

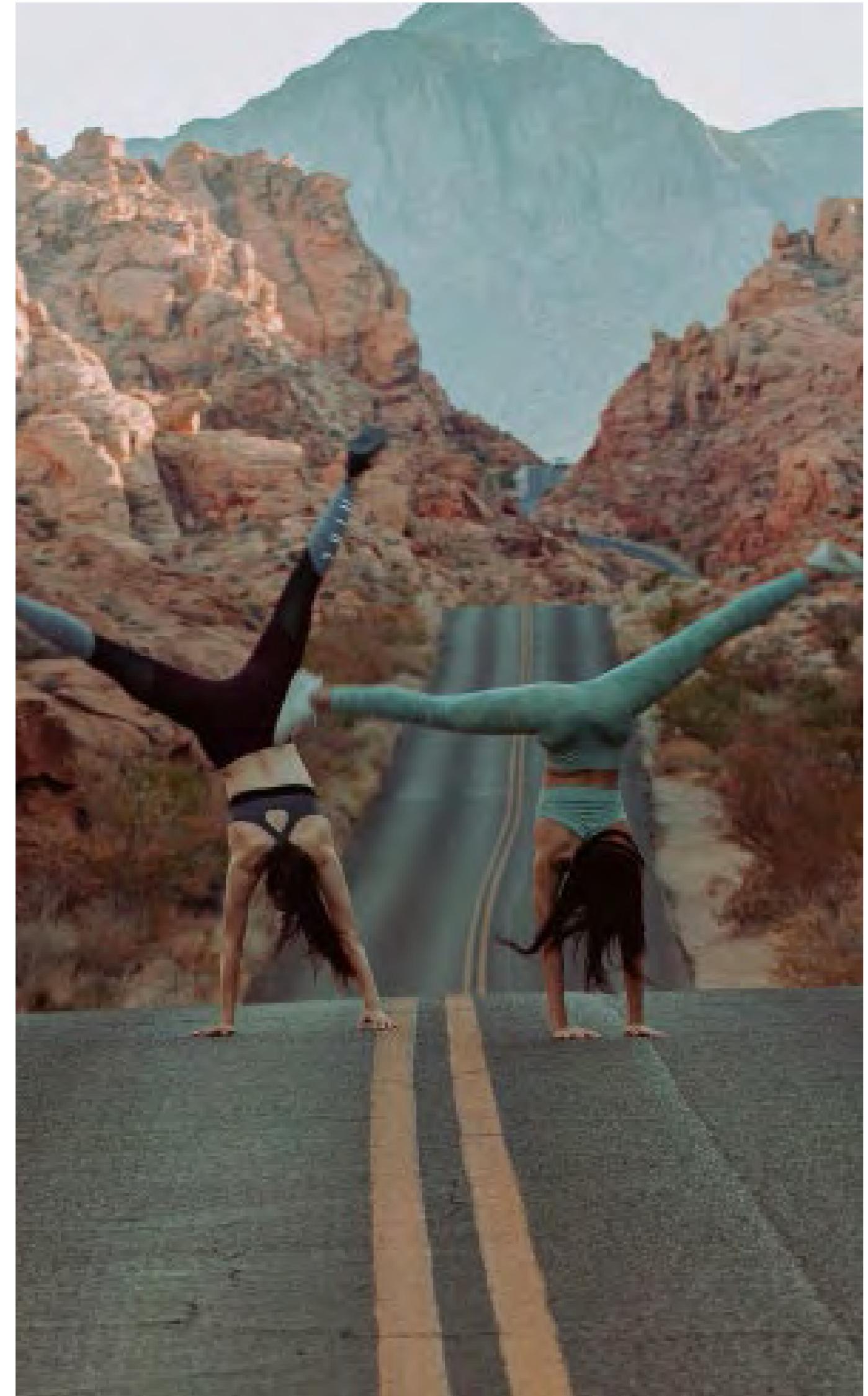


air

POWERED
OUTDOOR
GEAR

The outdoor consumer is changing

Seeking New Experiences



Consumer spending has shifted to creating memories

Urban-Outdoor Gap



The Outdoor Industry Association estimates that around 34% of outdoor consumers live in urbanized areas, and that ratio will continue to grow with ongoing urbanization trends

Self actualization



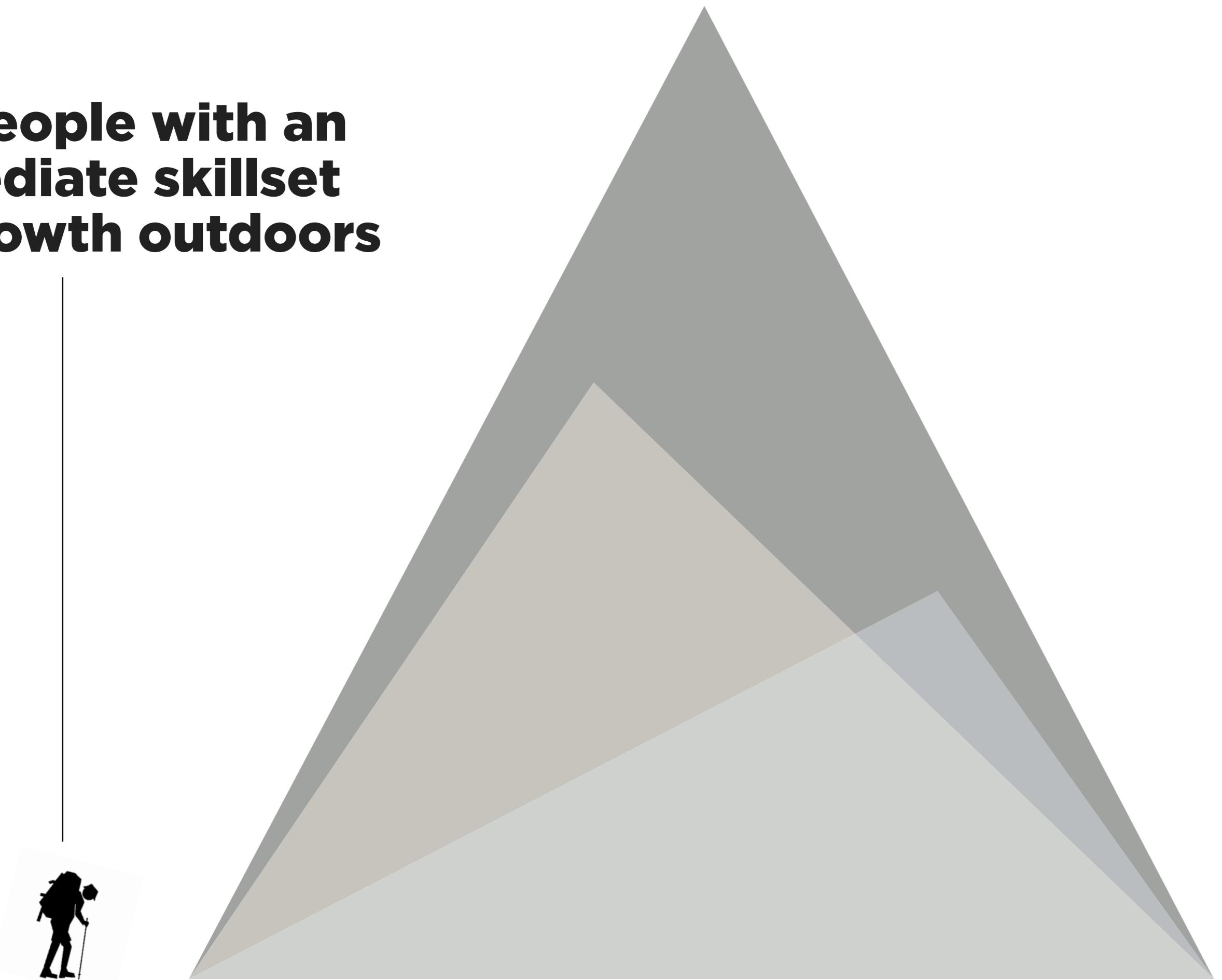
Consumers are looking for gear that not only supports their active lifestyle, but allows them to express their beliefs and values through the brand they choose to wear

Sustainability

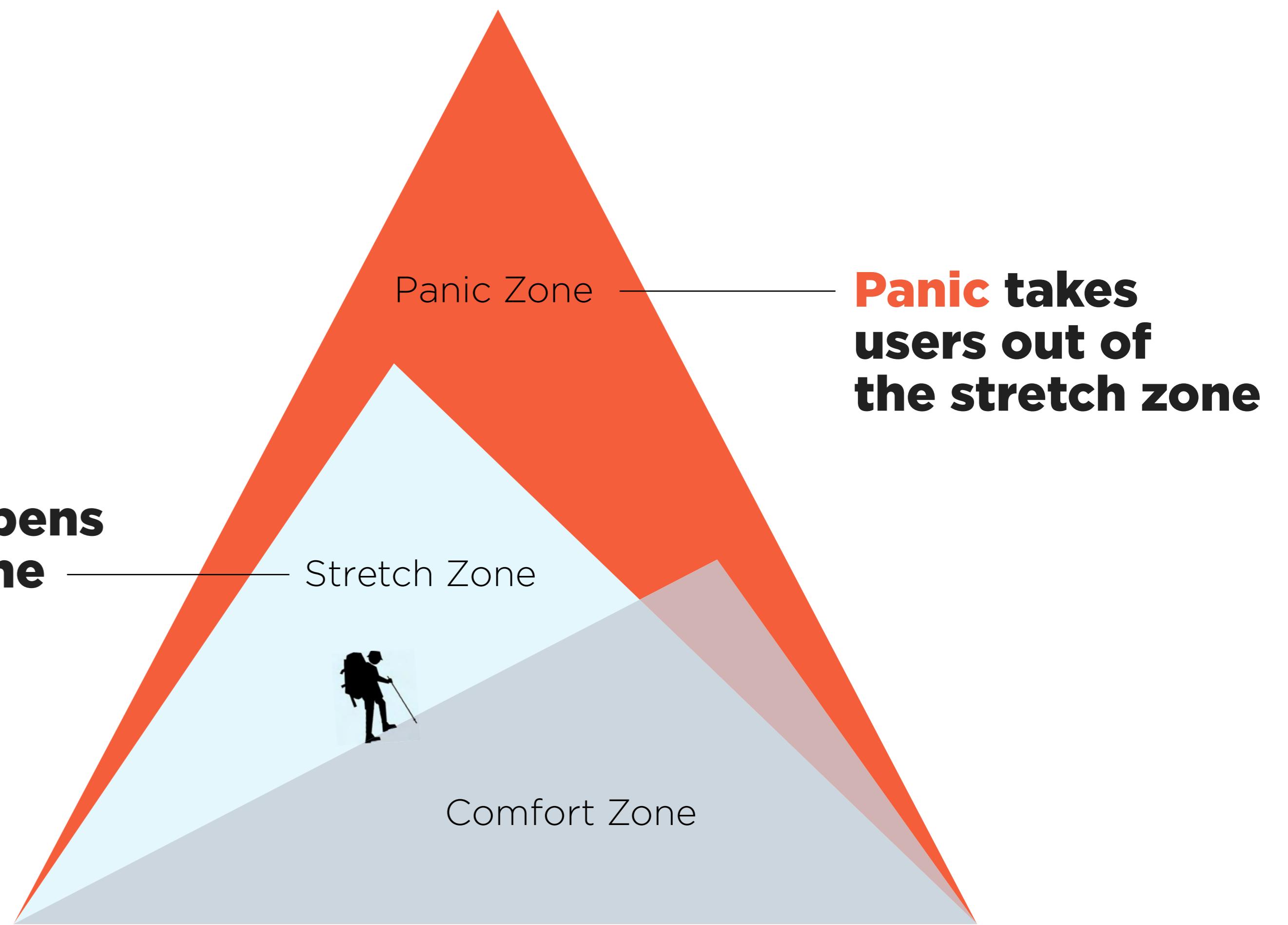


1 in 3 buyers rate sustainability as extremely important in their purchasing decisions, according to NPD Group

Many people with an intermediate skillset seek growth outdoors

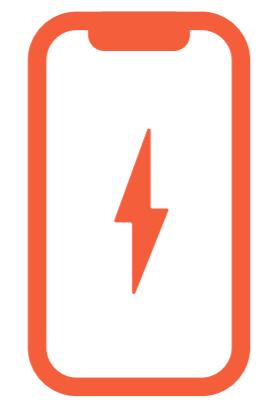


This growth happens in the stretch zone

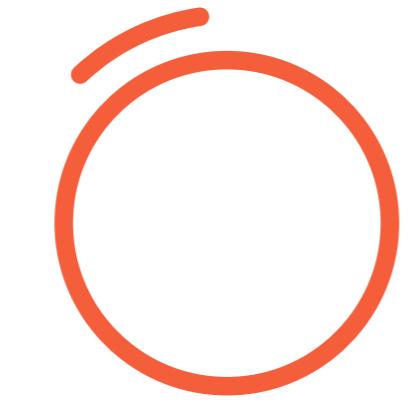


We found that panic comes from 5 categories

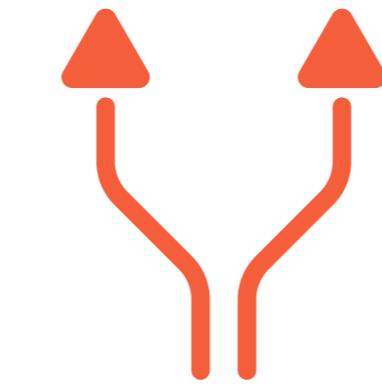
RELIABILITY



ORIENTATION



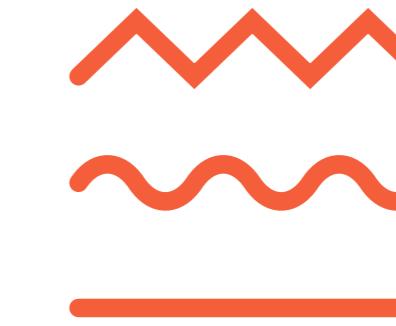
SEPARATION



COMMUNICATION



FLEXIBILITY



And developed 5 tools to combat these problems

POWERBANK

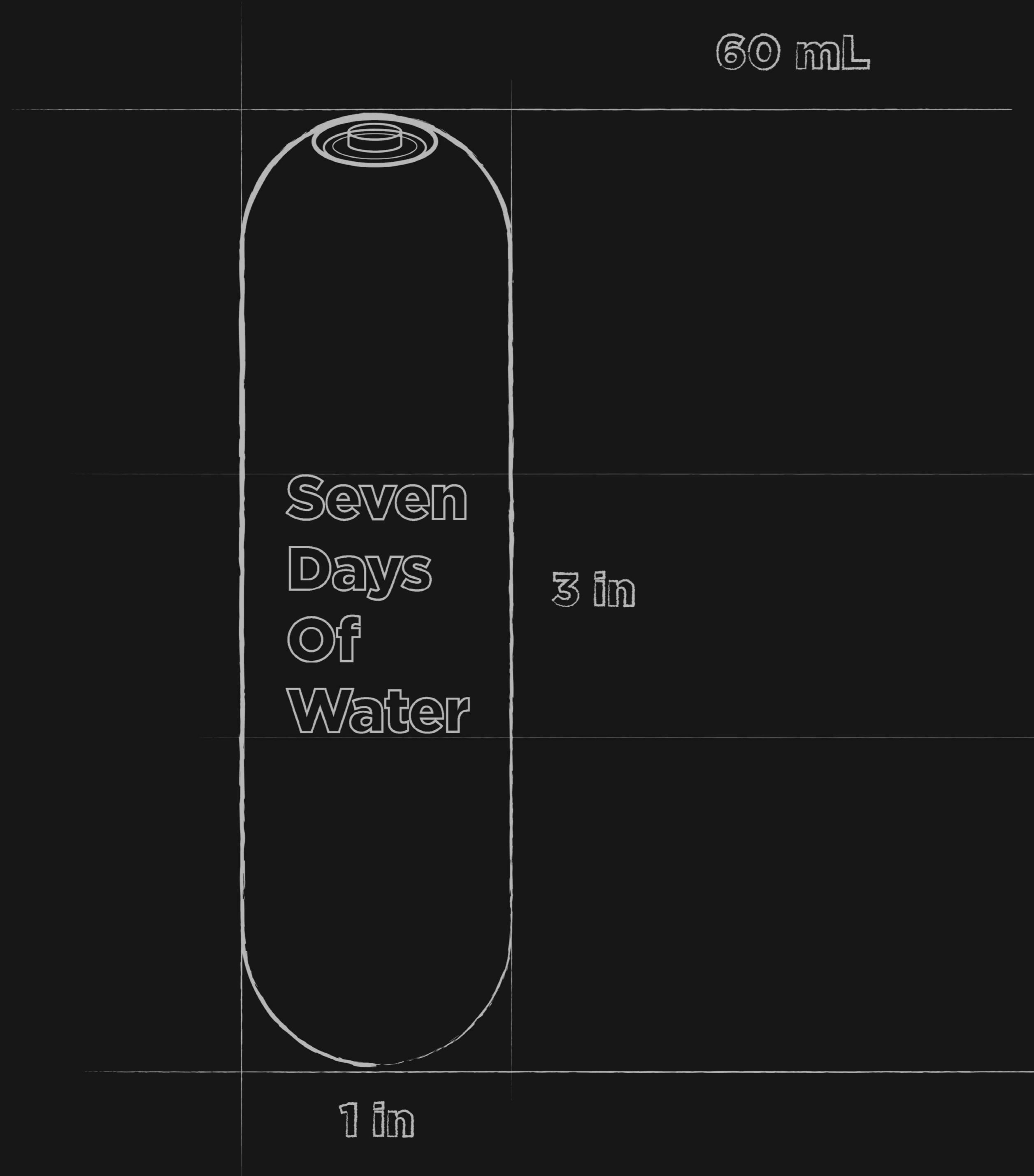
NAVIGATOR

TRACKER

BEACON

PURIFIER

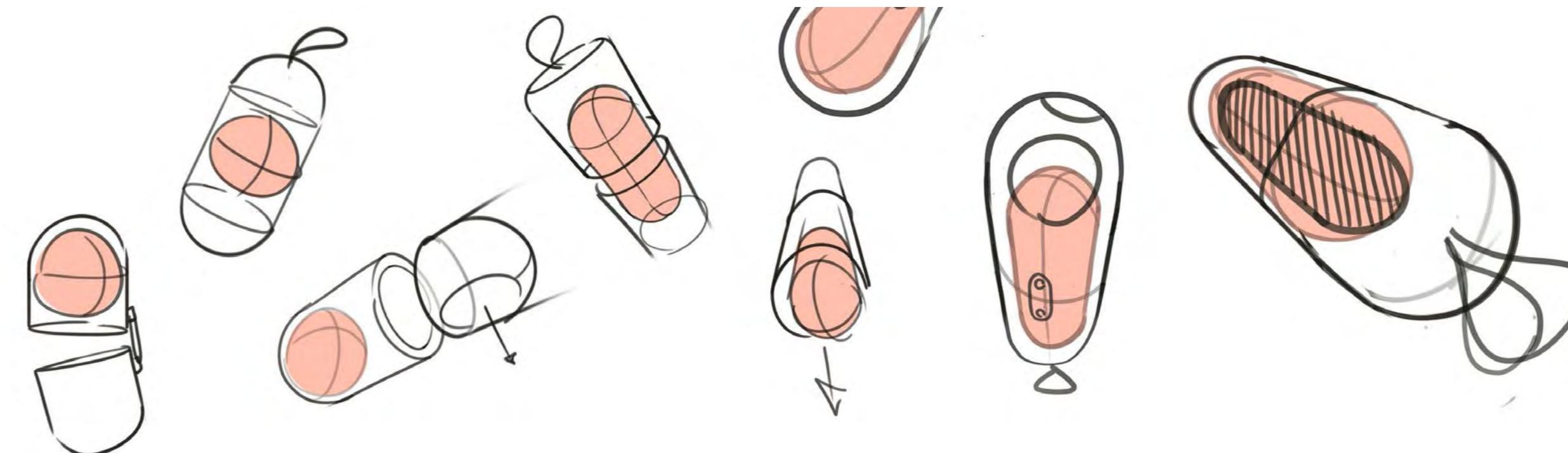
The power source is the core foundation for any device.
For our gear **we imagined a new one from the ground up.**



Desired tank module volume $1'' \times 3'' \times 12'' = 360 \text{ mL}$
 Tank volume capacity delta recharging
 $60 \text{ psi from } 36 \text{ L} \times \frac{100 \text{ mL}}{L} \times 2 = 1200 \text{ mL} = 1.2 \text{ L}$
 Tank PSI req. when full: $\frac{2.4 \text{ L}}{60 \text{ mL}} \times 75 \text{ psi} = 3000 \text{ psi}$
 Liters of water from functional range (first 50%): 12 L
 0.5L tank standard pump time: 12 min
 Reducing pump stroke/size by factor of 3: $12 \text{ min} \times 3 = 36 \text{ min}$
 60mL tank pump time: $\frac{36 \text{ min}}{0.5 \text{ L}} = 72 \text{ min}$
 60mL tank pump time: $\frac{72 \text{ min}}{0.06 \text{ L}} = 4.32 \text{ min}$
 Effectively less than a minute/day of water output: $\frac{4.32 \text{ min}}{6} = 0.72 \text{ min}$
 Desired water Volume: $(6 \text{ days}) 6 \times 2 \text{ L} = 12 \text{ L}$
 Purifier pneumatic chamber volume for .5L purification: 100 mL
 Purifier membrane surface area (in^2): 15
 Membrane required PSI: 5 psi
 Required pneumatic chamber PSI: $5 \text{ psi} \times 15 = 75 \text{ psi}$
 $2 \frac{\text{watts}}{\text{watts}} \times 5 \frac{\text{volts}}{\text{volts}}$
continuous current available
 from $2.5 @ 10.8 \text{ v} (4 \times 10 \text{ F} 2.7)$ for 20 sec : $\left(\frac{4}{5}\right) \text{ amps} = 1.6 \text{ amps}$
Current available
 from $10 \text{ F} @ 2.7$ for 1 hr of continuous use: $\left(\frac{400 \text{ mA}}{3}\right) = 133.3 \text{ mA}$
 Every 3 minutes for 10 sec = 5% duty cycle: $\frac{60}{60} = 1 \text{ cycle}$
 $\left(\frac{3}{60}\right) = 20 \times \text{more power/hr: } 2.2 \text{ mA} \times 20 = 44.4 \text{ mA}$

Leveraging proven technology

We created an unexpected solution using portable air tanks as a primary source

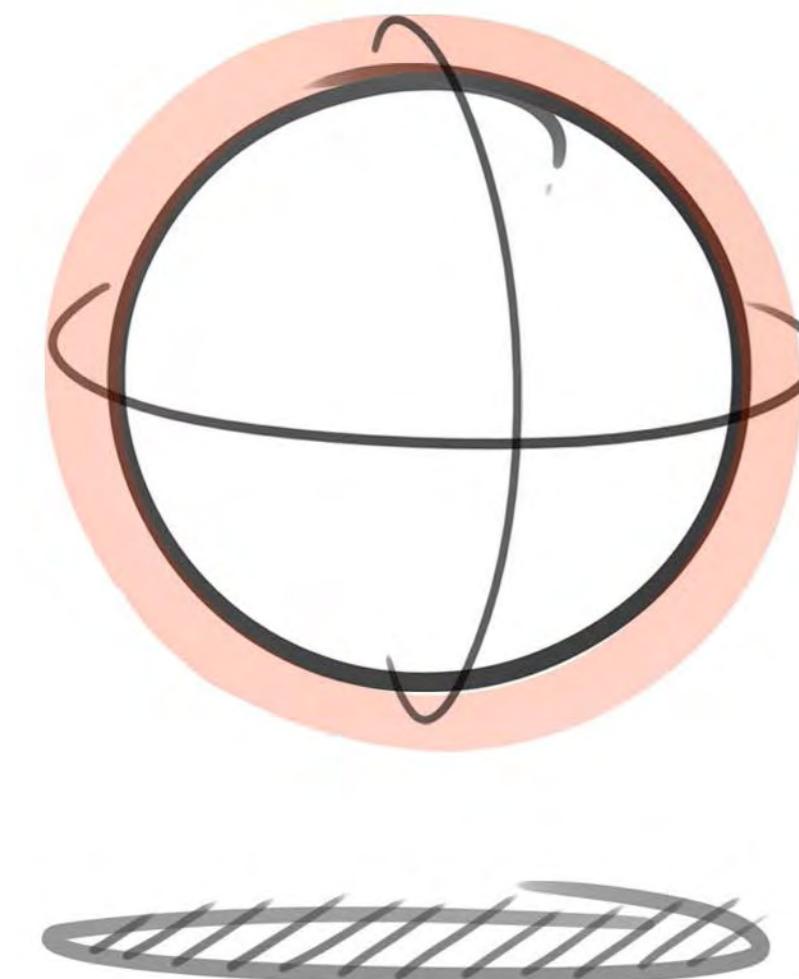


Avalanche inflation pack

AIR TANK FORM OPTIONS

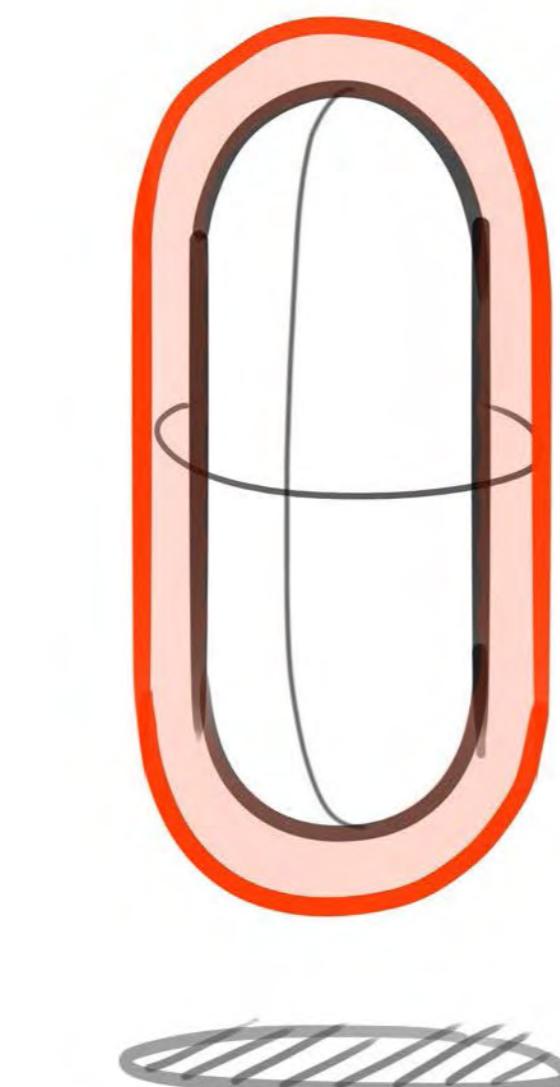
*PURE GEOMETRY

SPHERE

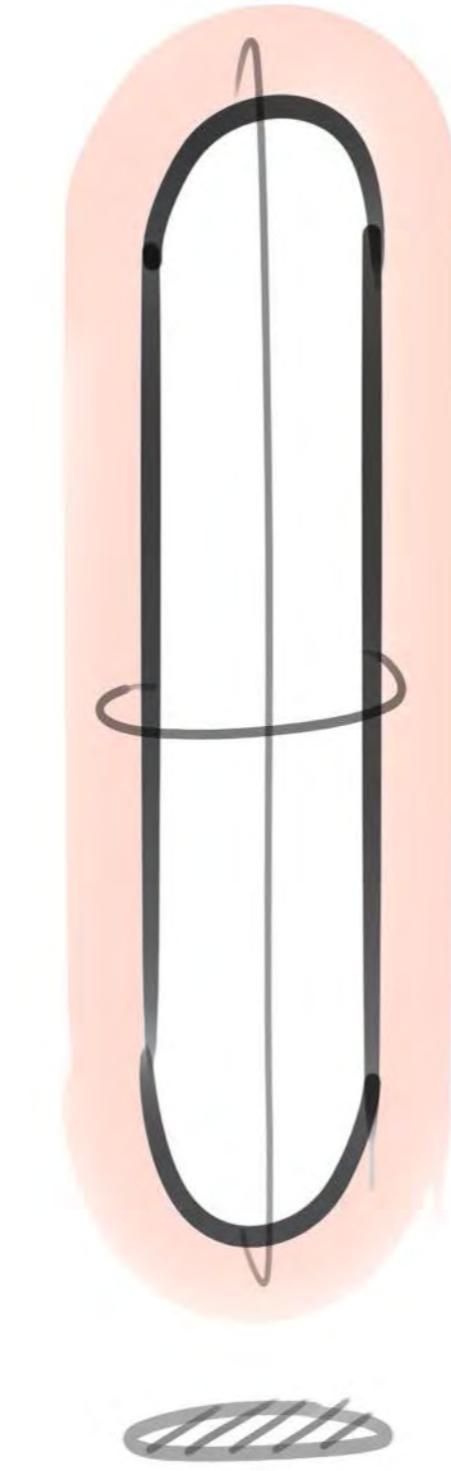


VOLUME
TOO LARGE

*PILL

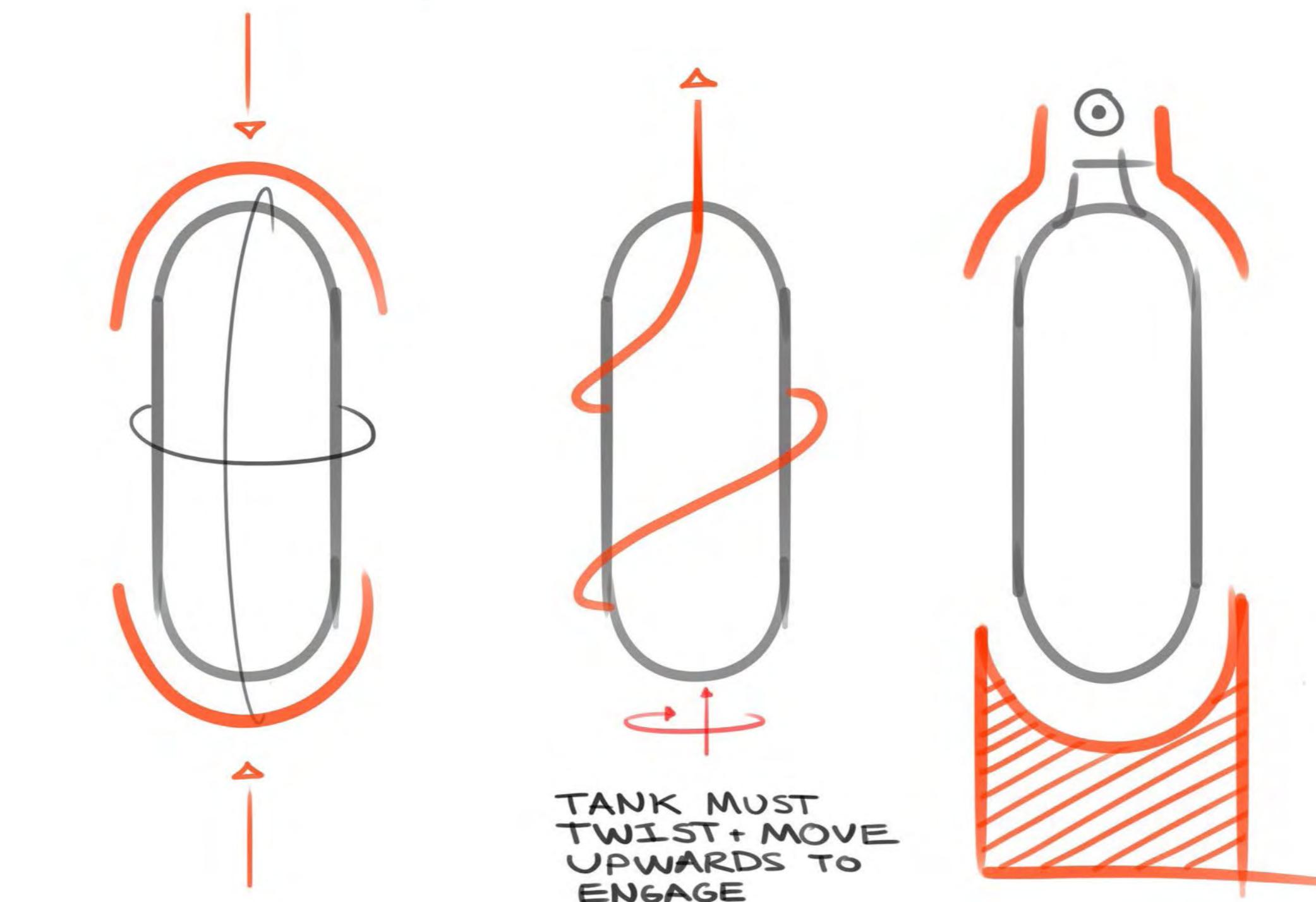


MOST
PORTABLE
+ ERGONOMIC



CAN'T FIT
IN POCKET

PHYSICS + ENGINEERING CONSTRAINTS



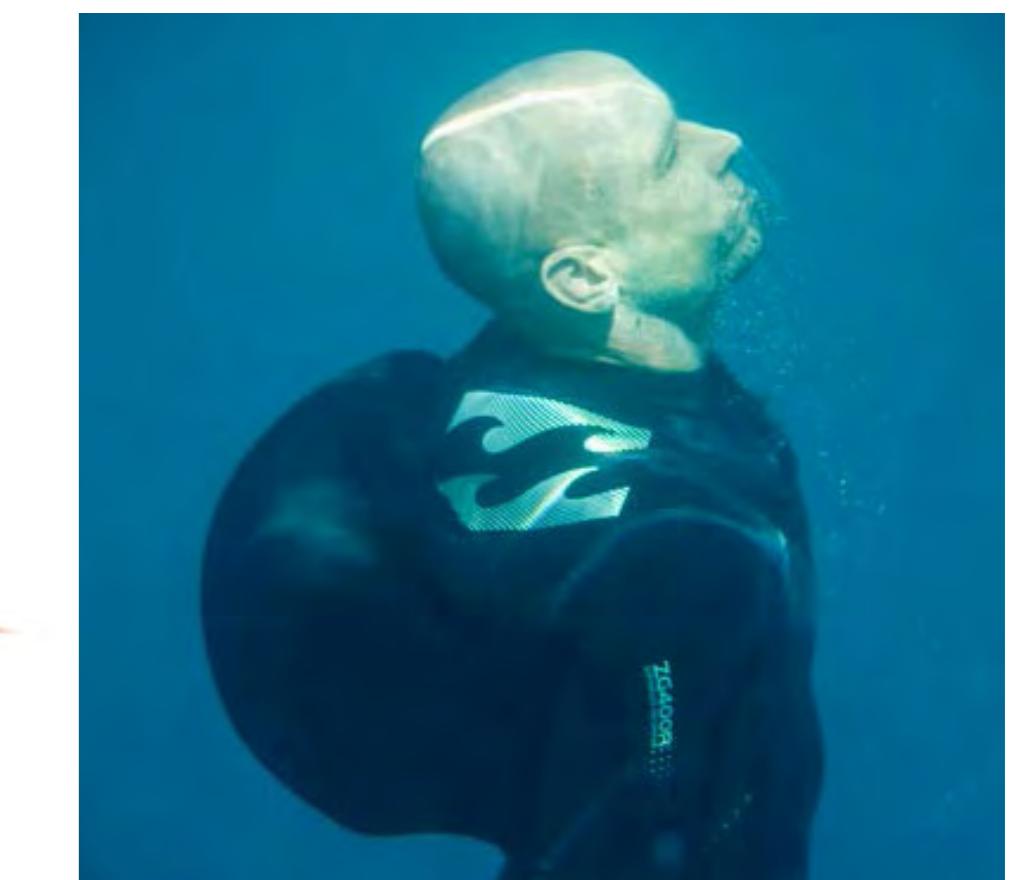
TANK MUST
TWIST + MOVE
UPWARDS TO
ENGAGE

OUTWARD FORCE
MUST BE CONTAINED

CURVATURE
MUST BE
CONTINUOUS



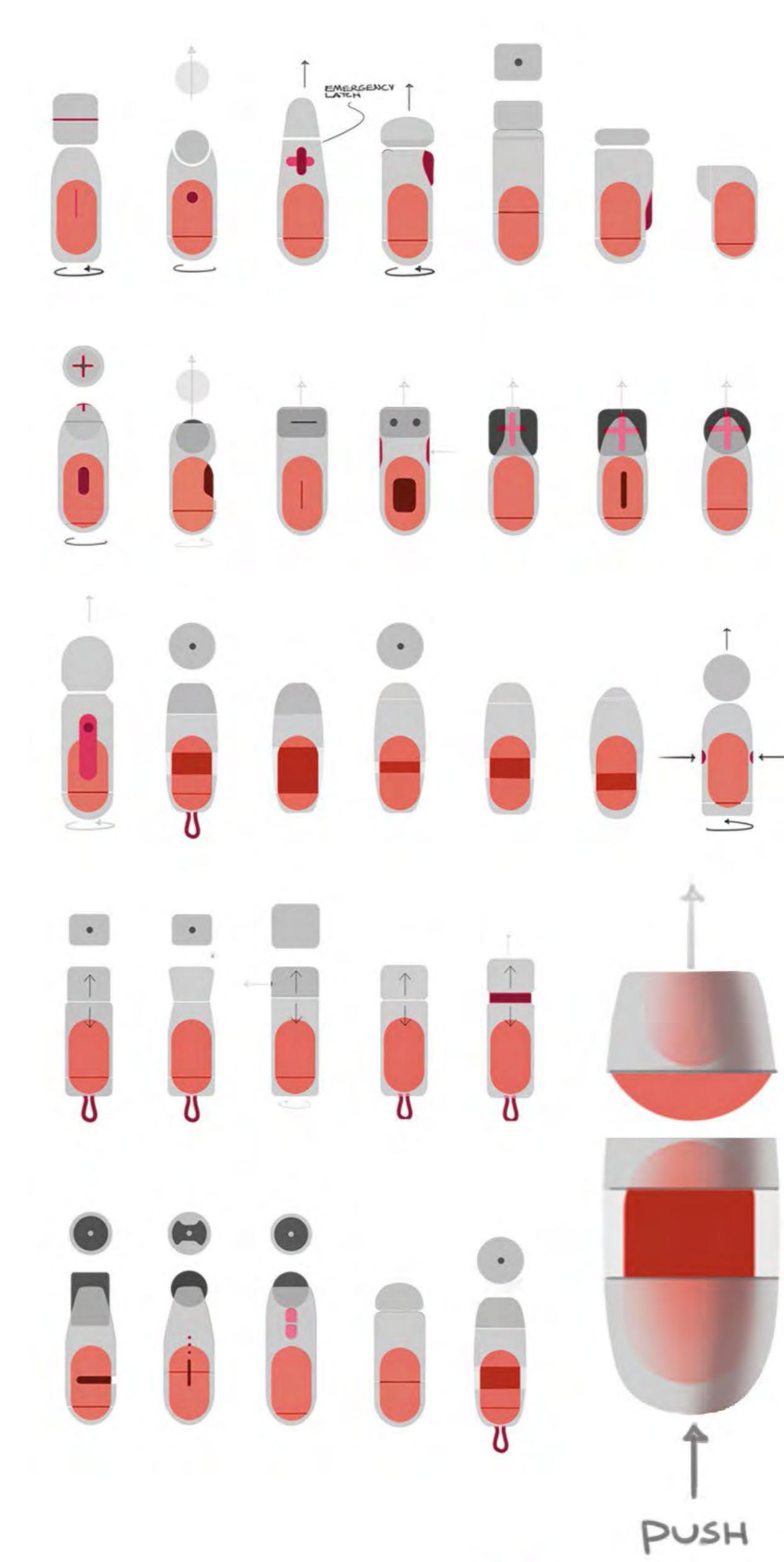
Emergency inflation technology



Billabong inflatable wetsuit



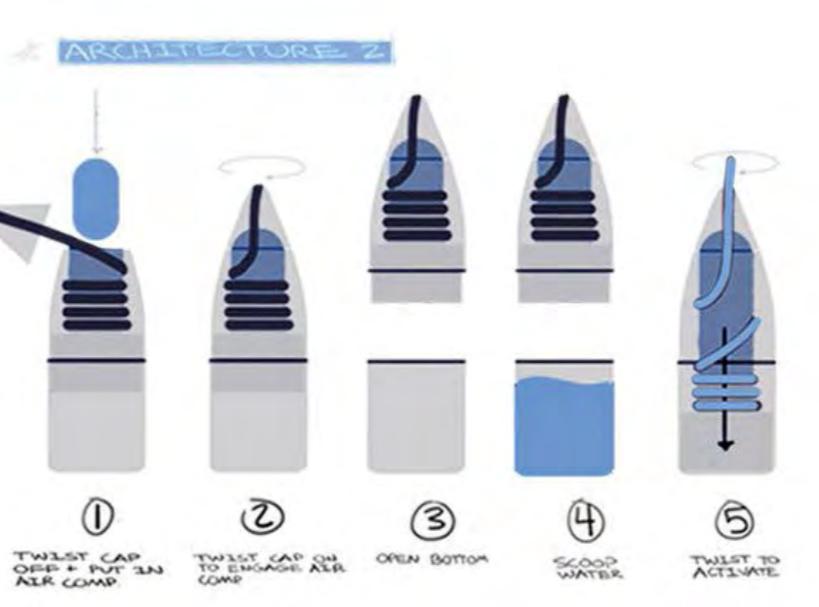
AIR TANK ENTRY



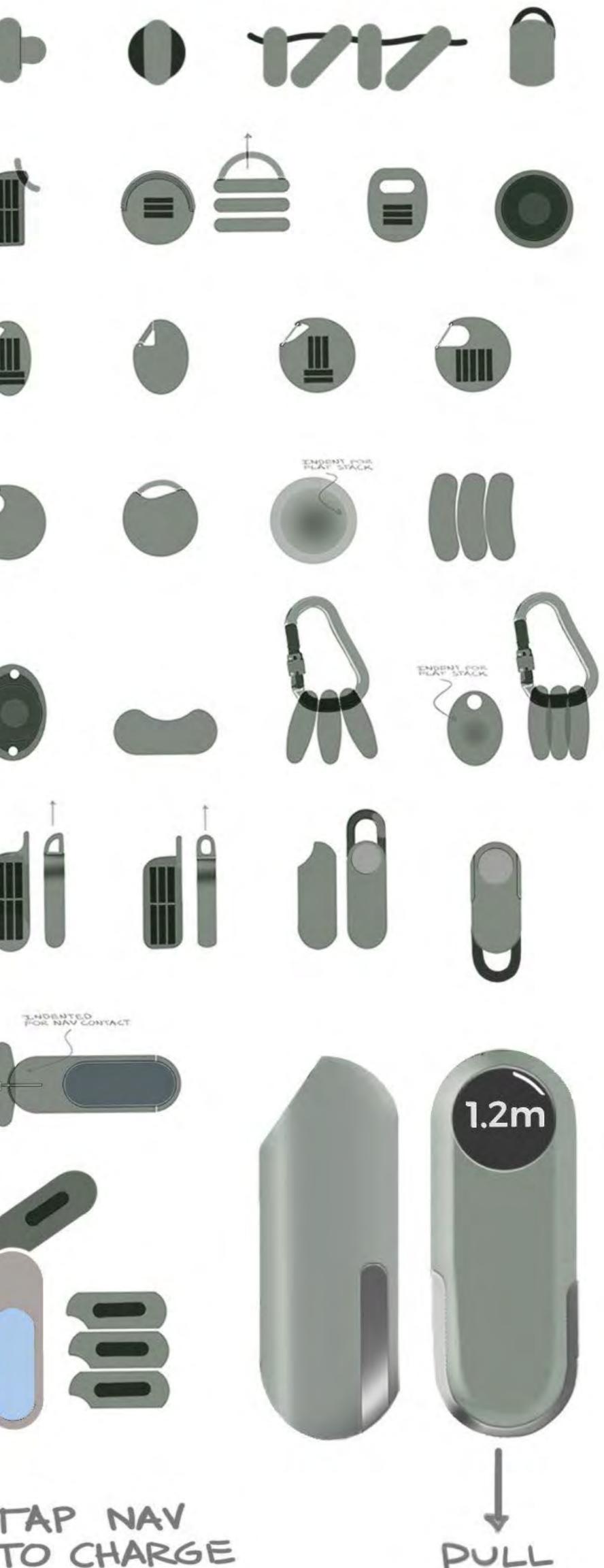
ARCHITECTURE 1



ARCHITECTURE 1



ARCHITECTURE 2



TAP TO CHARGE

air







air

Grow outdoors confidently

Brand Integrity

Our outdoor adventure brand helps intermediate outdoor enthusiasts seek discovery and growth in the outdoors by providing reliable tools that bolster mental security during stressful turning points. This allows them to step up to new challenges, unlike existing tools that are too tactical, complex, distracting and expensive.

Design Intent

Our products are designed to be durable, clean, approachable, and intuitive. With simple UI, hidden tech, and intentional features, our products allow an uninterrupted experience for users to have a safe outdoor peak experience.

Color palette



Primary Colors



Logo Development



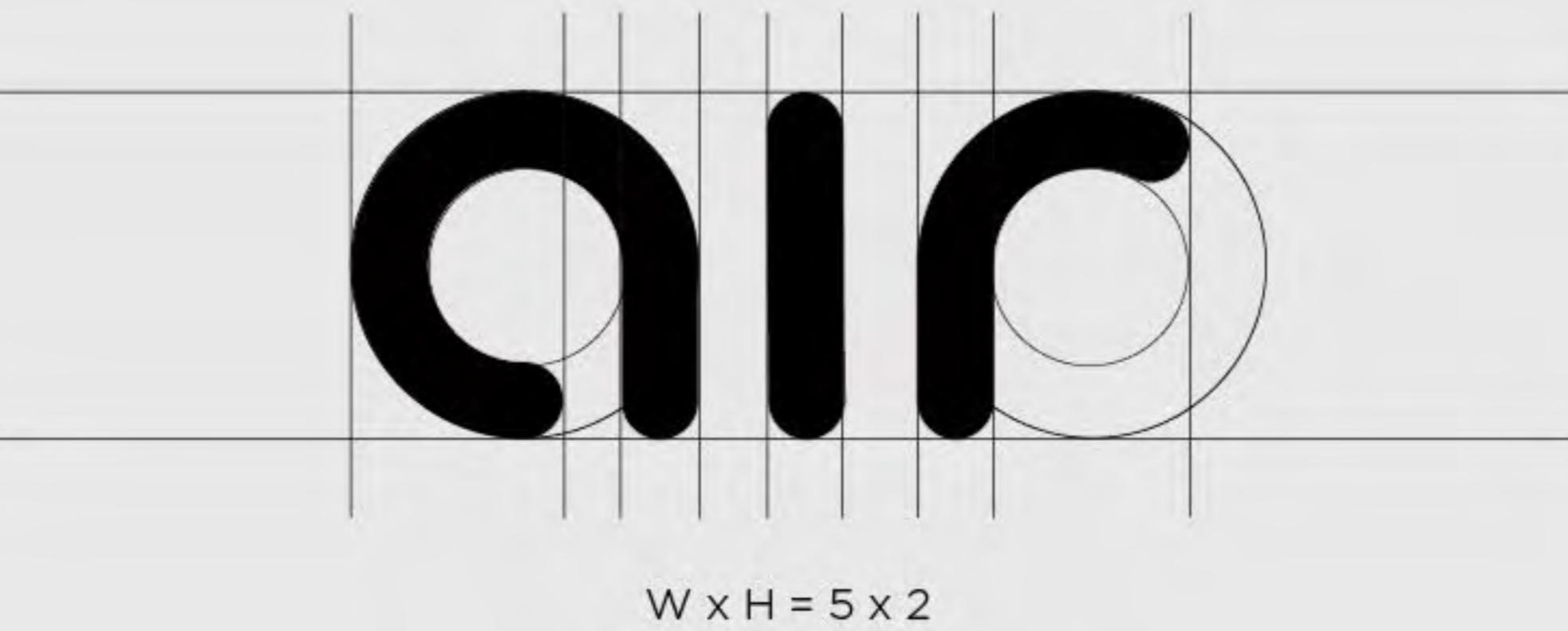
Action Imagery

The A1R logo should be used in the bottom left corner of a full bleed photo, specifically where it is located in this guideline.



Secondary Colors

Logograph



Typeface

Gotham Thin

Gotham Light

AaBbCc
AaBbCc

AaBbCc
AaBbCc

Gotham Book

Gotham Black

AaBbCc
AaBbCc

AaBbCc
AaBbCc

Logo and Photography

The A1R logo is commonly placed over full-bleed photos. There should always be enough contrast in value between the logo and the background image. If the photo is dark, the logo should reverse proportionally to white.

Web and Product Usage

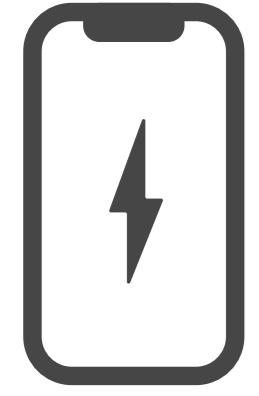
The logo with the tagline should be used when displayed alone online, including any third party sites. When featured on a product, A1R can be shown without the tagline.



air MODULE

Your new battery. Powered by air.





Reliability

Modern devices and their batteries have many limitations that can create panic

Can't charge anywhere or anytime

Not temperature resistant

Not water or weather proof

Degrade over time

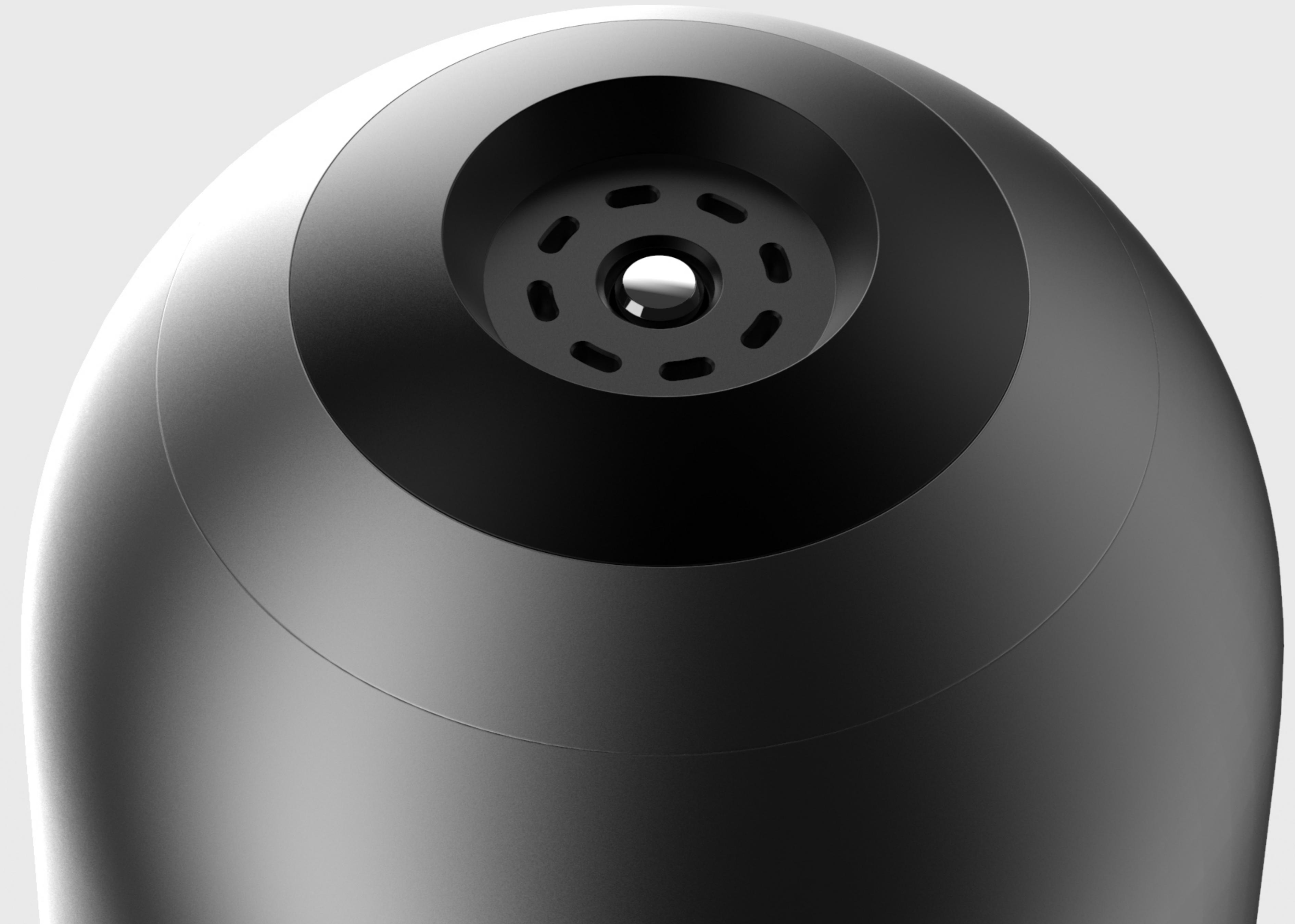
Not recyclable

Fragile

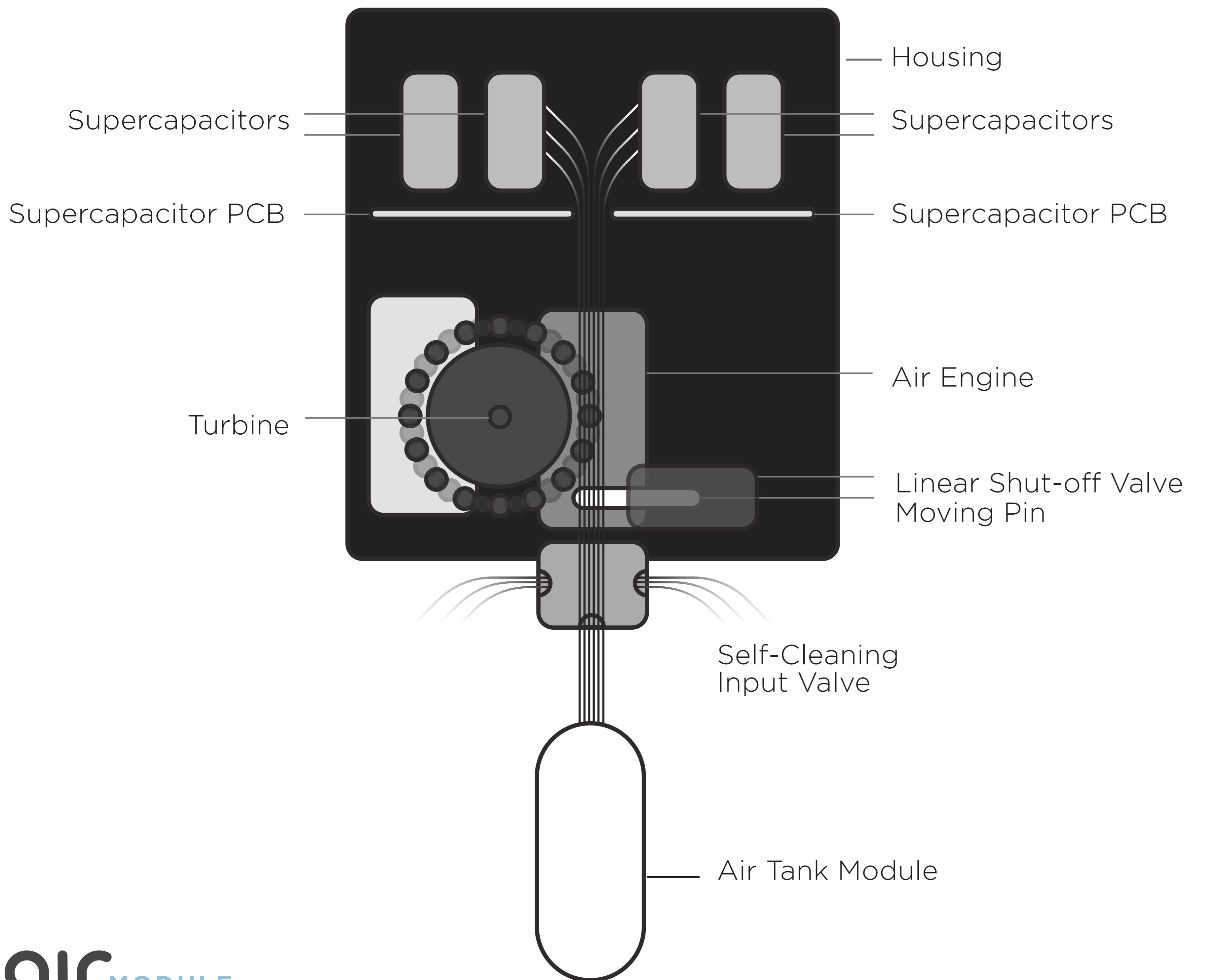


Power your adventure

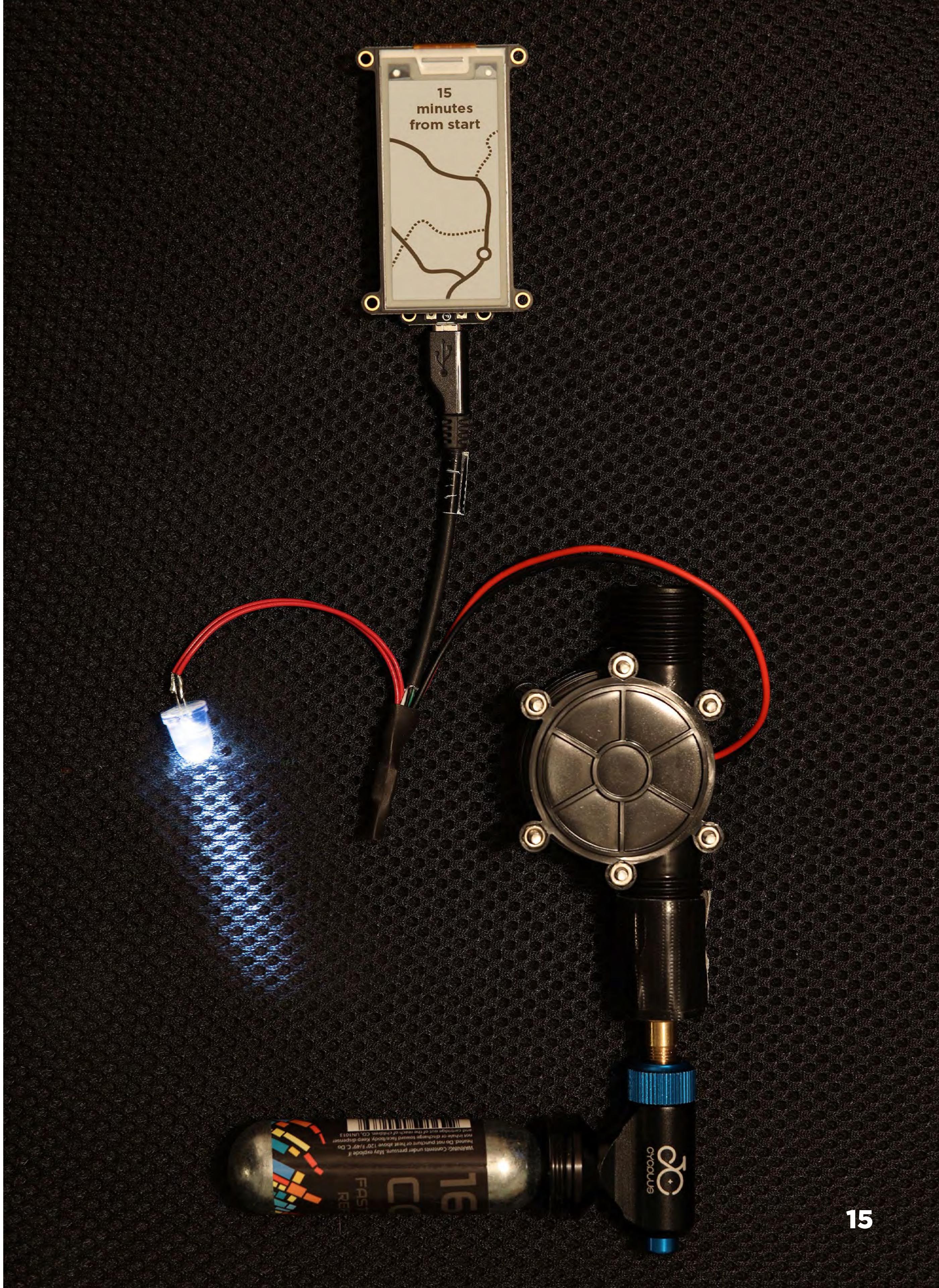
The A1R Module uses 3000 psi compressed air to power devices through both electrical and mechanical potential. It's a much more reliable and sustainable solution than batteries because it's durable, unaffected by weather or temperature, and 100% recyclable



Air power engine system



air
MODULE







Pump to recharge anytime

Get weeks of power off the grid

60 seconds of pumping equals

Full headlamp charge or 1/2 phone charge

24 hours of communication

3 days of navigation

5 days of freshwater purification

1 day of saltwater purification



air
MODULE

Your new battery. Powered by air.



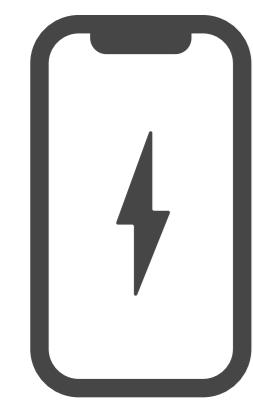
This power source fuels 5 new inventions

These affordable, durable, and sustainable tools are designed to be clean, approachable, and intuitive. Simple UI, hidden tech, and intentional features.



**air
POWERBANK**

Reliable power anywhere



Extending Reliability

Other devices and existing gear all run on batteries

Our solution needs to accommodate their gear using the A1R Module power source



Bridging our power source to existing gear

LED Array
Dual USB-C Ports
Accessory Power Output









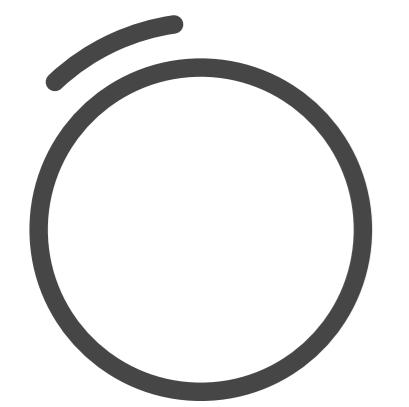
air
POWERBANK

Reliable power anywhere



air NAVIGATOR

Never lose your way



Orientation

Smartphones are unreliable as navigators

Durability

Battery life

Gps signal issues

Distracting



Explore without limitation

Keeps track of your location to provide in context directions.

Whether it's a fork in your path or you're completely lost off trail, you can always find your way. A full color E-Ink display embedded under transparent rubber for durability.





Liz gets lost while looking for a waterfall she hears nearby

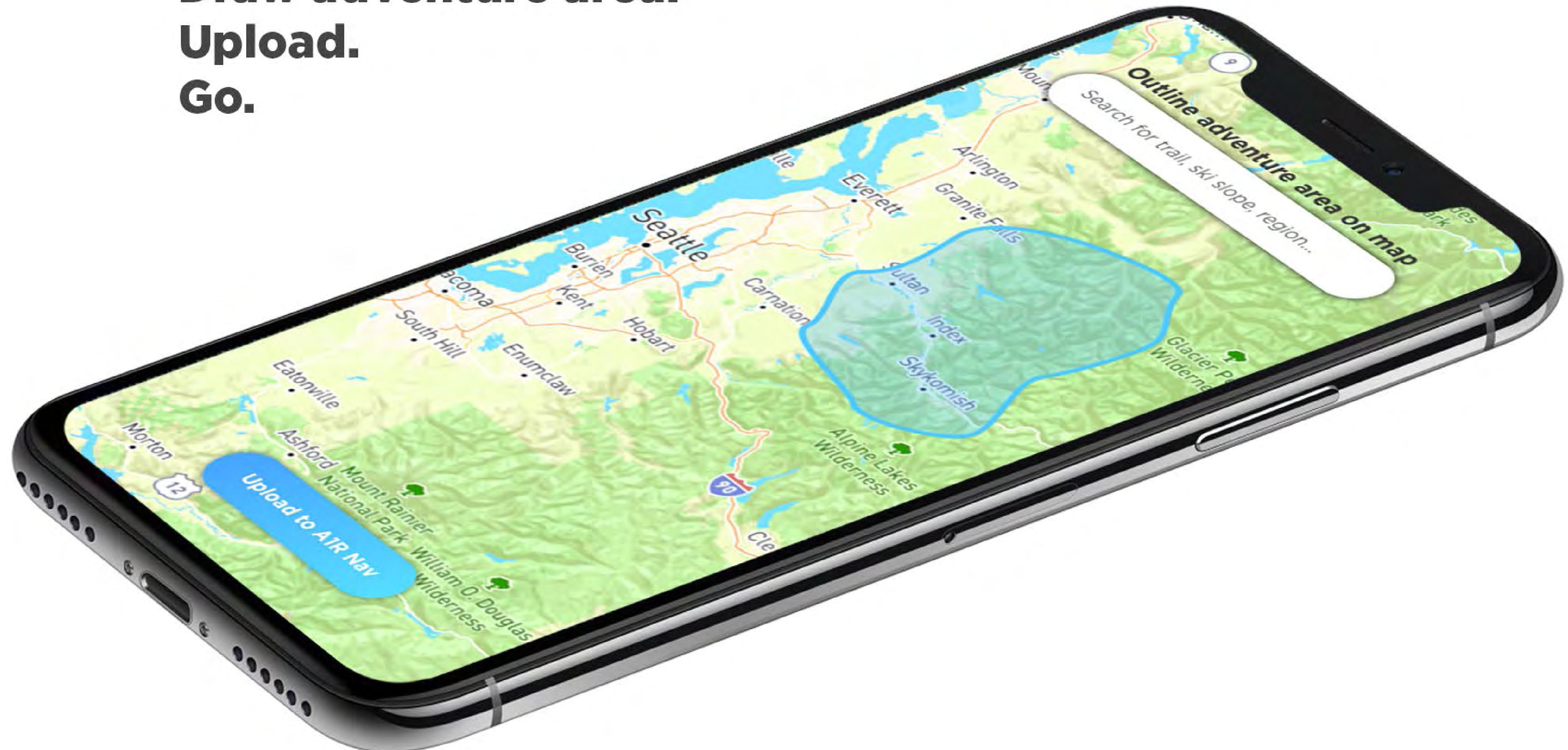
She takes out her A1R Navigator to help her find the way back to the trail

The Navigator uses it's preloaded maps to lead Liz to the waterfall

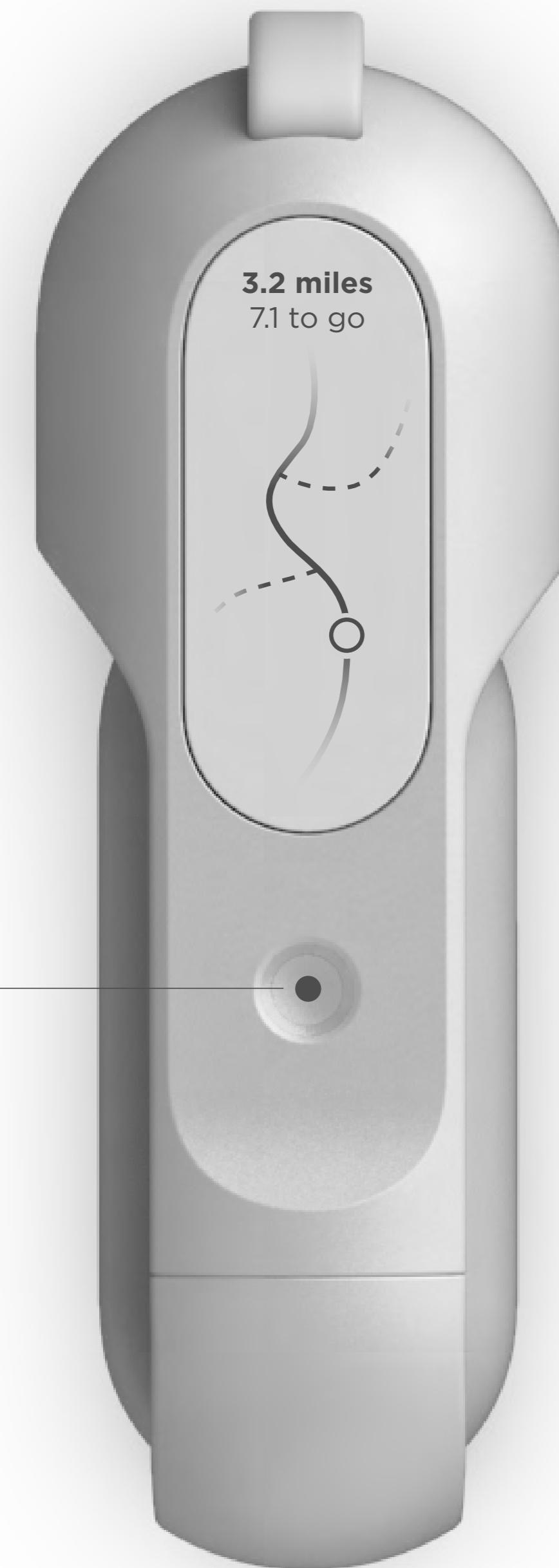




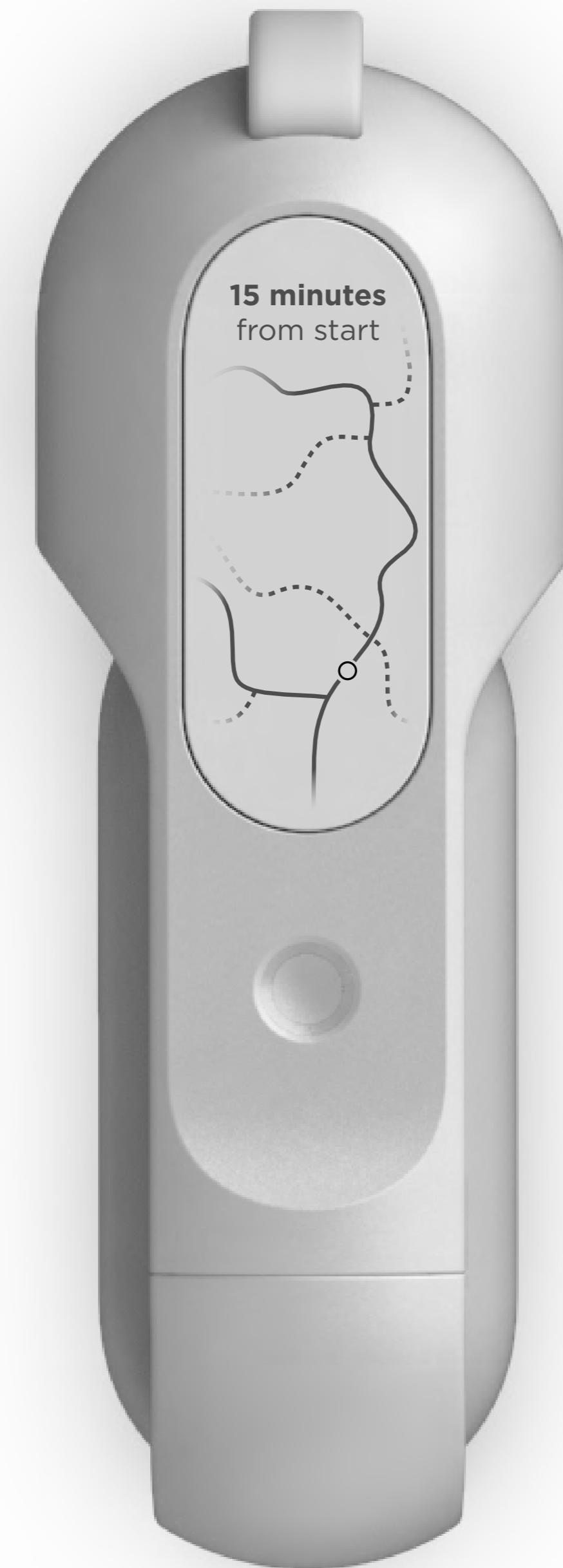
**Draw adventure area.
Upload.
Go.**



NAVIGATION



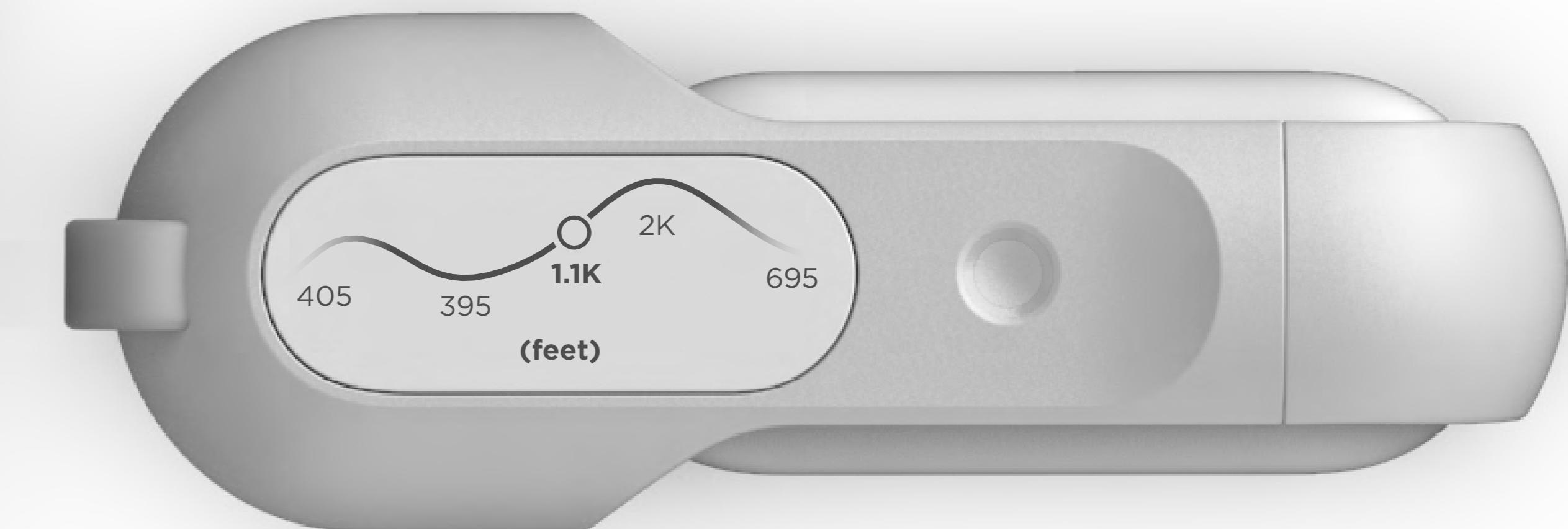
OVERVIEW



BACKTRACKING



ELEVATION



Switch modes
Capacitive switch

AIR NAVIGATOR

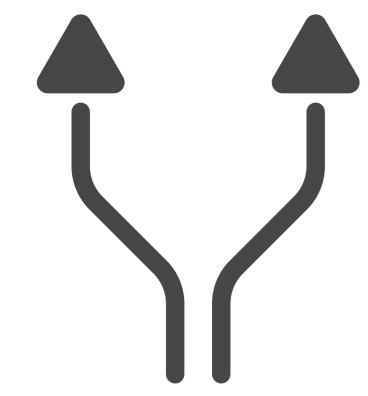
Never lose your way





air TRACKER

Never lose your group



Separation

Separating from friends can become dangerous. Devices that try solve for this miss the mark.

Large size reflects constant usage of power
Require smartphone to use
Too complex



Track friends when lost

A full color E-Ink display, which is embedded under transparent rubber for durability, allows the user to find friends when lost. Powered by a supercapacitor, a GPS chip provides data to the Navigator through an antenna array and ultra low power transciever.





Liz realizes she has fallen behind her group, which is getting increasingly farther away.

She peeks at her Tracker to see which direction and how far her group has traveled.

Liz is now able to easily locate and catch up to her friends.



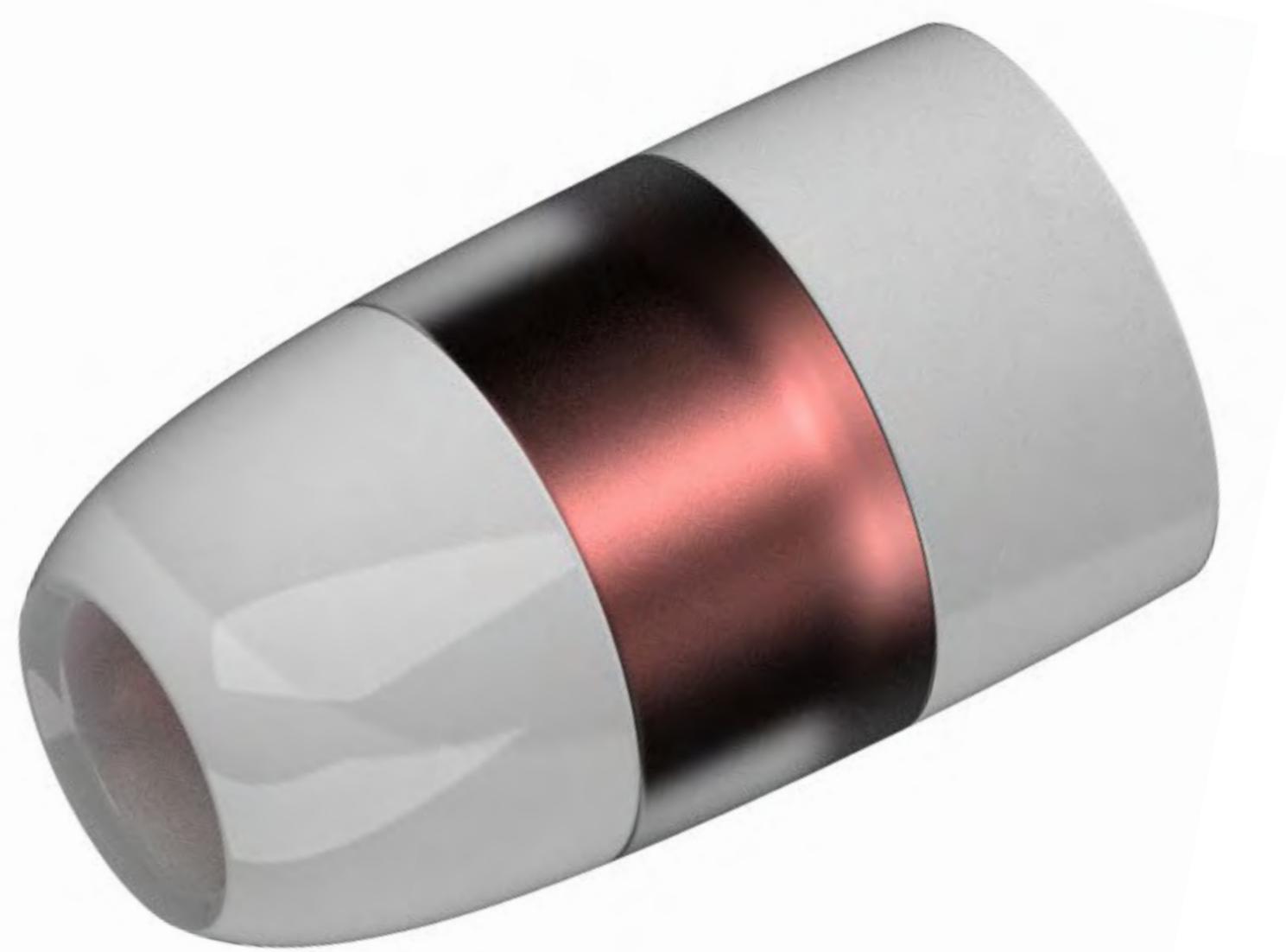
Tap to charge instantly

Supercapacitors in the tracker recharge in seconds

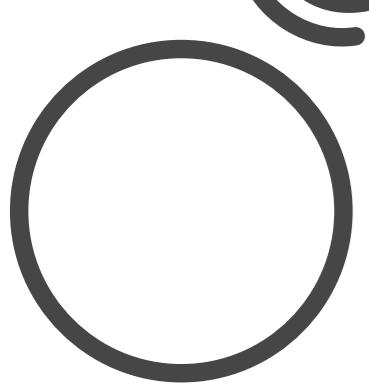


air TRACKER

Never lose your group



air
BEACON
Get help anywhere



Communication

Satellite phones are too complex and expensive for most users

- Cost
- Distracting
- Complexity
- Too many features
- Battery vulnerable to cold
- Promotes hyperconnectivity



Combating panic with simplicity

The A1R Beacon inflates a balloon using a pre-loaded helium module powder coated red to represent emergency. It has a speedform-like design to convey motion. A deploying module carries a cellular radio with initial GPS coordinates to send to first responders.

Deploying module is made from 99% biodegradable materials including activated carbon supercapacitors

Balloon launch module with cellular radio

Helium Tank - Push to inflate balloon



After getting lost and stranded for the night, Liz launches her A1R Beacon as a last resort

GPS acquires launch location

When deploying the A1R Beacon, it grabs your current GPS coordinates for later use



Drifts until reaching cell service

Once the A1R Beacon finds cell service, it communicates your launch coordinates to Search and Rescue, as well as friends and family



A close-up photograph of a person's hand holding a small, white, cylindrical device with a red light on top. The device is identified as an 'Air Beacon'. The background is a dark, out-of-focus forest with sunlight filtering through the leaves.

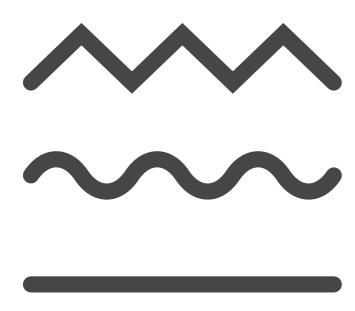
air
BEACON

Get help anywhere



air
WATER PURIFIER

Purify water anywhere



Versatility

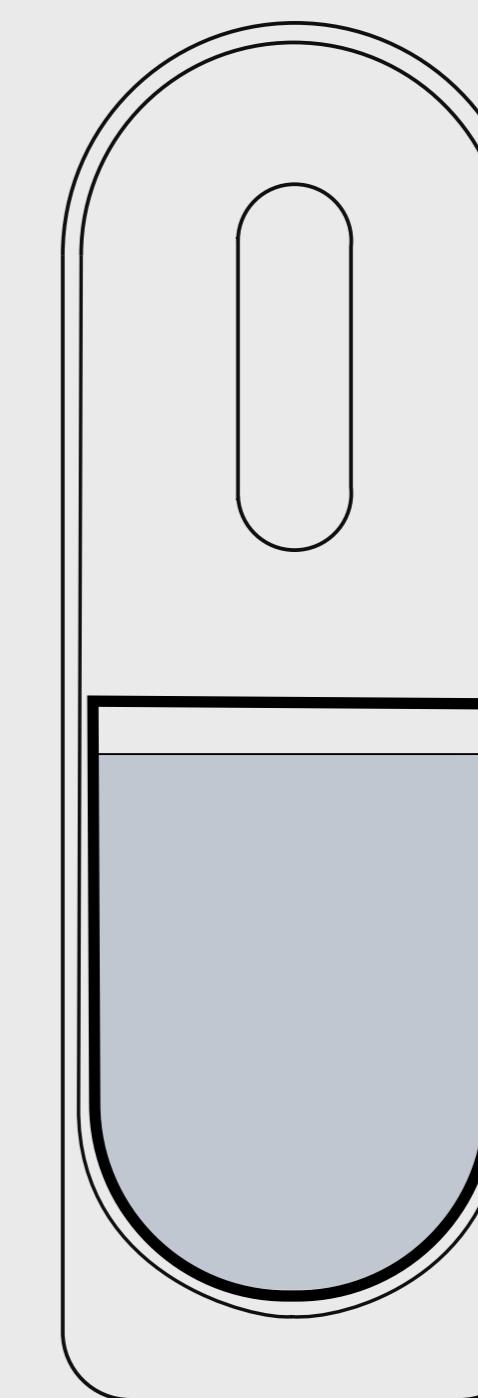
Current water purifiers don't work in every climate

Can't purify snow
Can't purify salt water
Easily breakable from freezing
Require physical effort every use
Filter replacement needed often

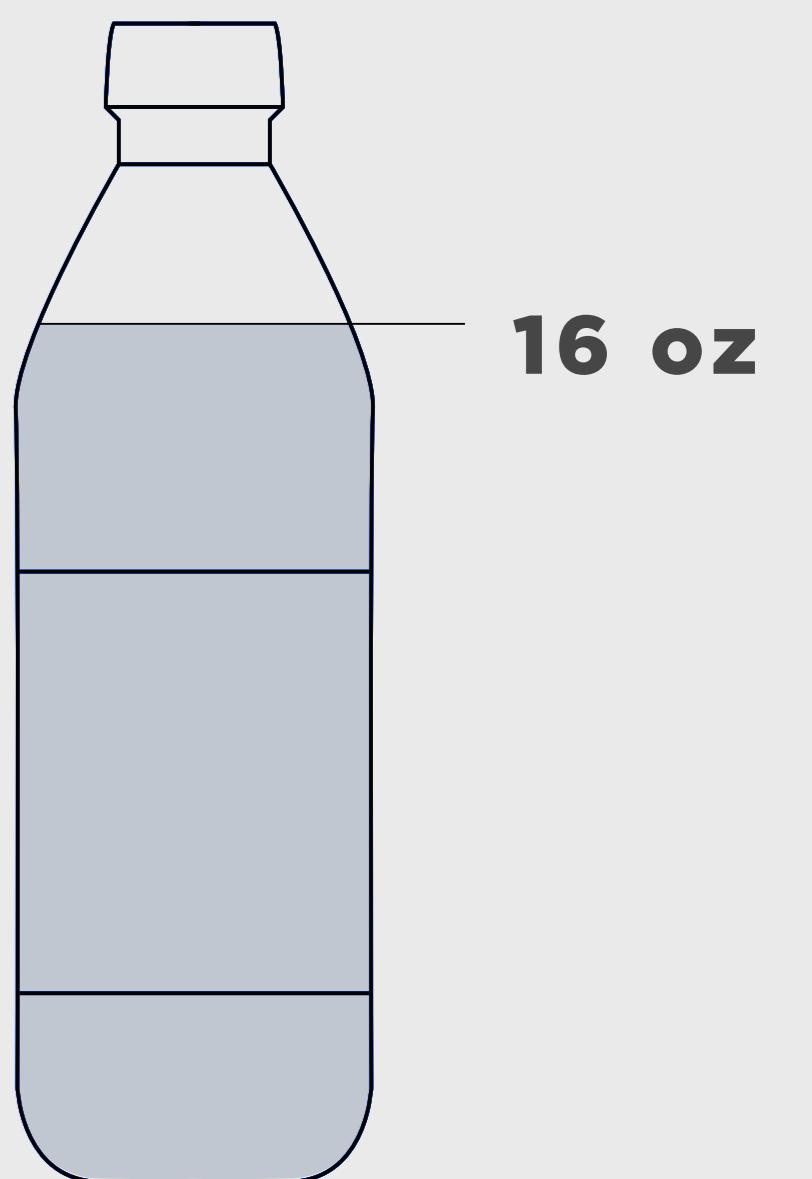




A1R



Water
Bottle



Purify snow. Purify salt water.

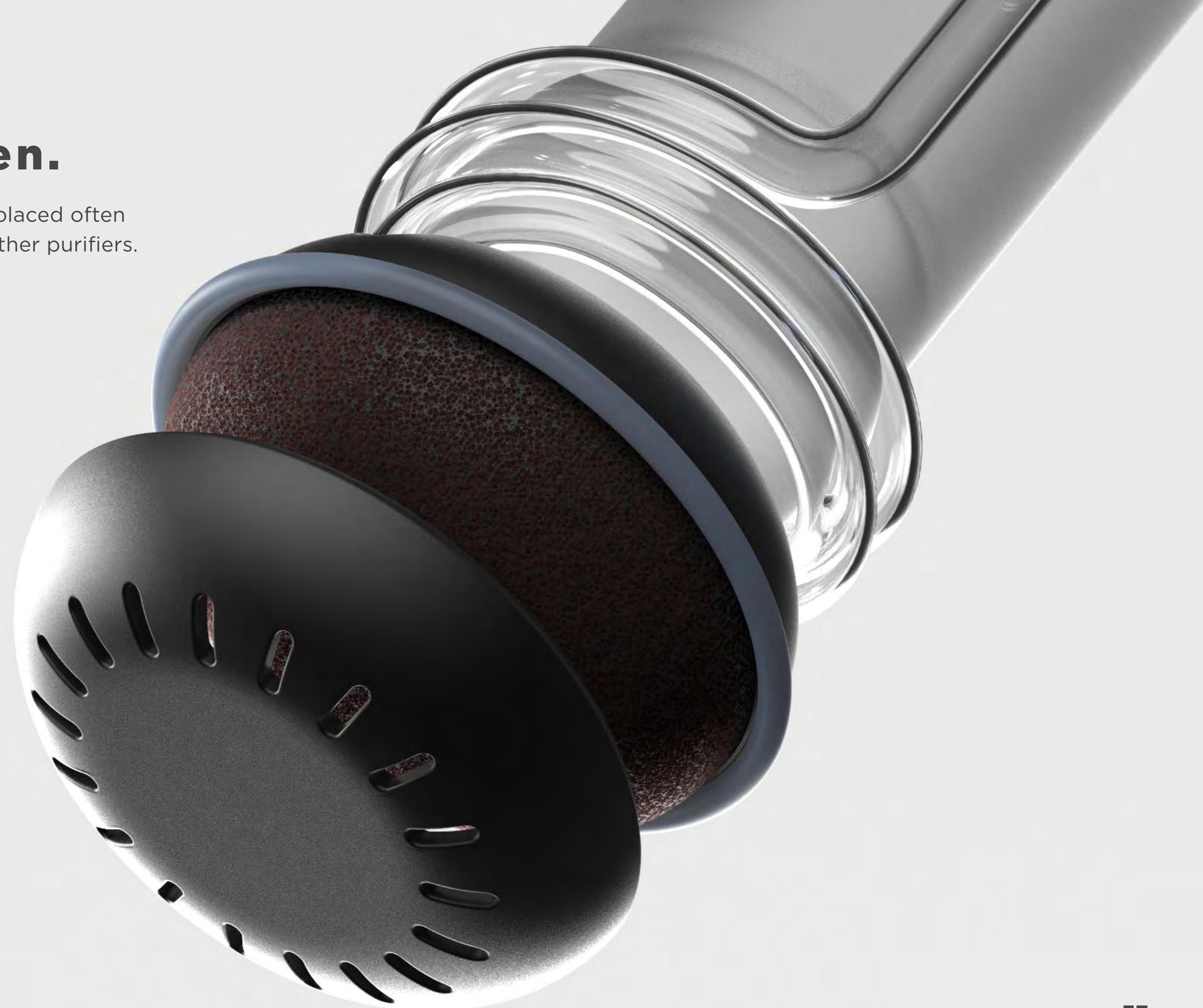
Internal heating coils in the base are heated by the A1R power bank to melt snow.

Composite bands hold tension up to 1000 psi for overcoming the osmotic pressure of salt water.



Purifies for years. Won't break when frozen.

A new proprietary purifying media doesn't need to be replaced often and doesn't break when freezing during cold nights like other purifiers.



AIR WATER PURIFIER

Purify water anywhere





air





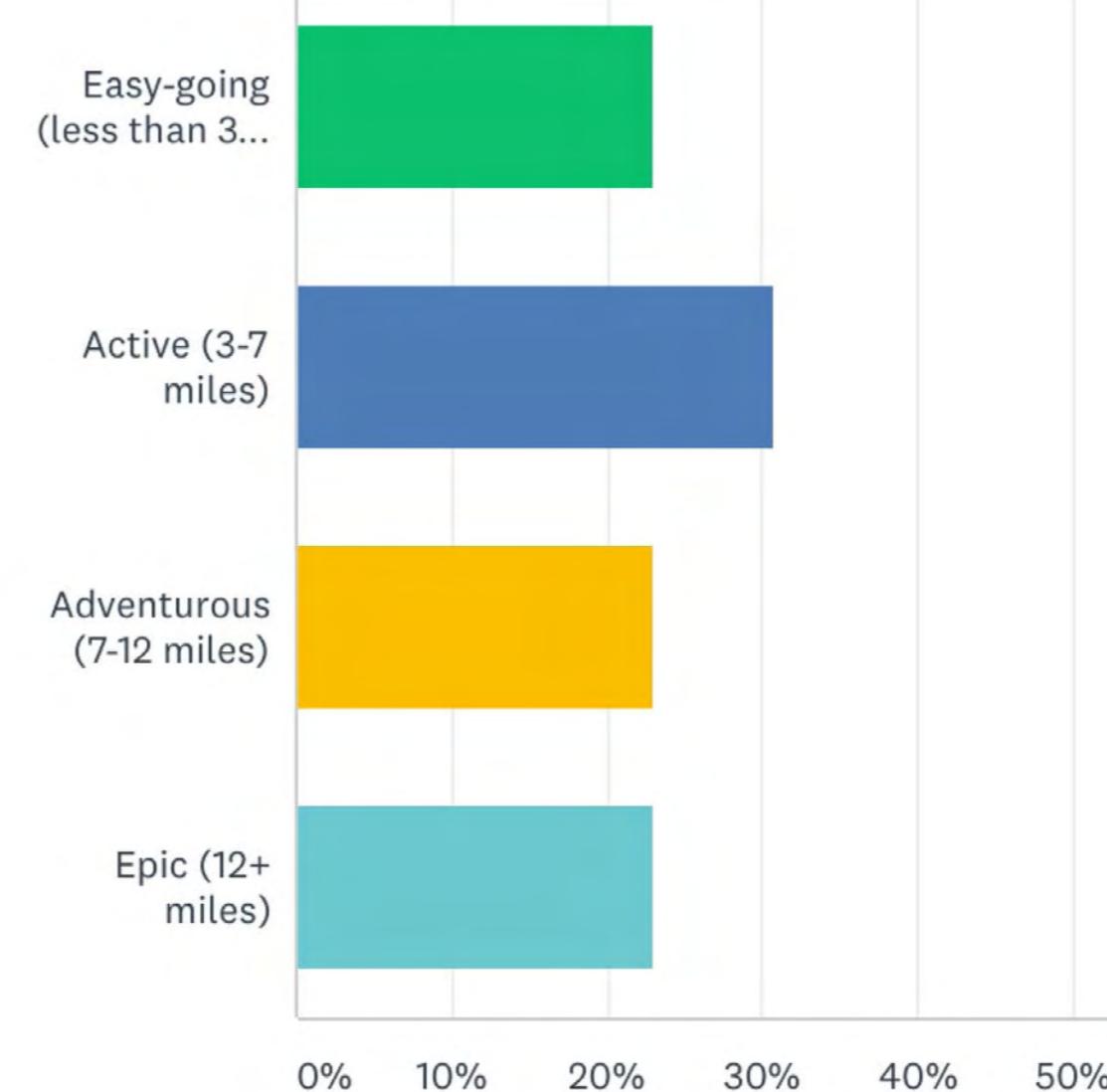
air

Supporting peace of mind by solving for panic

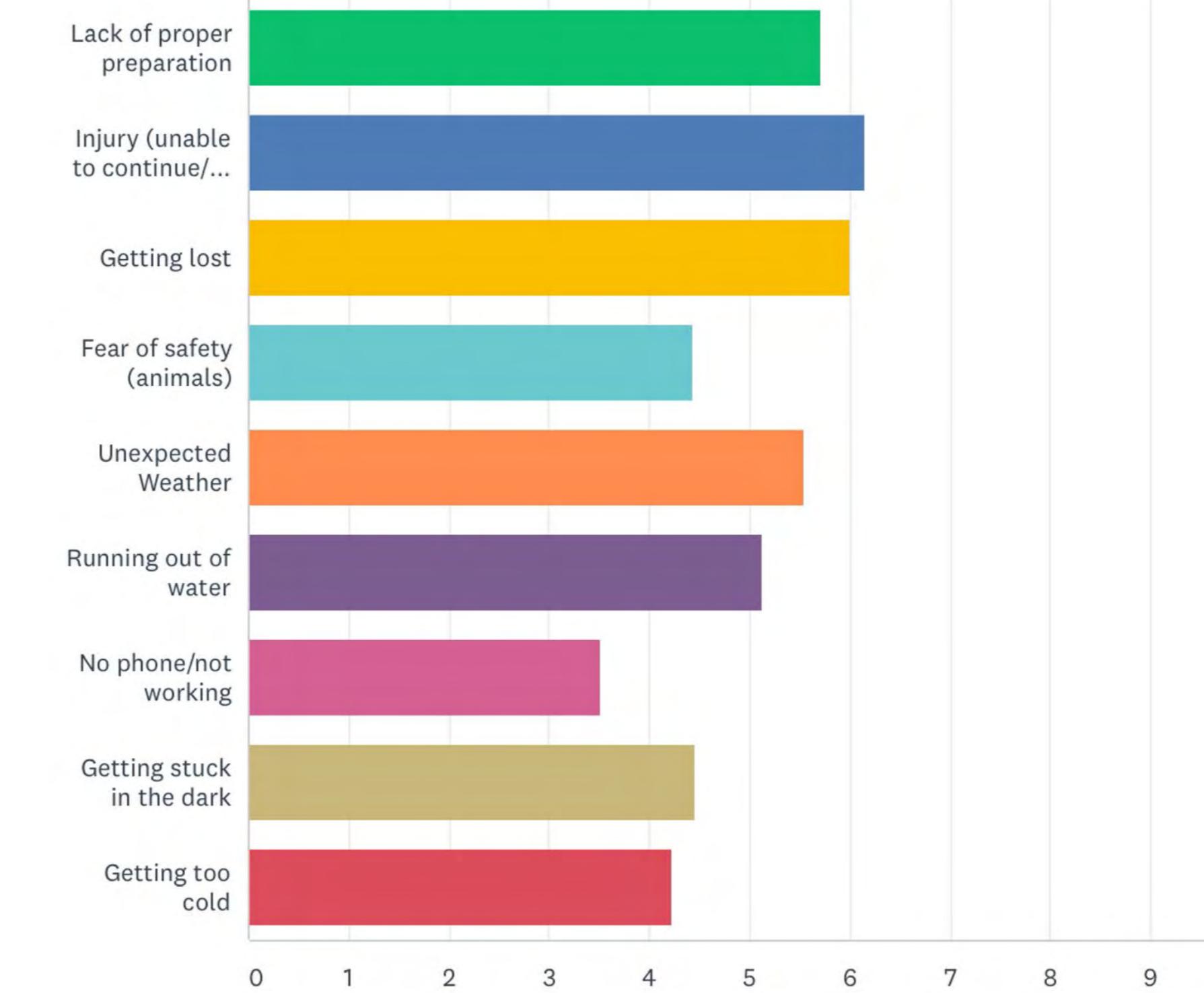
LE APPENDIX

USER SURVEY REACH

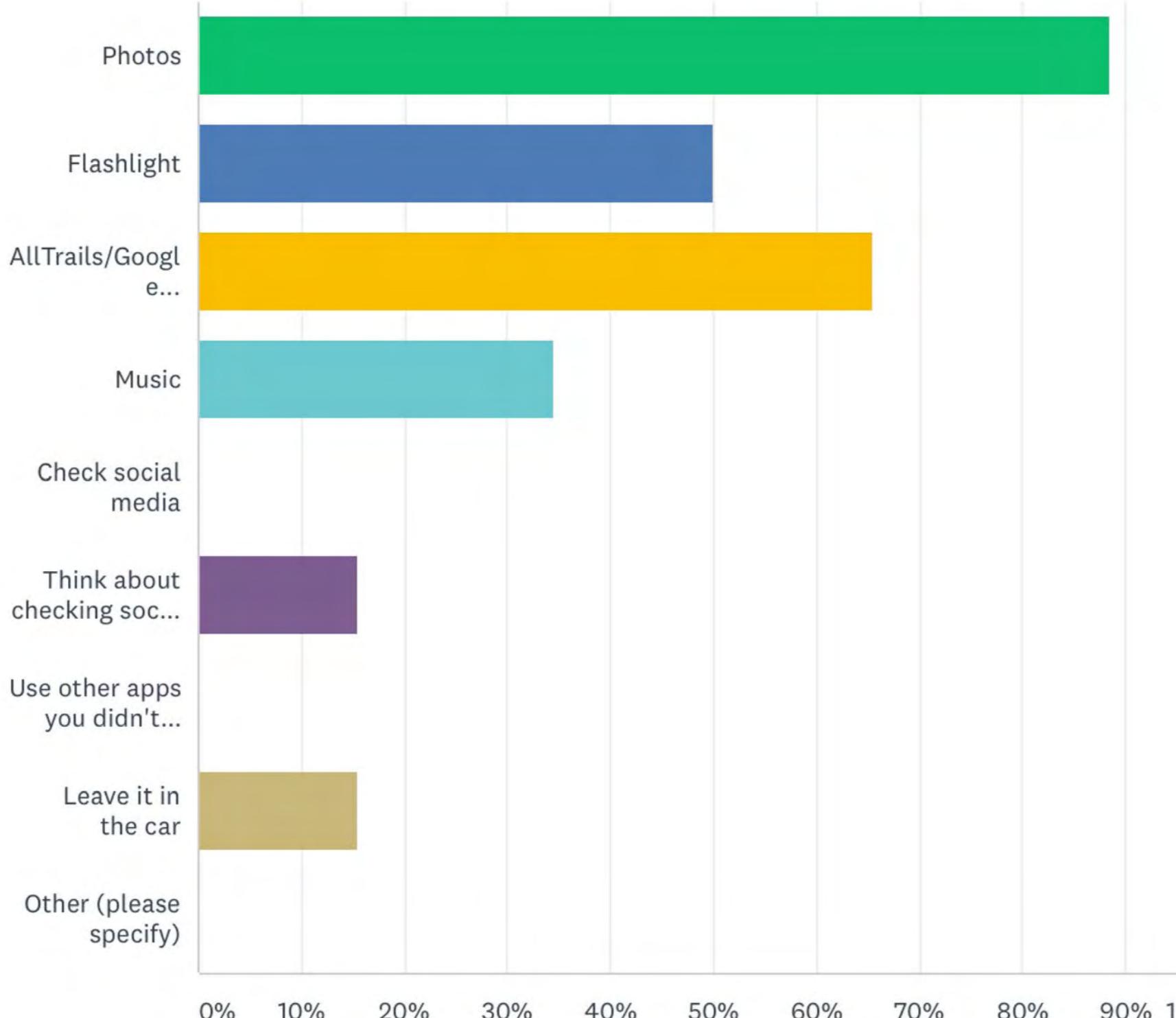
ACTIVITY LEVEL



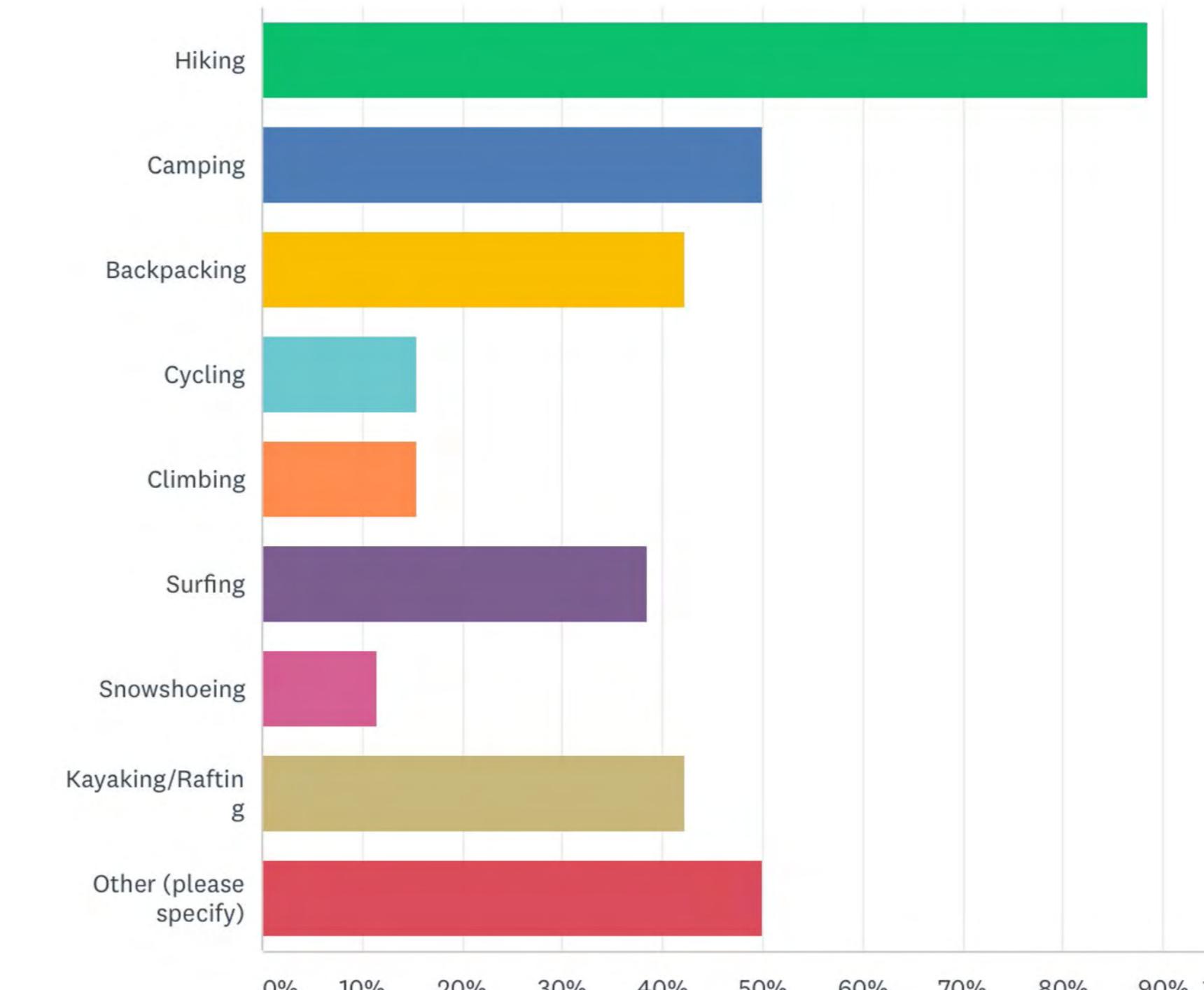
"WHAT DO YOU FEAR GOING WRONG WHEN EXPLORING THE OUTDOORS?"



"WHAT DO YOU USE YOUR SMARTPHONE FOR OUTDOORS?"



OUTDOOR ACTIVITIES



OUTDOOR MARKET OPPORTUNITY GAP



BRANDING

COMPANY

Our outdoor adventure brand will seize the opportunity to meet the usability needs of recreational outdoor enthusiasts who seek discovery and growth in the outdoors, providing reliable tools that bolster mental security during stressful turning points. Our brand will design durable, clean, approachable, and intuitive products.

COMPETITION

Garmin attracts customers because of its reliability. Apple attracts customers because of its usability. Our brand can combine reliability and usability to bridge this gap. There is currently no competitor that is a hybrid between tech and lifestyle, creating a large product opportunity gap in the market.

POV POSITION

We will make our customer win with extreme durability, simple UI, hidden tech, and intentional features. Our products allow an uninterrupted experience for users to have a safe outdoor peak experience. We bolster mental security, encouraging the user to step up to new challenges by making the stretch zones more accessible.

CUSTOMER

We aim to actively prevent situations while outdoors that induce panic for recreational outdoor enthusiasts. They fear getting lost, running out of water, splitting up confidently, and being left alone without help. They are intimidated by complex devices like satellite phones because of their poor usability and high cost, and they depend entirely on smartphones for navigation and communication.

CULTURE

Experienced outdoor enthusiasts trust the brands they know, and typically pay up for jam-packed Garmin devices. Purely functional, distracting, and poorly designed, and visually outdated tactical tools make up a fragmented outdoor gear landscape that can be intimidating for both casual and new users. The tech industry has bled into the outdoor gear industry, but the smartphone lacks durability and reliability.

Notable process quotes

“It's not the fucking spa”
“If you're fucked you're fucked”
“Dude are we like, insane?”