

DriveBoy Your Emotional Co-Driver



Community

- Long-Distance and Professional Drivers
- Solo Drivers
- Drivers Who Have No One to Check on Them



Why They Matter

These drivers face continuous mental load, rapid fatigue buildup, and increased safety risks, yet they lack an immediate, emotionally supportive companion device that can help them monitor and regulate their state in real time.

Problem

- 13%** of truck accidents are fatigue-related (FMCSA + NIH)
- 91K** crashes and 50K injuries due to drowsy driving (NHTSA)
- 65%** report feeling fatigued
- 13%** admit falling asleep (CloudTrucks Survey)



3. Mobile Games & Apps

Casual Mobile Gaming

When truckers need a quick break, mobile games are a fun way to pass the time. Simple games like solitaire, puzzles, and racing games are easy to play during rest stops or when parked for the night. Many truck drivers also enjoy trucking simulators, which provide a fun way to practice their skills and relax.

Brain-Training & Educational Apps

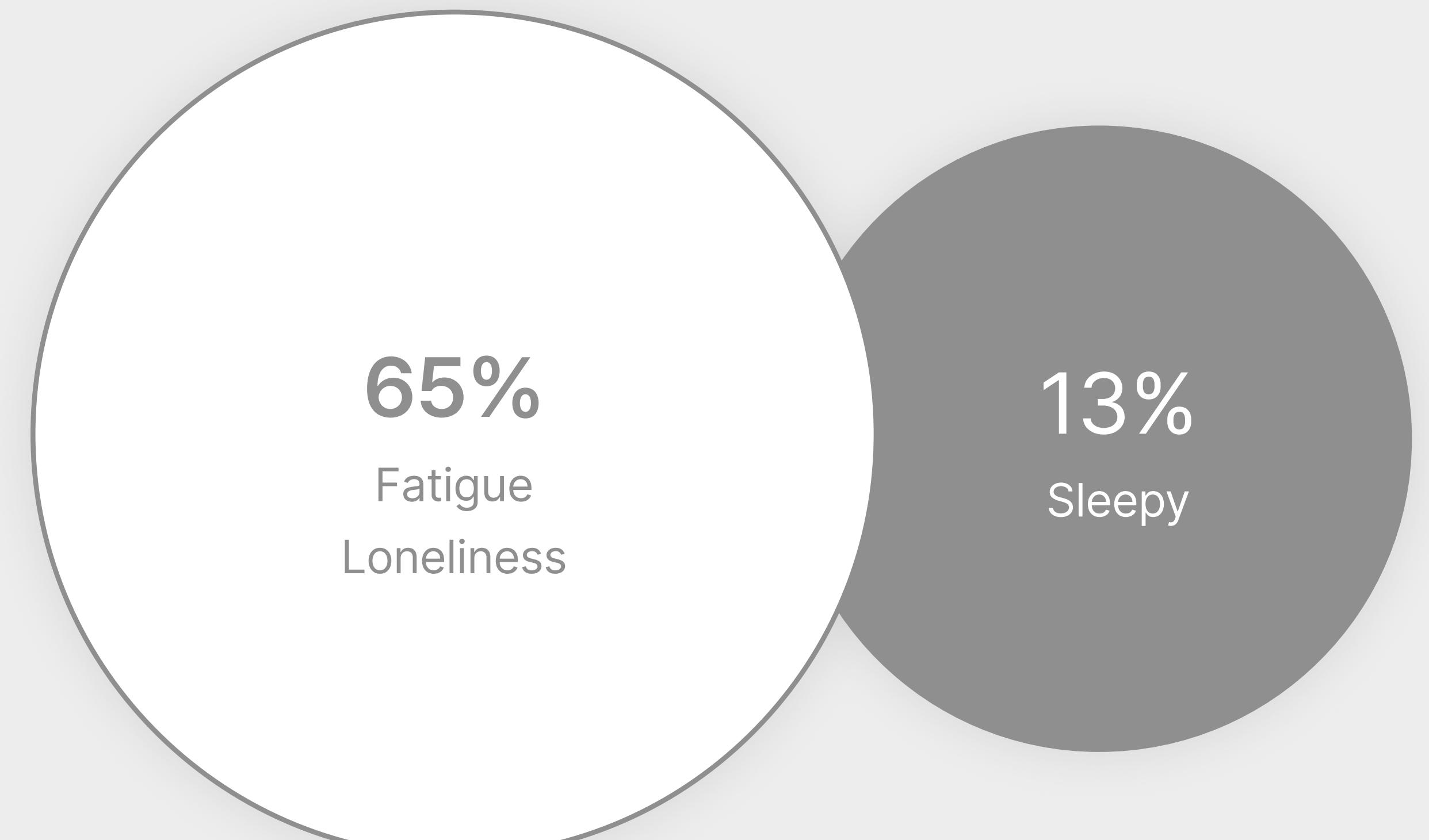
Equally important to **staying healthy on the road**, brain-training and educational apps are great tools to keep your mind sharp. Apps like Duolingo help users learn new languages, while Khan Academy offers free courses on various subjects. Lumosity has brain exercises to improve memory, focus, and problem-solving skills.

Research & Discovery

Long-distance drivers often experience accumulated fatigue, emotional numbness, and difficulty recognizing when they actually need to rest.

Humans tend to **underestimate their own fatigue**, especially during monotonous driving conditions. Currently, GPS navigation systems only guide the route —they do not provide emotional feedback or encourage mental breaks.

So I wanted to create an emotionally responsive driving companion — not just a navigation tool, but a co-presence that actively reflects the driver's state back to them.



Interview

"My day usually starts between 2 and 4 a.m. I first inspect the truck's condition, grab a coffee, and then begin a long-haul drive. I drive up to 11 hours a day, and at each drop-off or pickup point, I interact with warehouse staff and wait for loading or unloading. After work, I usually sleep inside the truck, either in a parking lot or at a rest stop."

"We work as a team, driving across the country day and night. The best part is seeing beautiful scenery and discovering new cities — but the downside is the constant fatigue and loneliness."



Problem & Solution

Fatigue

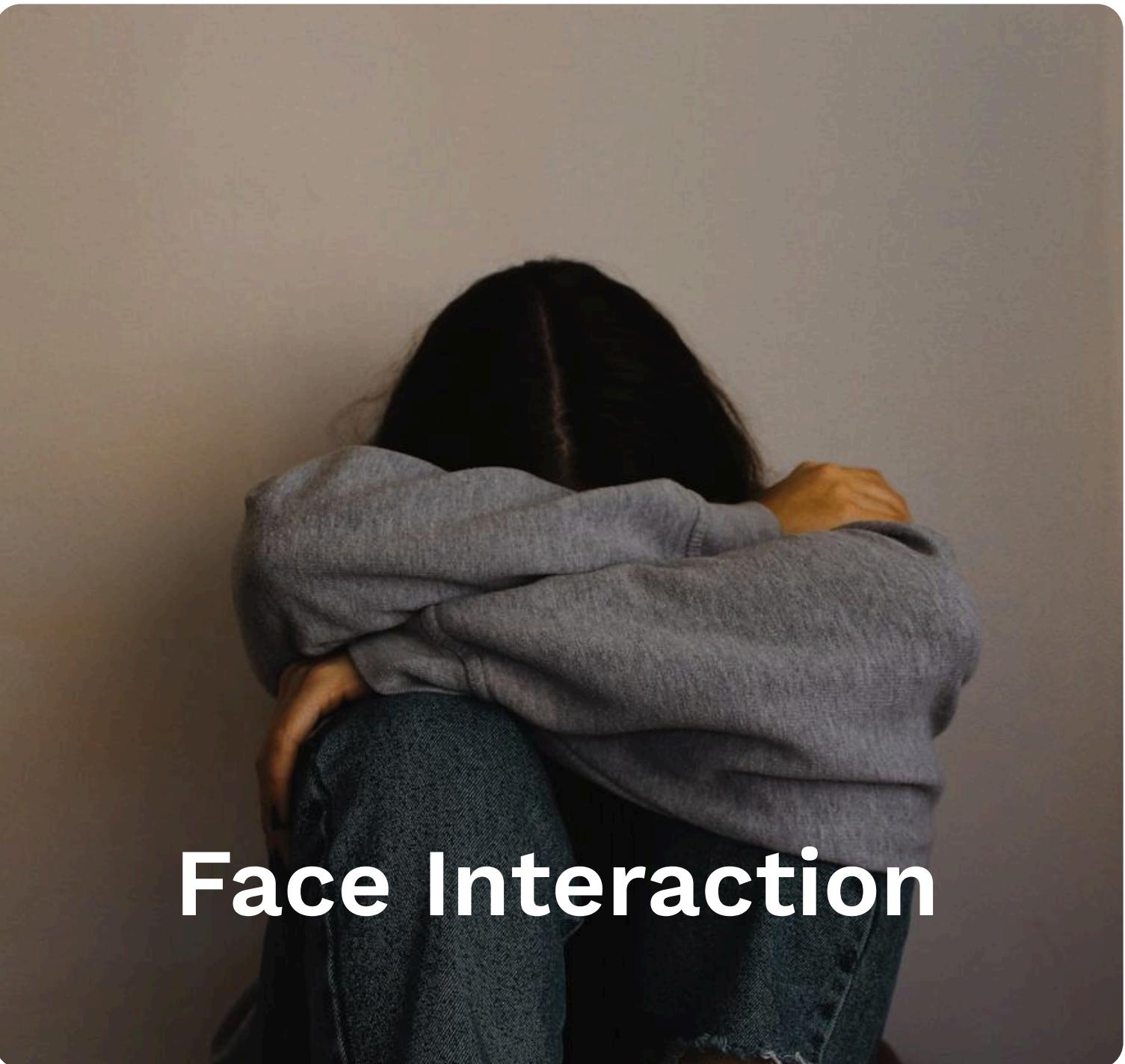
Gentle intervention
for fatigue prevention



Time Feedback

Isolation

Emotional presence
through soft interaction



Face Interaction

Rest stops

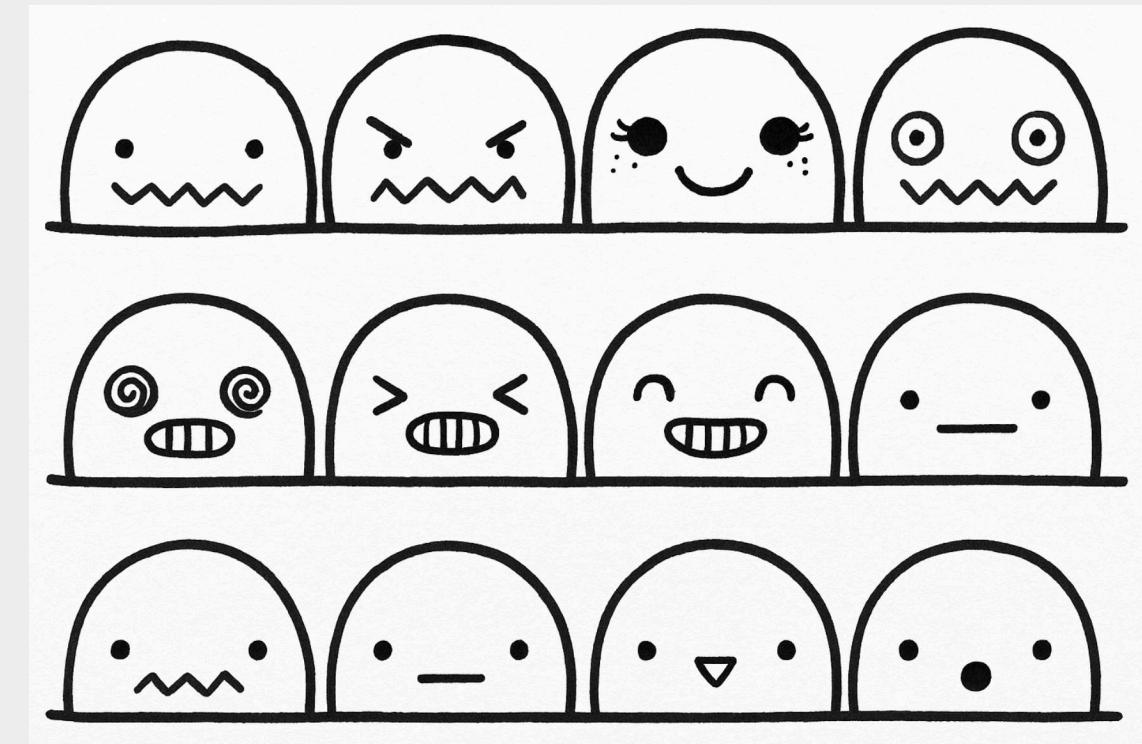
Context-aware rest guidance
without breaking driving flow



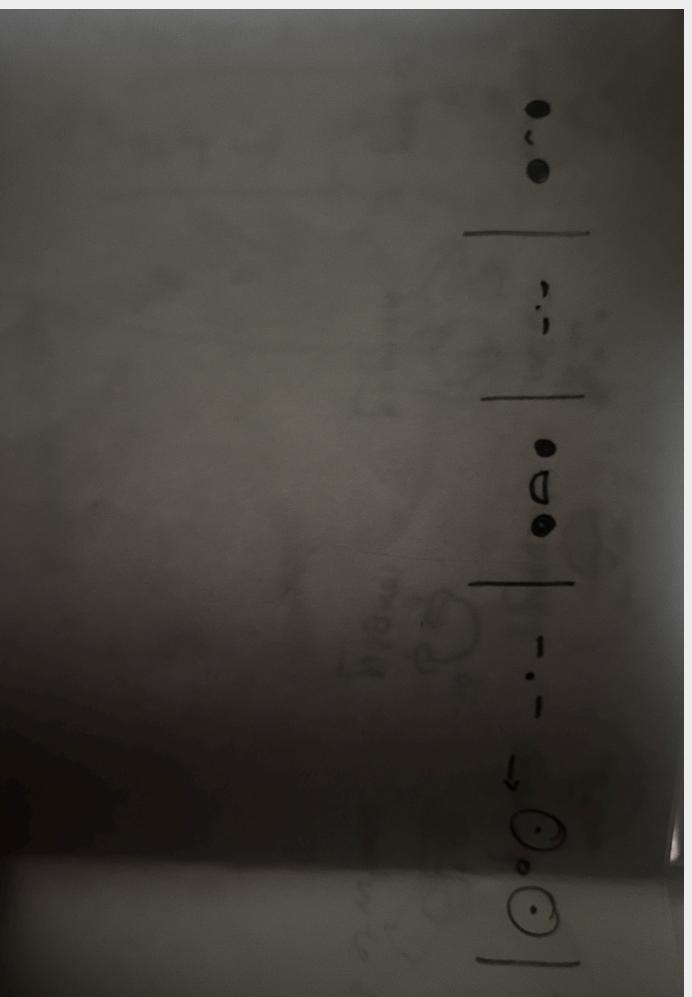
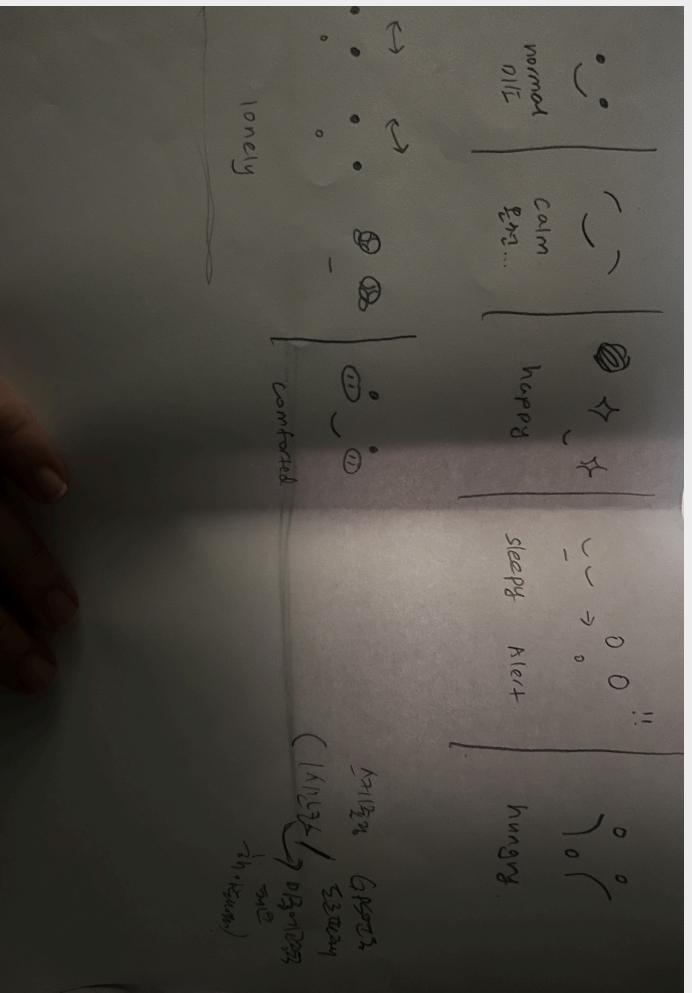
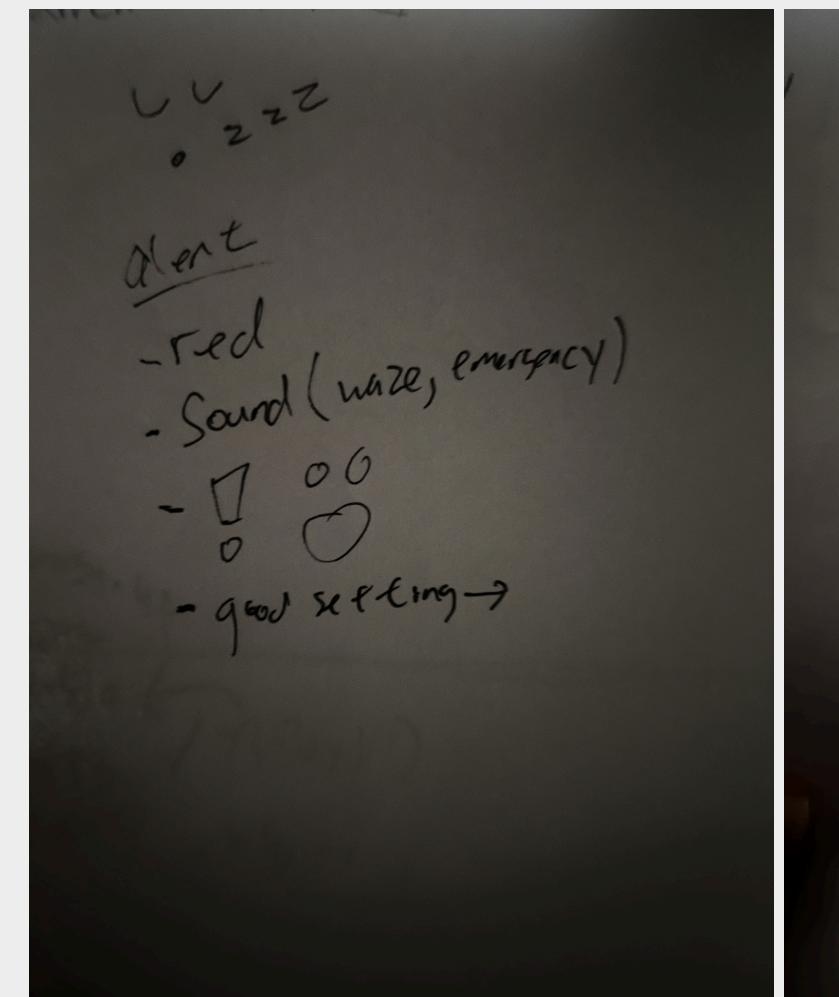
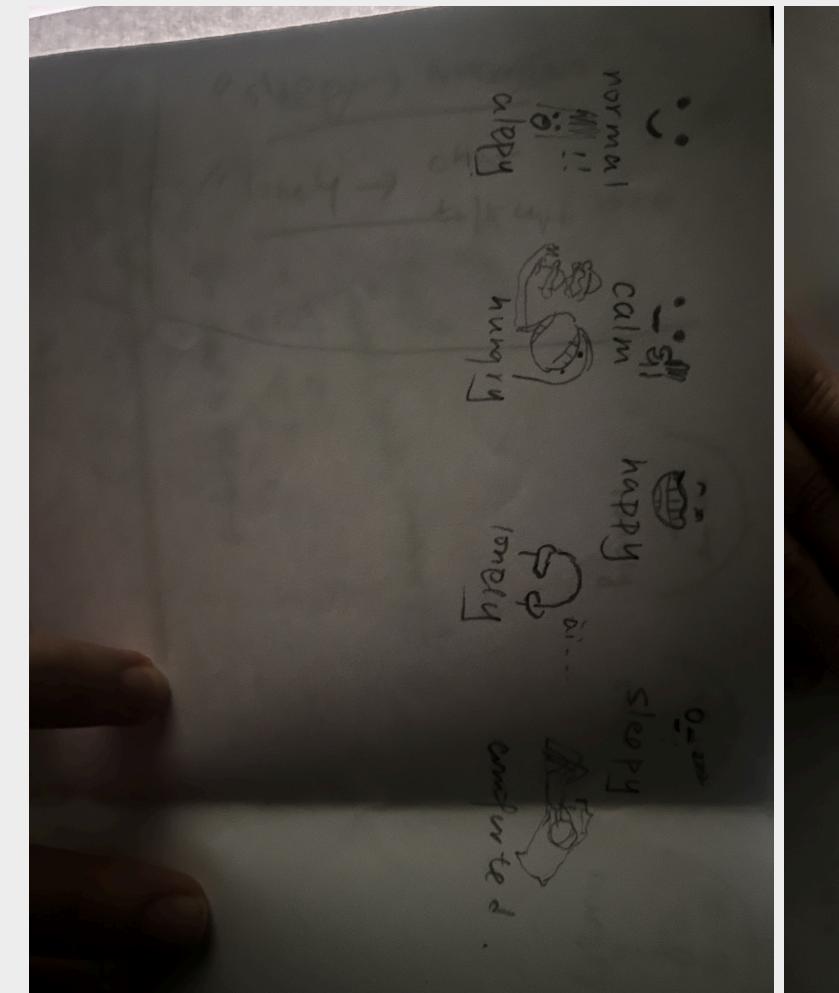
Share Location

Design Iteration

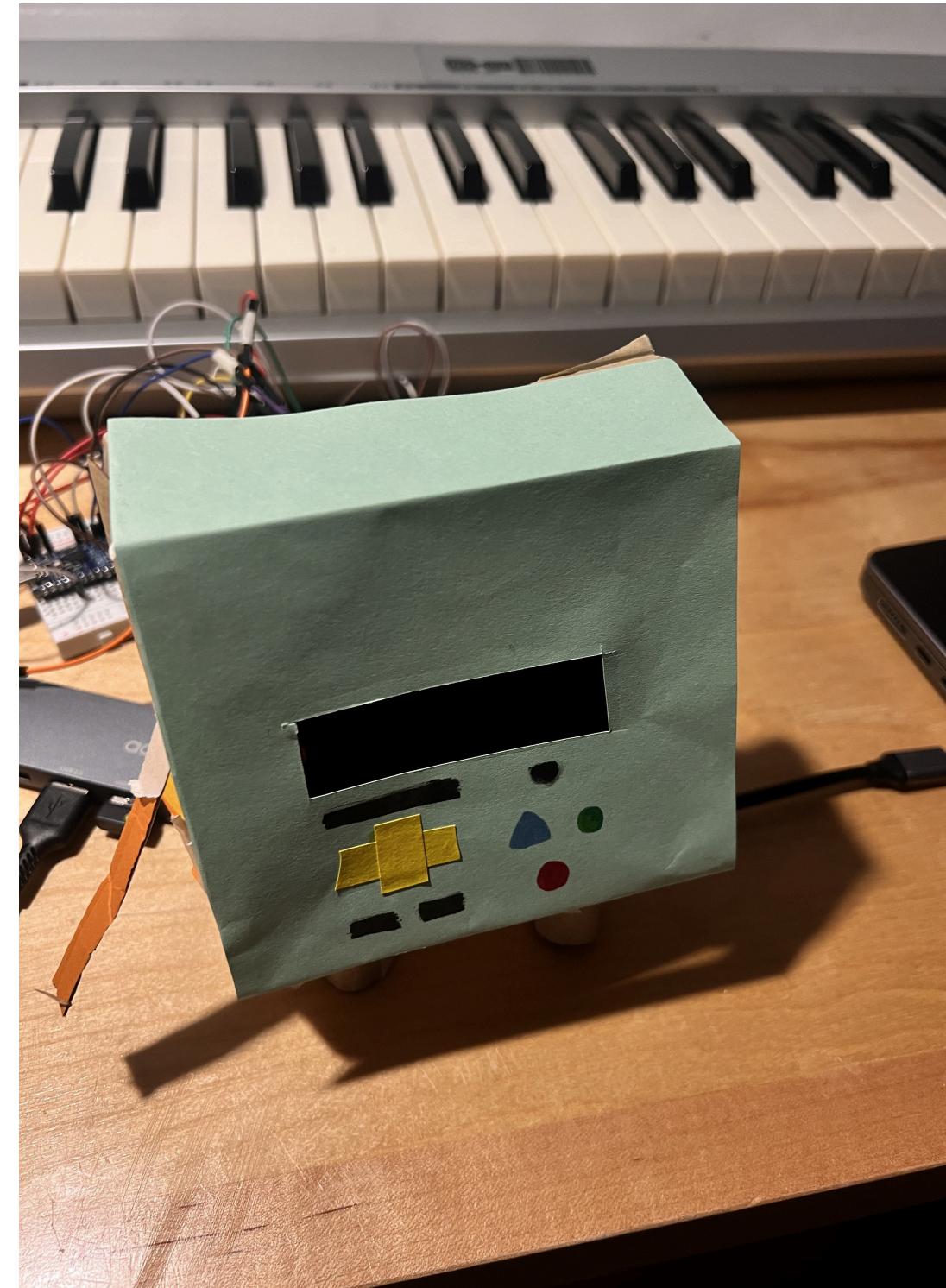
Face interaction - Data collect



SAFETY LAYER → ALERT /
SLEEPY / STRESSED
EMOTIONAL LAYER →
LONELY / COMFORTED /
HAPPY
WELLNESS LAYER → CALM
/ HUNGRY / NORMAL



Design Iteration



Live Demo

"NORMAL ^*^",
"CALM (- -)",
"HAPPY ^o^",
"SLEEPY -*-",
"ALERT O_O",
"HUNGRY :P",
"LONELY ;_:",
"COMFORT uwu"

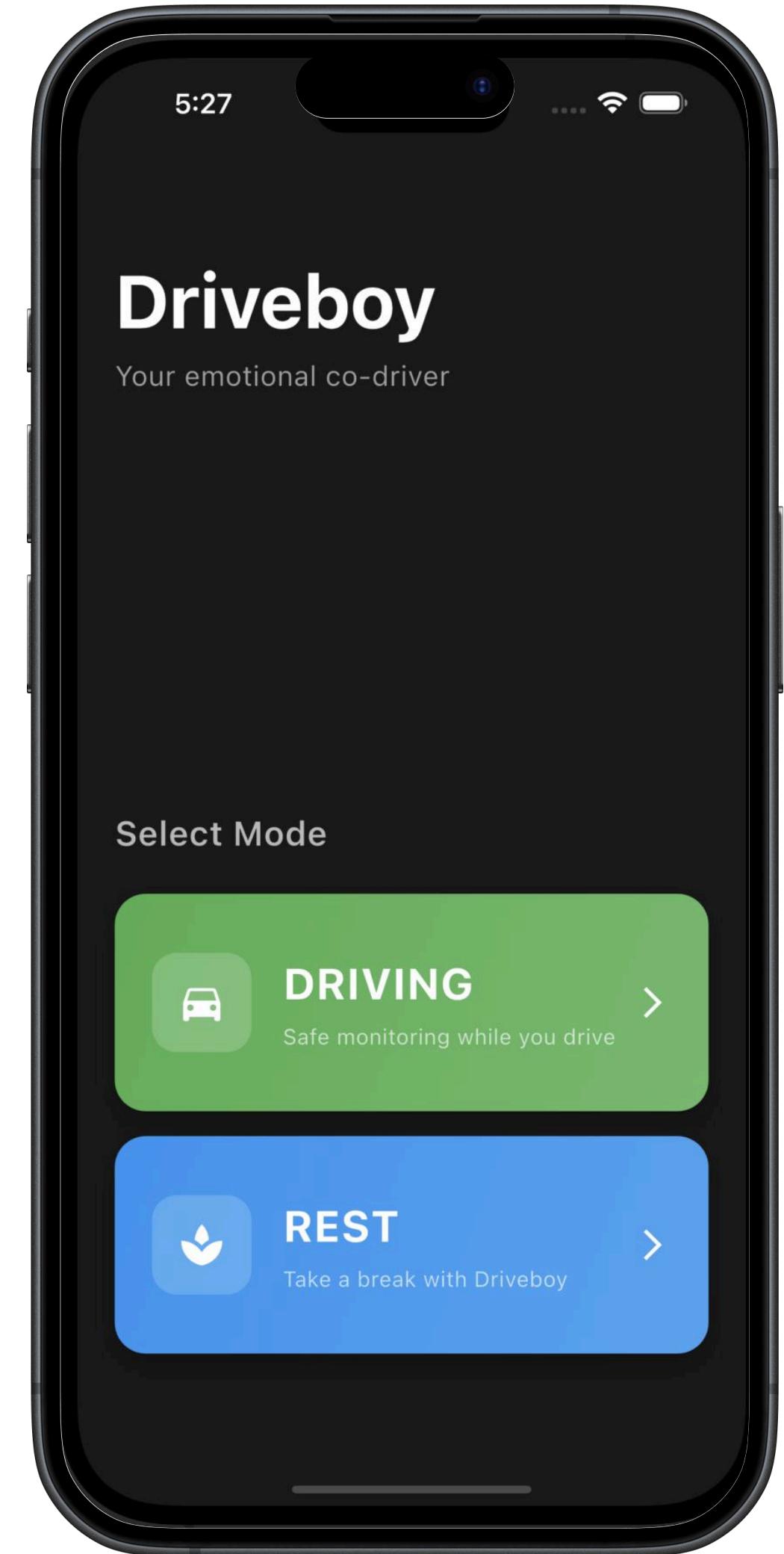
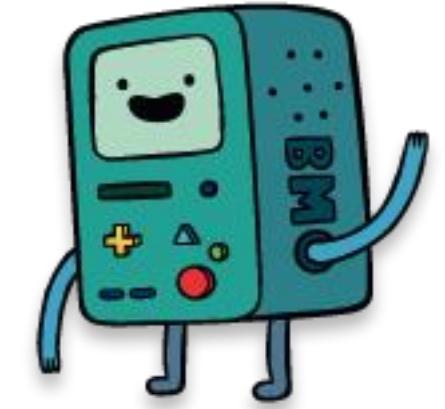
<https://youtube.com/shorts/6hnh9SocZtg?si=5WSgn7RZk1rqqlHI>

Feedback

- Missing emotional connection
Screen's face color is blue lacked warmth → **Change screen!**
- Follow Automotive UX Standards
- Automotive UX: Minimal attention, maximum safety

Design Concept

More Big Screen
Change Color Of Face
2 Modes (Driving, Resting)

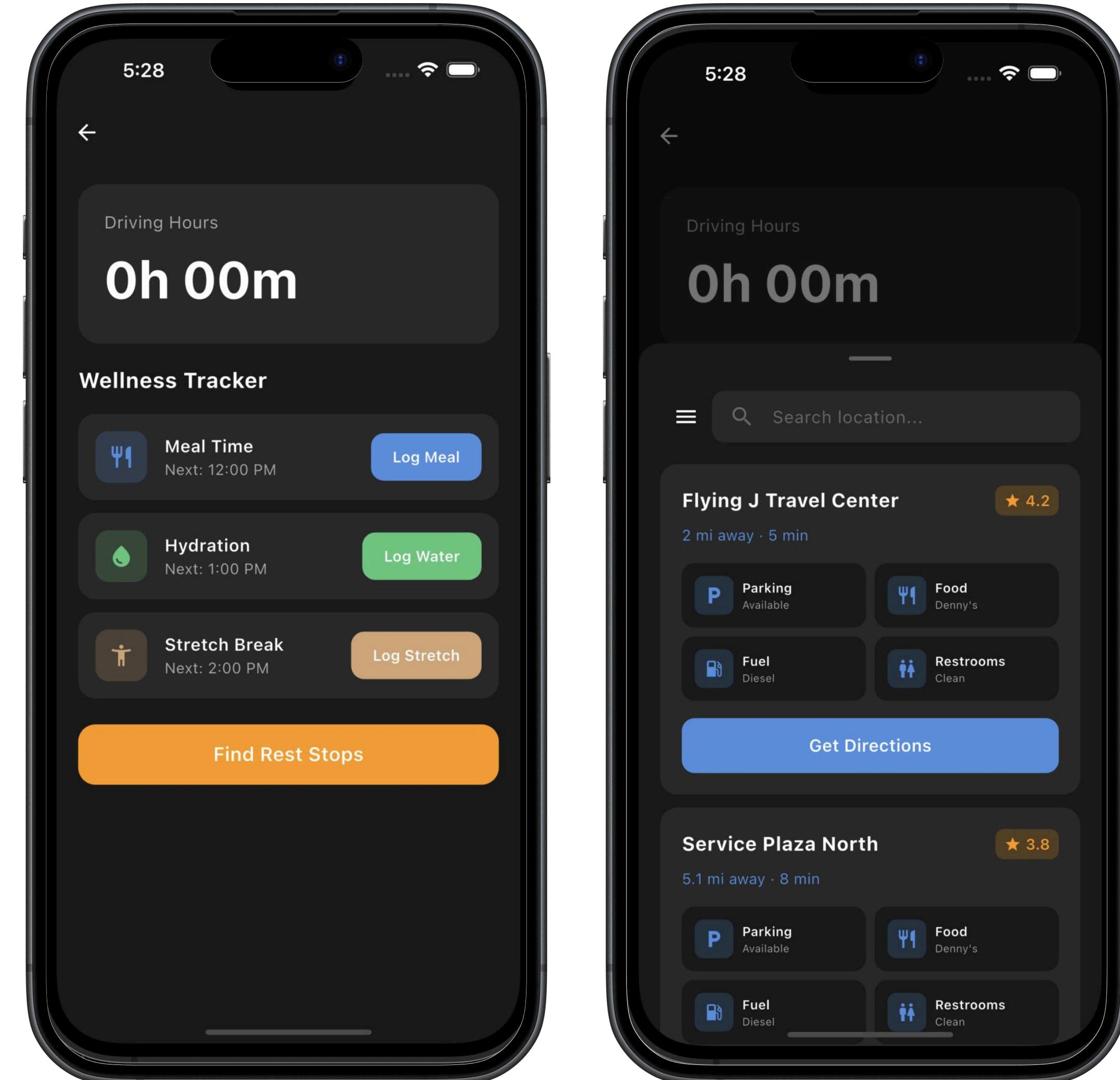


Design Concept

Drive Mode

Rest areas & Health care

Smart fatigue & wellness assistant for drivers. GPS-based alerts recommend nearby rest areas, meal breaks, and wellness routines to prevent fatigue-related risks.



Design Concept

Rest Mode

Face interaction,
Play games,
Singing together



Live Demo



Thank You!