placement points.



Electronic Construction

Integrated hardware and display to deliver real-time puff count, duration, and usage frequency.

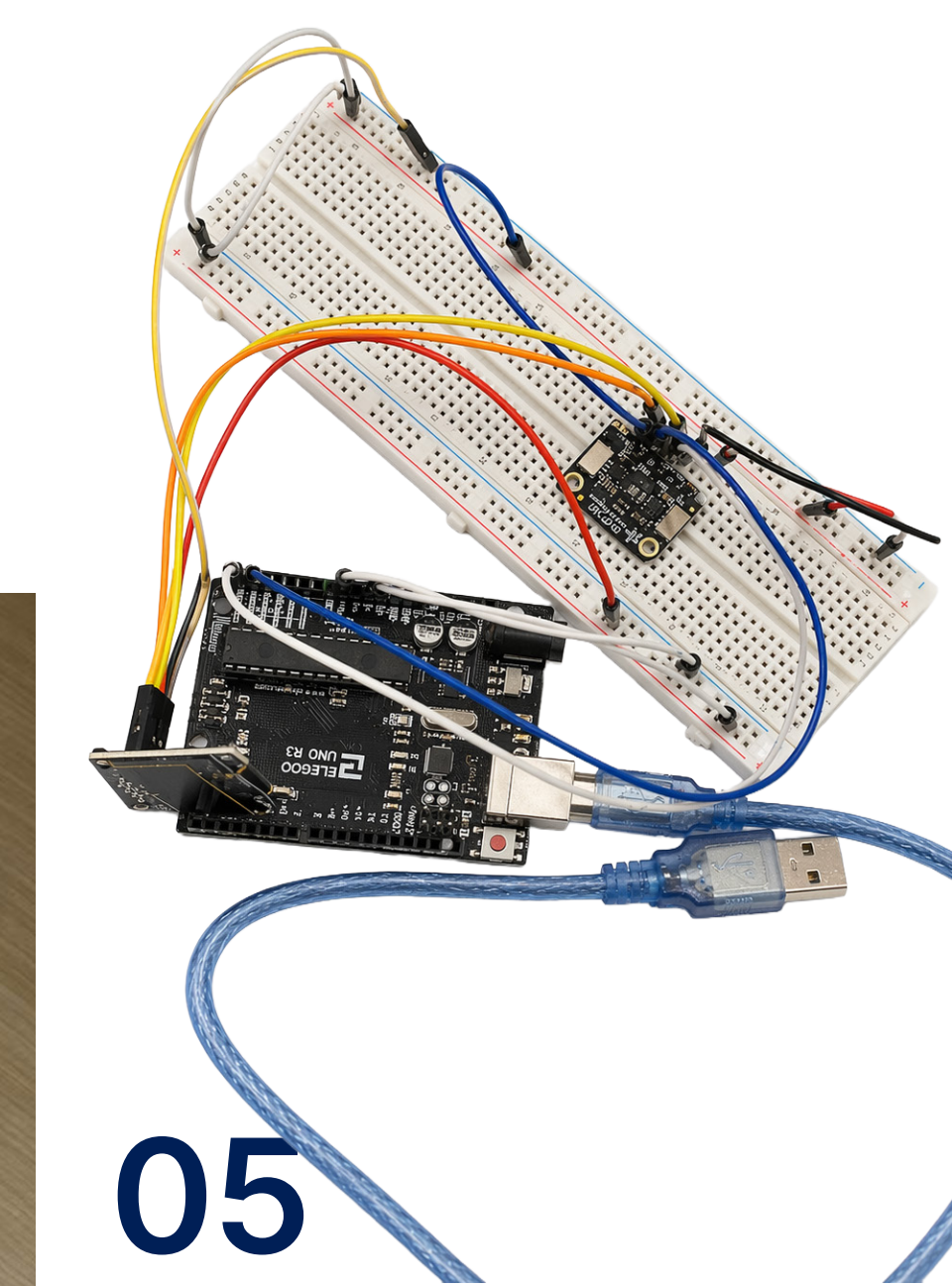


3D Print

To test and verify the dimensions, we created a 3D model in Rhino and printed it multiple times using PLA.



Minimum variable output



SOLUTION



1. Attach

Attach VPC to a compatible vape mouthpiece.



2. Inhal

Continue vaping as part of normal daily behavior.

3. Track

View puff count, usage duration, and usage frequency on the device.

CORE VALUE

Low Friction

Fits into normal behavior without repeated manual logging.

Easy to Understand

Shows simple metrics that users can read quickly.

Behavior Focused

Supports awareness, moderation, and reduction oriented use.

RESULT

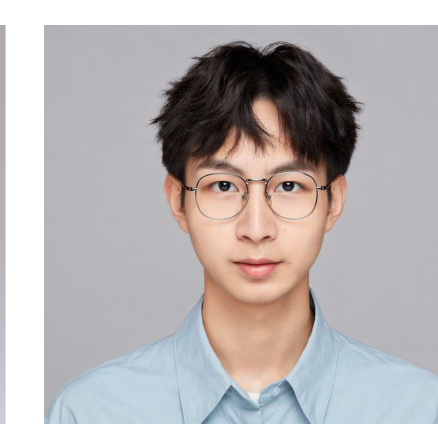
Our MVP testing demonstrates that real-time usage feedback significantly improves user awareness and engagement. Early validation was supported by both user testing and industry expert input, indicating strong alignment between product functionality and real-world needs.

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MEET THE TEAM



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