



hi,
im alexa

im a product designer
dedicated to solving real
human problems through
empathy-driven design

welcome to my portfolio



thank you for the opportunity to share who i am and my design ethos!

my overarching mission is to design for people. listen to them, learn from them, and create with them throughout the process. i believe design should improve real human experiences, responding to needs both seen and unseen. through empathy-driven design and inclusive principles, i strive to build products that go beyond function by cultivating deeper human connection and care in the way we live and interact with the things around us.

for a deeper look into my design process, who I am as a designer, and the projects I'm currently developing, visit my portfolio website, **www.alexahaenel.com**

— Alexa Haenel

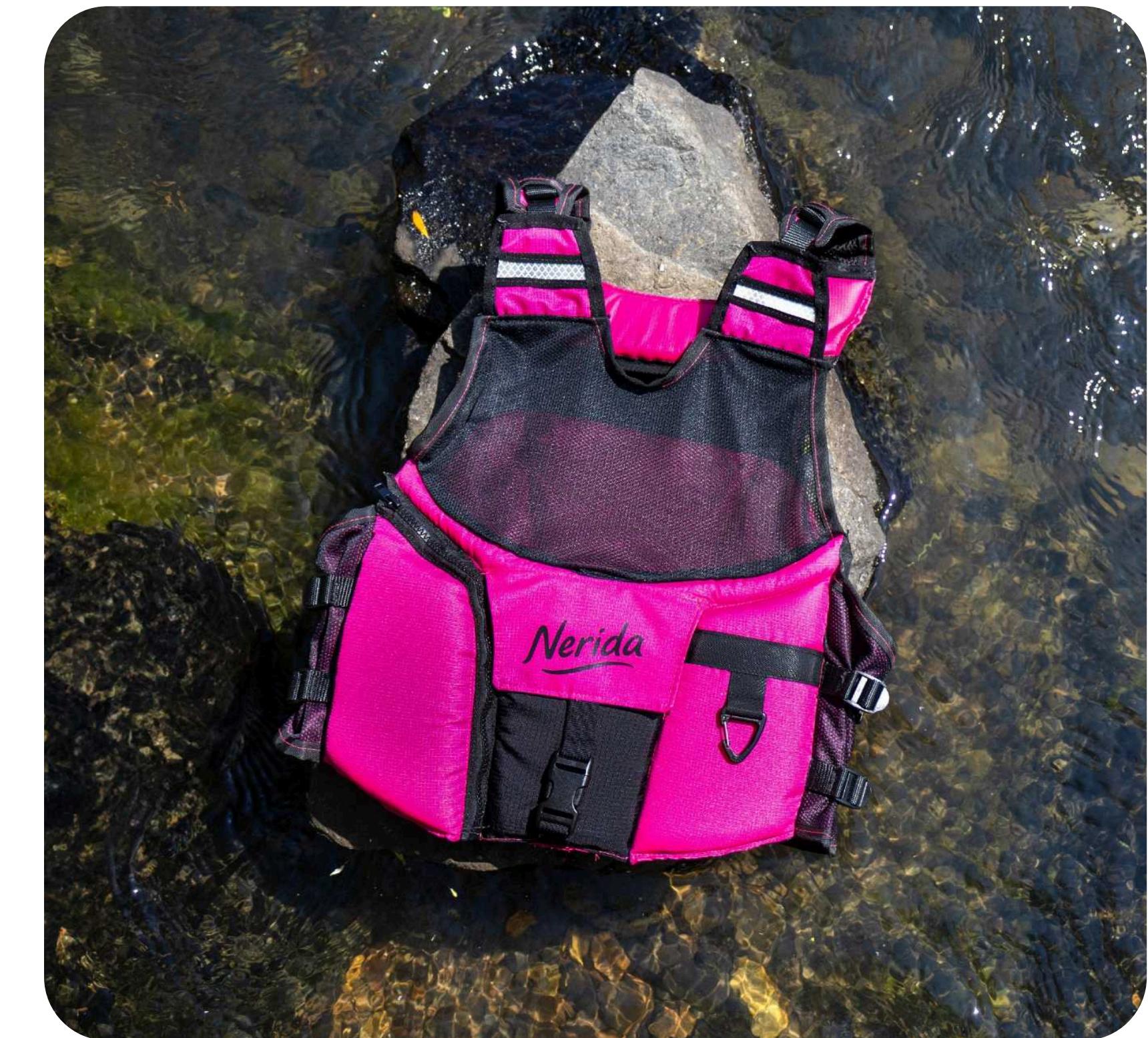
twist | 9 weeks | fall 2024

contents

these projects document my design practice and process, centered on empathy, inclusion, and care. each project explores how design can better support diverse bodies, experiences, and ways of living. they strive to show my approach to listening, learning, and designing alongside users to improve human needs and experiences.



nerida | 9 weeks | spring 2025



soothe | 9 weeks | winter 2025



the polka pack | 9 weeks | fall 2024



second skin | 9 weeks | fall 2025

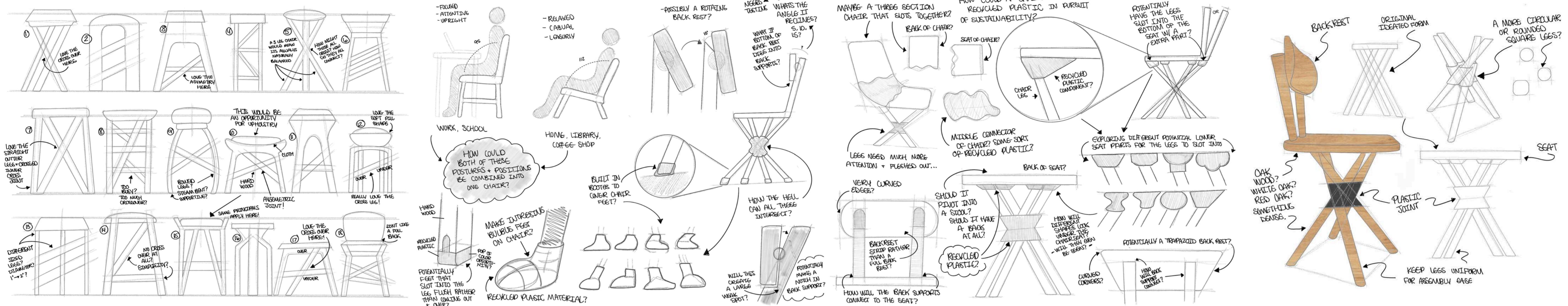


SWIST

an experimental sustainable chair design



1, sketching potential forms and leg structures



2, after sketching, i took to ideating a multitude of different forms and angles in 1/8th scale models



3, through experimentation, my ideas narrowed into two core forms



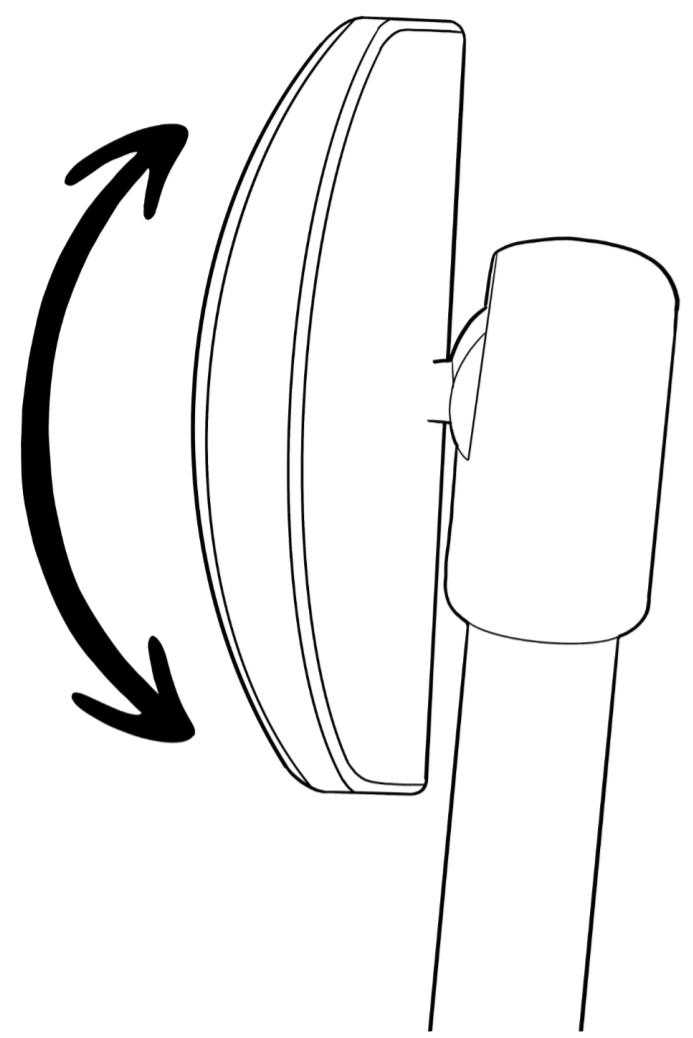
4, I then turned to creating “like-final material” models



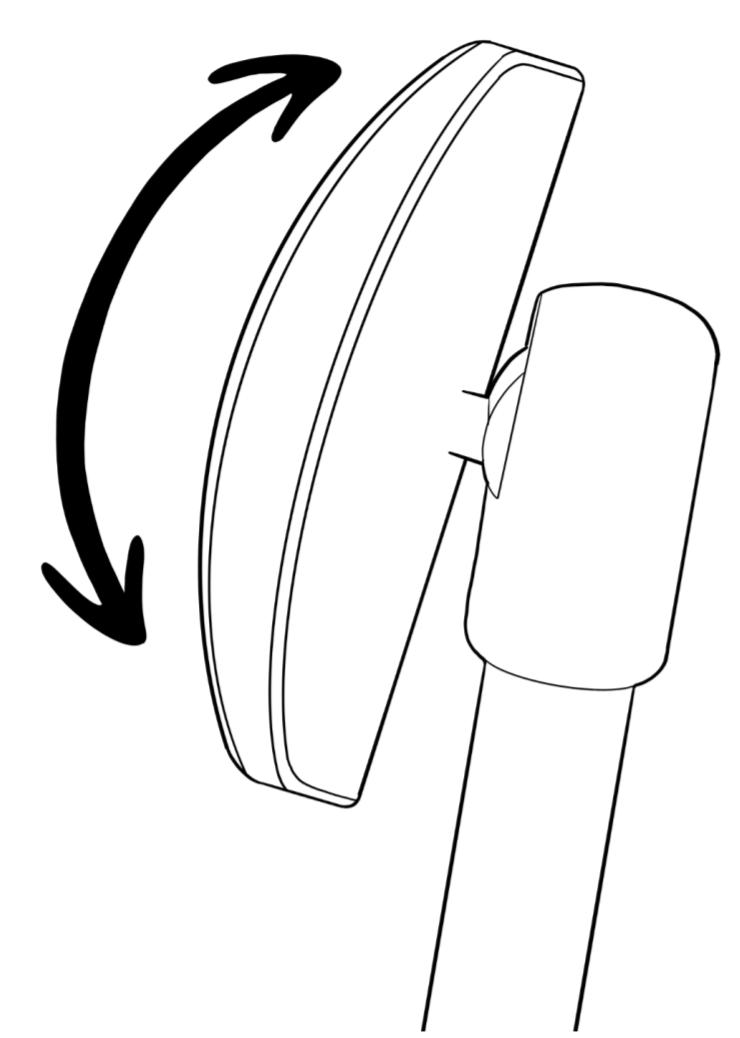
5, turning 1:8 models to full 1:1 scale

hidden affordance

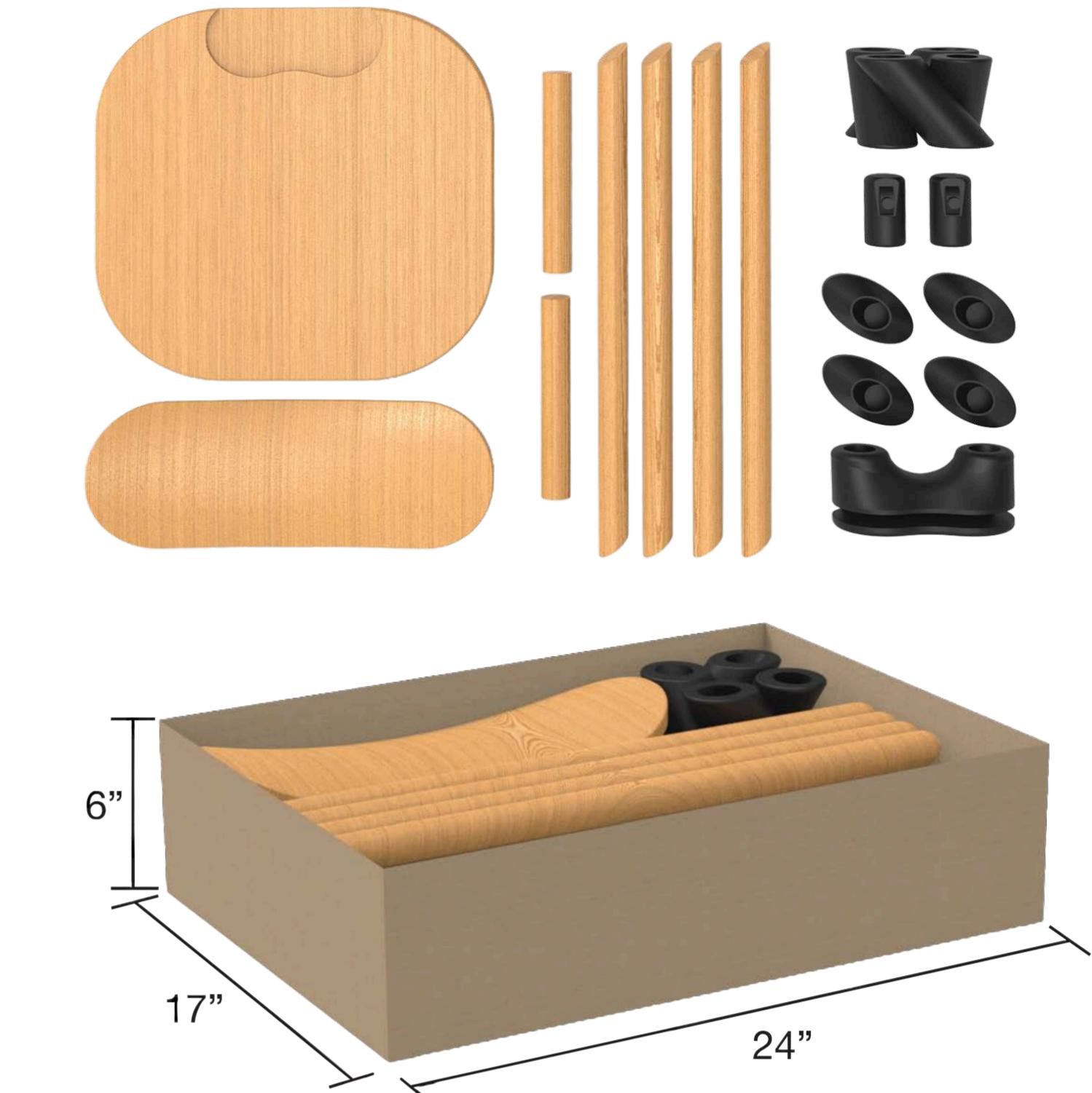
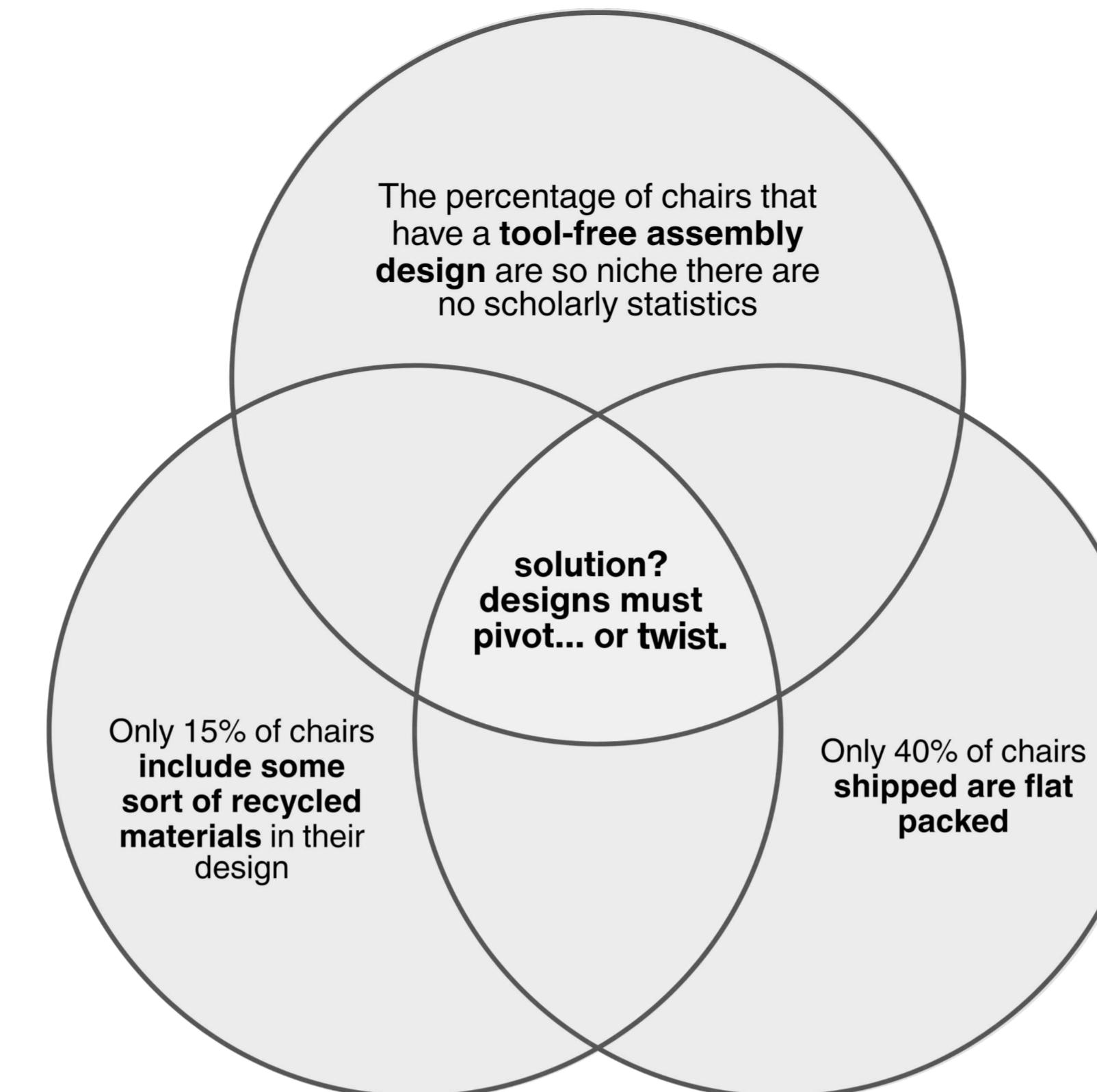
twist has an integrated 10° range of motion in the backrest allowing for two different postures



upright for focus



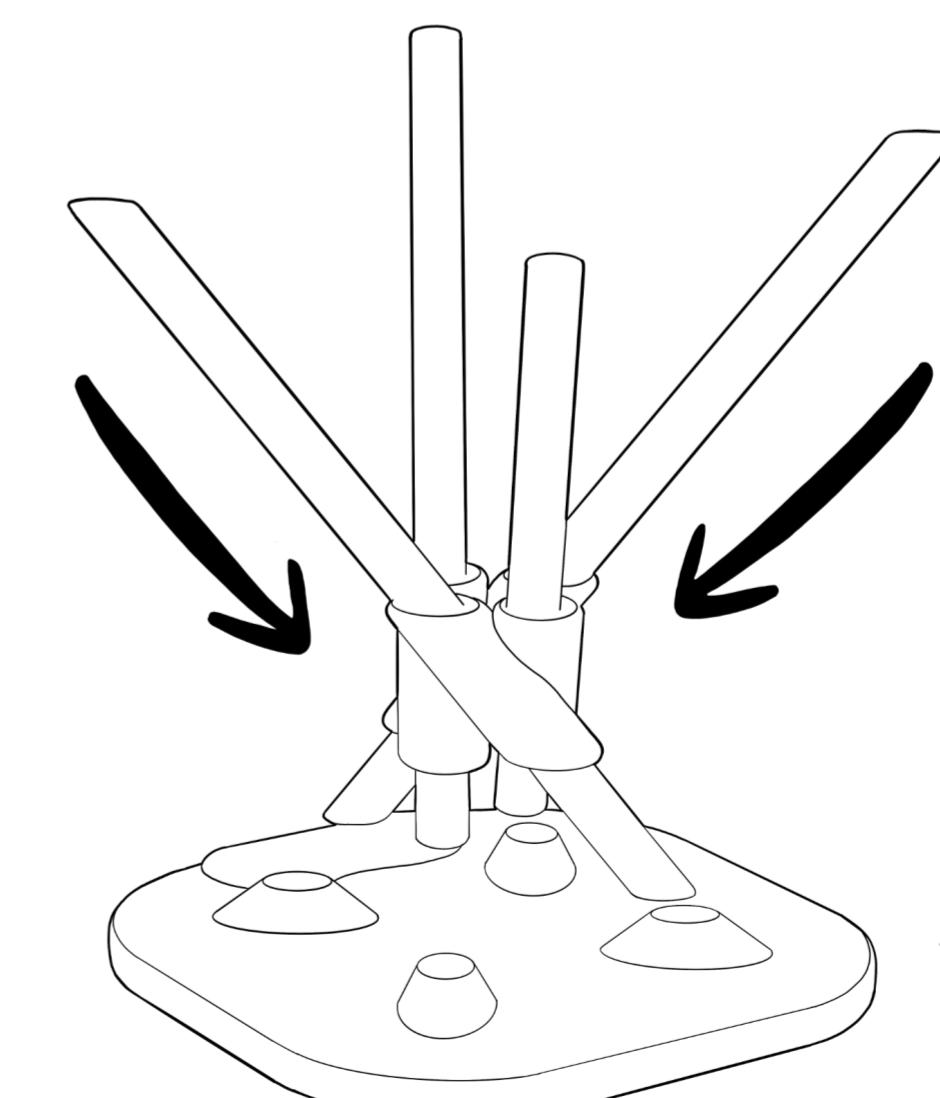
reclined for relaxation



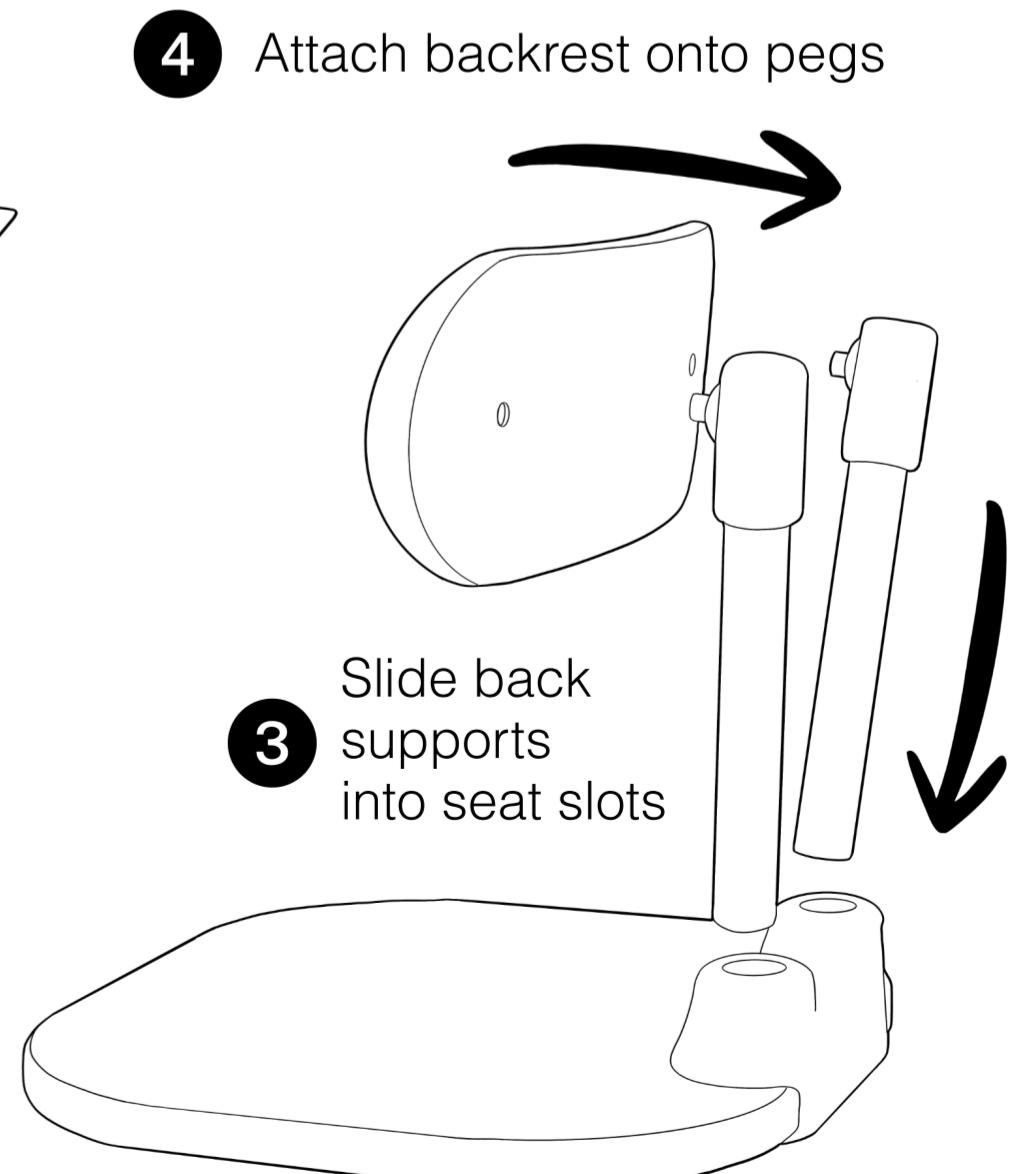
fully assemble twist in just 4 easy steps

twist features a tool-free, intuitive assembly where each component locks into place through gravity and tension fit. This approach makes assembly and disassembly accessible to anyone, including those who are unable to use tools or apply significant force.

- 1 Insert each leg through the joint and into the mounts from the underside



- 2 Flip chair upright

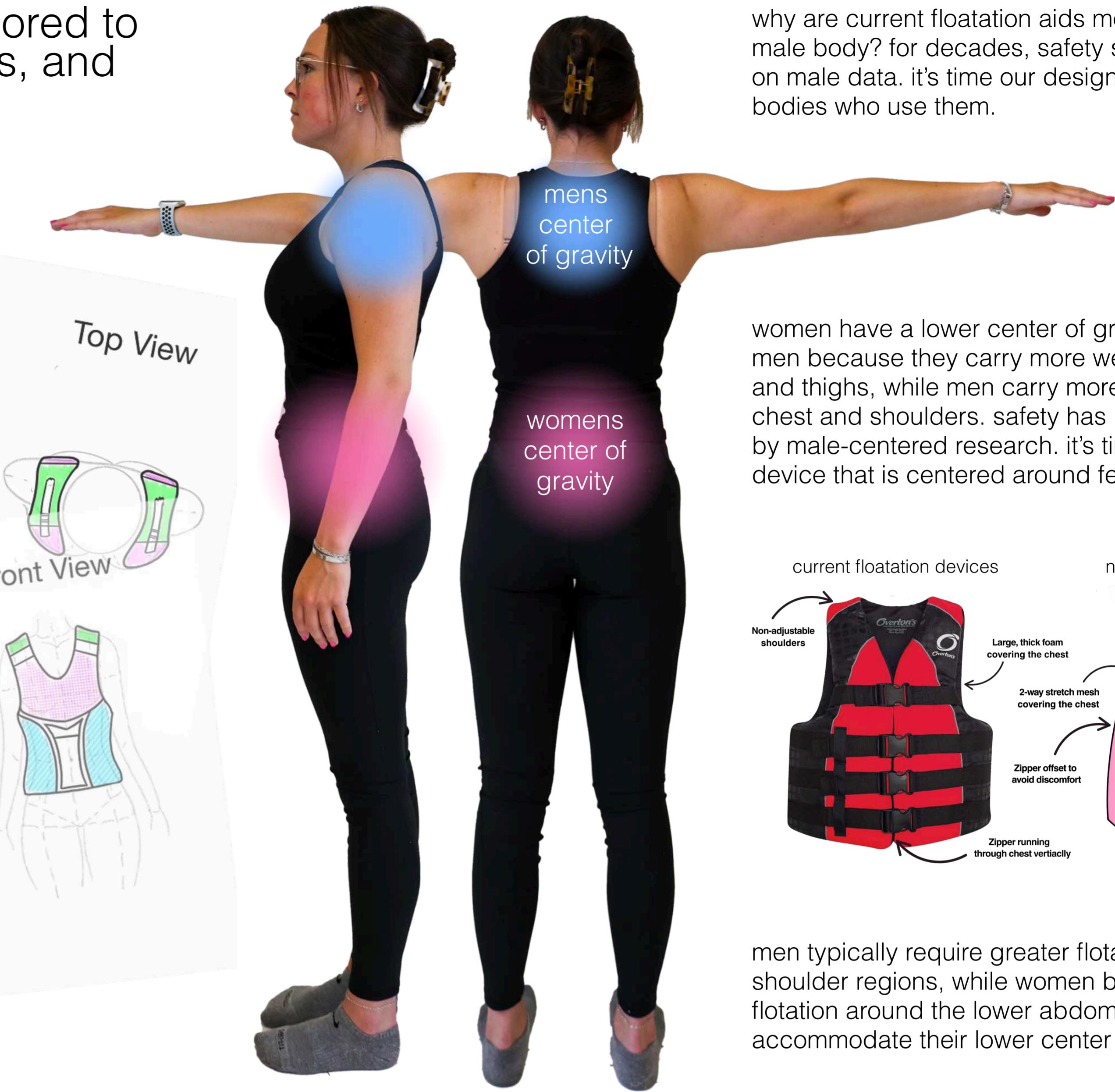




a lifejacket designed
around the female form

how might i... design a flotation aid that is specifically tailored to a woman's body to better accommodate her bust, curves, and lower center of gravity?

why are current flotation aids modeled after the male body? for decades, safety standards were built on male data. it's time our designs reflect the diverse bodies who use them.

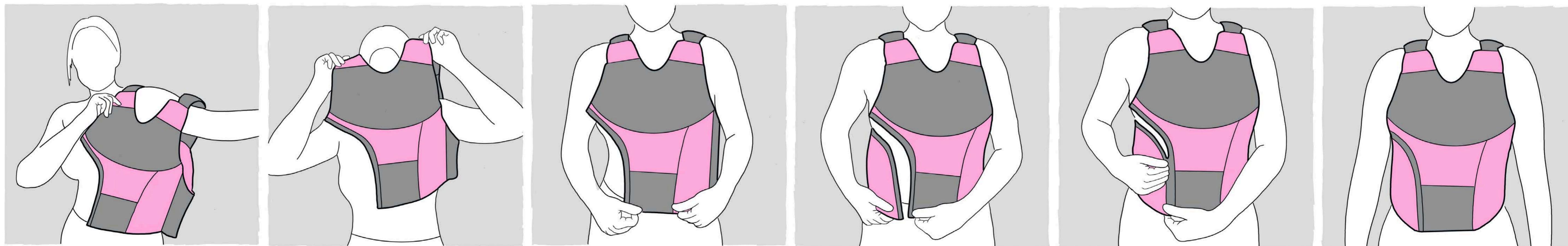


women have a lower center of gravity (COG) than men because they carry more weight in their hips and thighs, while men carry more weight in their chest and shoulders. safety has long been defined by male-centered research. it's time for a flotation device that is centered around female anatomy.



men typically require greater flotation in the chest and shoulder regions, while women benefit from increased flotation around the lower abdomen and back to better accommodate their lower center of gravity.

donning and doffing process





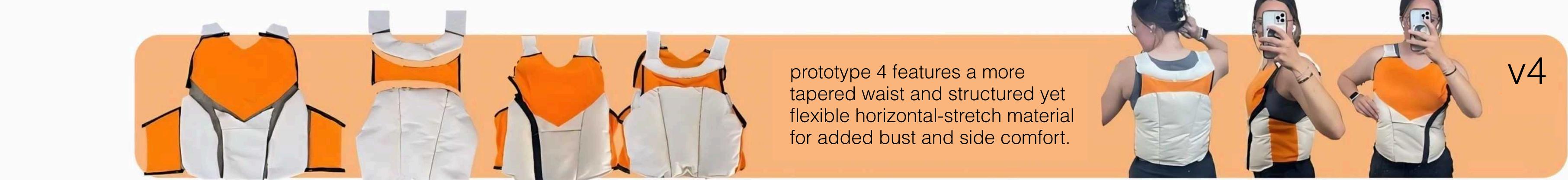
prototype 1 began with a very low fidelity body-based template to explore fit, zipper placement, and elastic zones.



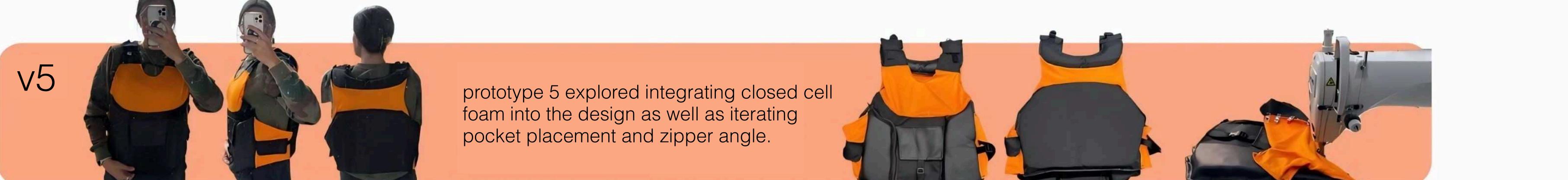
prototype 2 consisted of adjustments in the seam allowances in the pattern as well as refining the order of operations.



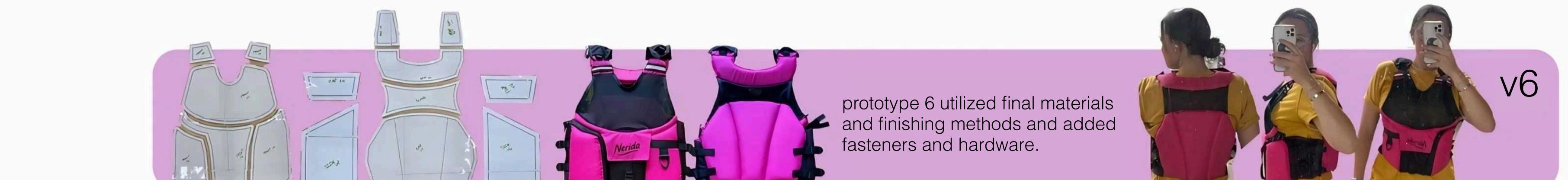
prototype 3 was scaled up and constructed with low-stretch mesh for better structure and support.



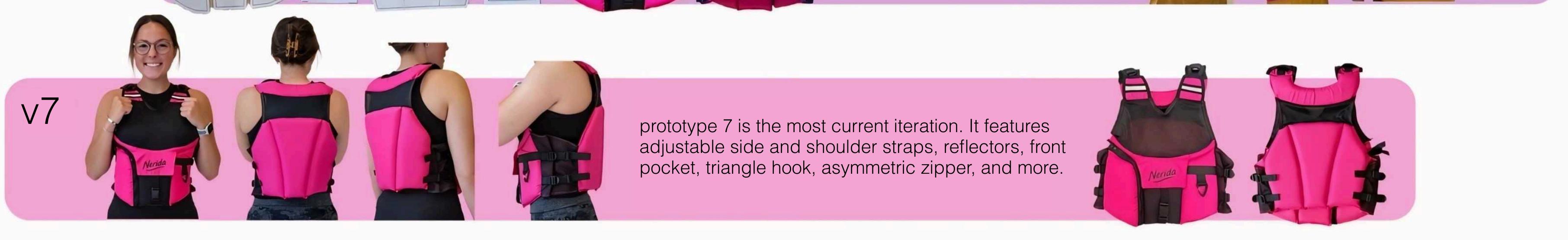
prototype 4 features a more tapered waist and structured yet flexible horizontal-stretch material for added bust and side comfort.



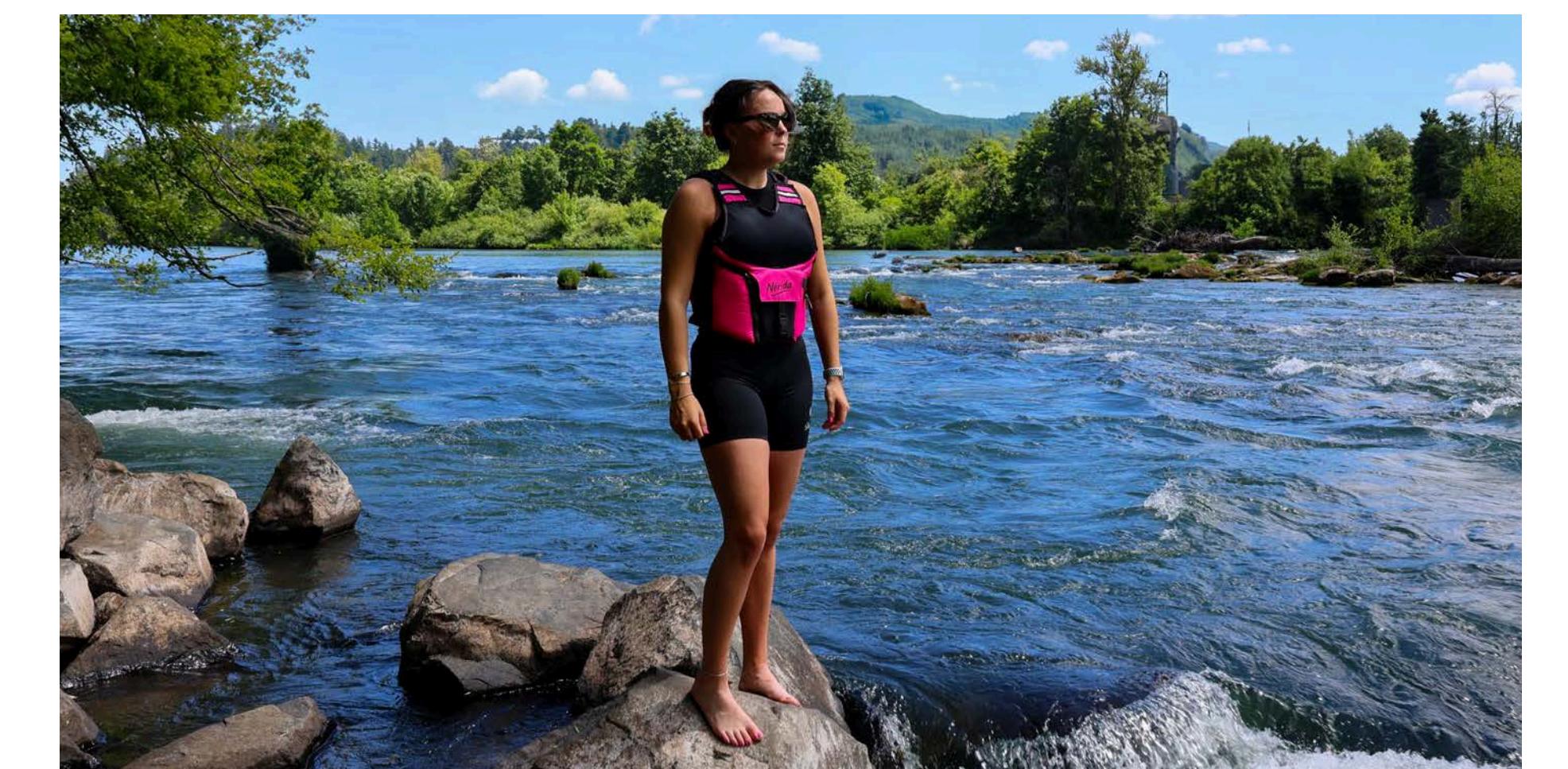
prototype 5 explored integrating closed cell foam into the design as well as iterating pocket placement and zipper angle.



prototype 6 utilized final materials and finishing methods and added fasteners and hardware.



prototype 7 is the most current iteration. It features adjustable side and shoulder straps, reflectors, front pocket, triangle hook, asymmetric zipper, and more.



soothe



a lamp designed to embody golden hour

how might i... design an atmospheric experience that evokes the calm, warmth, and intimacy of golden hour?



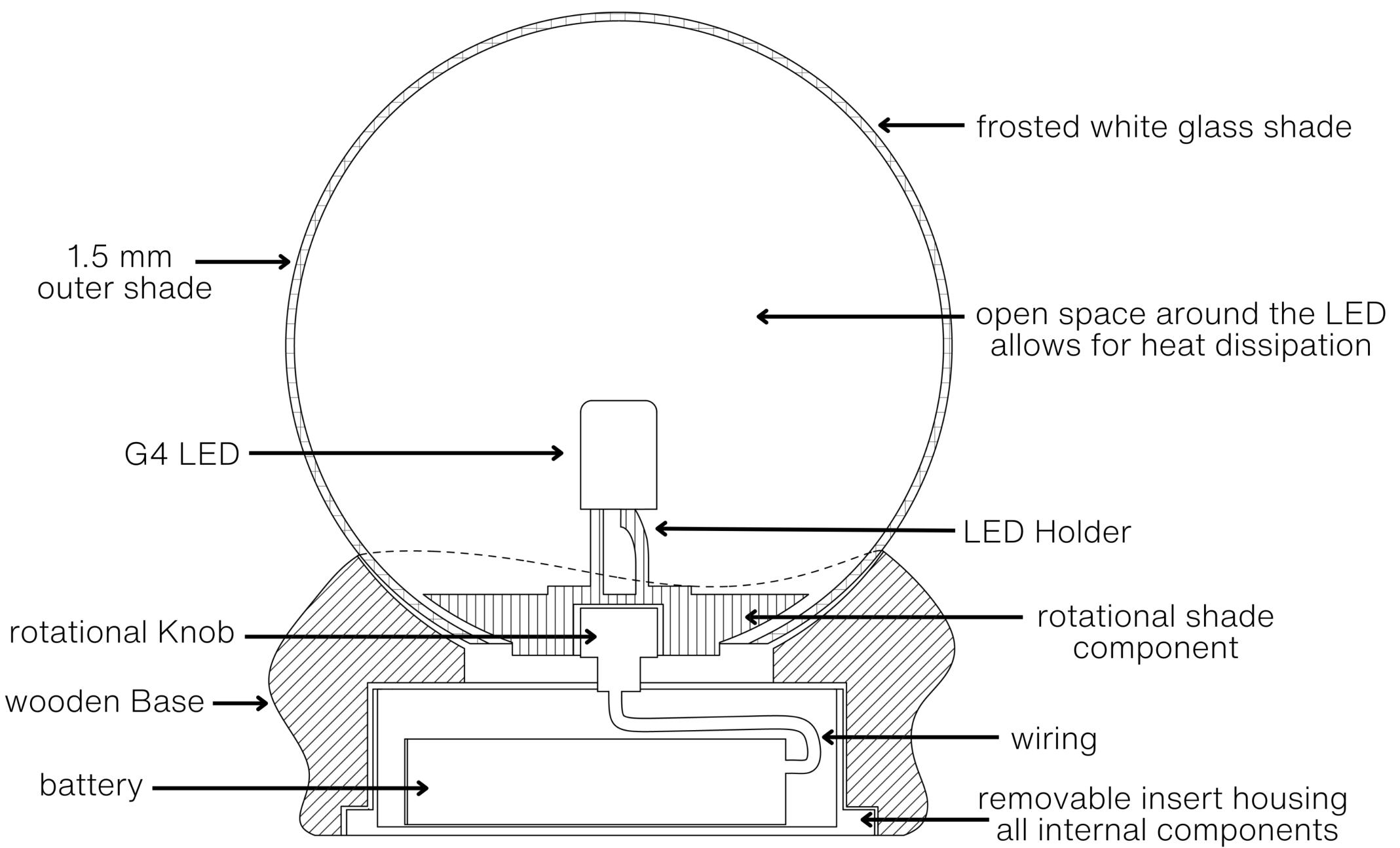
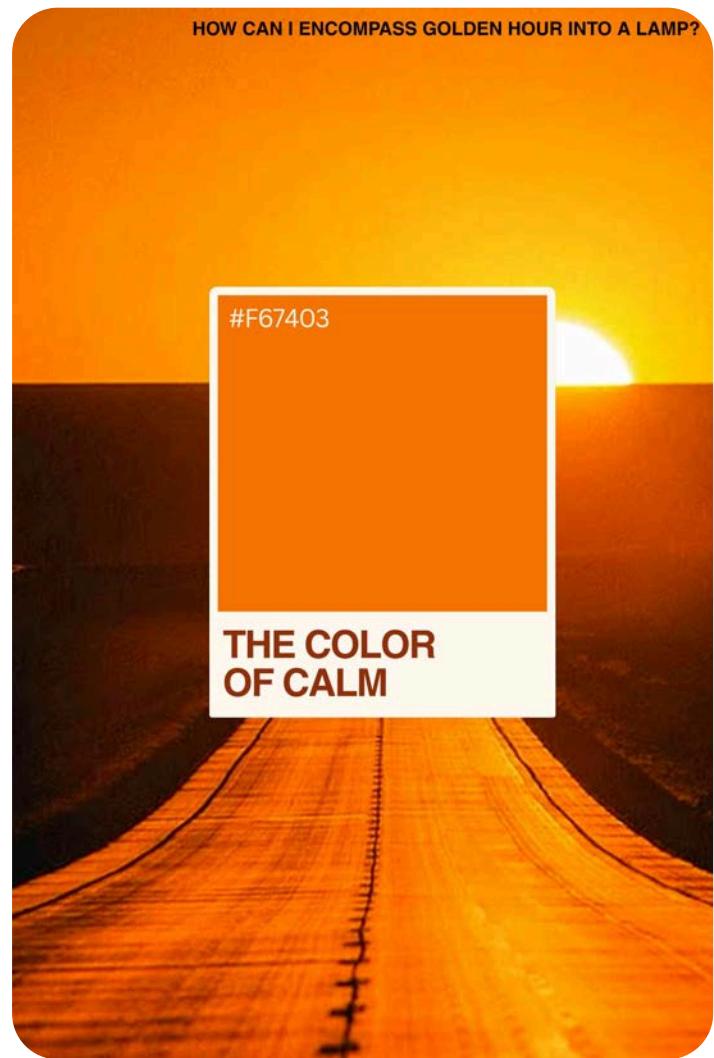
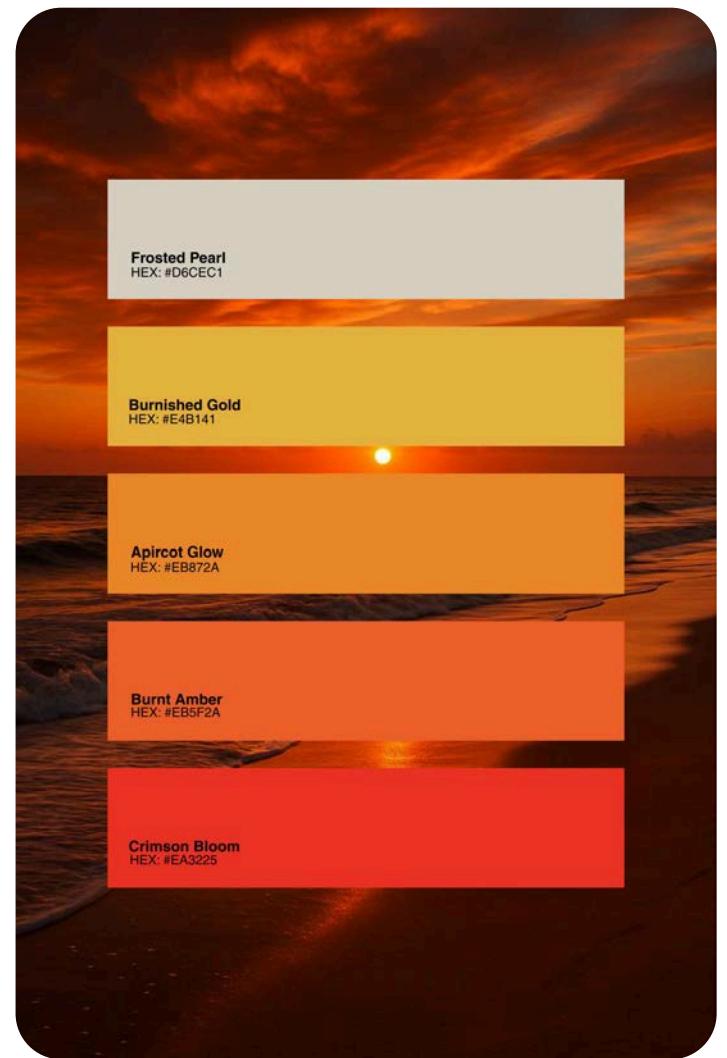
soothe began with a simple question, how can golden hour be captured in a lamp? i analyzed what makes sunset light so powerful, its warmth, gradual diffusion, and the way it gently envelops its surroundings. through iterative color studies and temperature testing, I worked to replicate that immersive glow. the final form references the sun descending below the horizon, embodying a quiet moment of transition within a functional object.



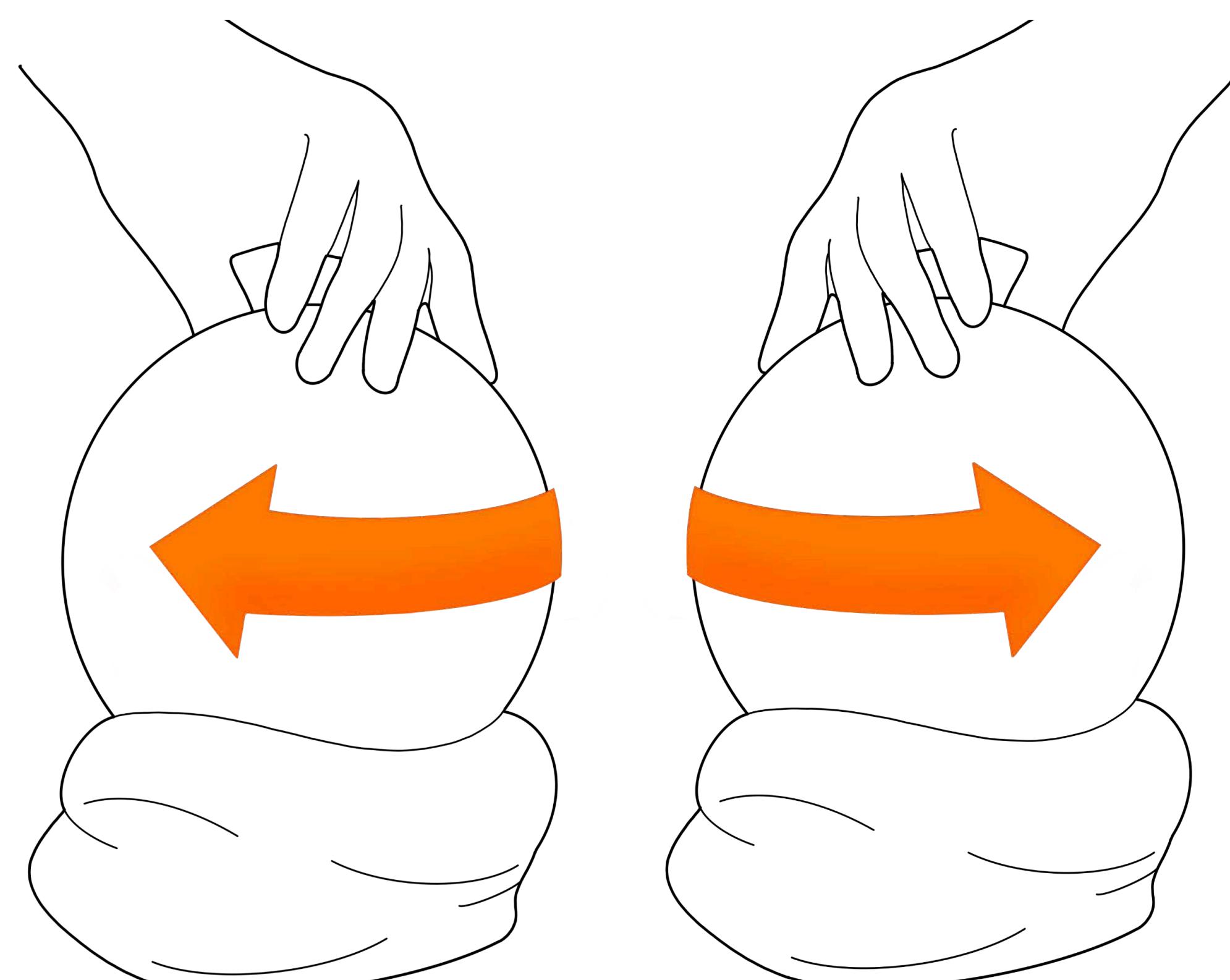
i began then ideating with a strong, intentional direction. i wanted to see how i could visually capture the view of the sun sinking into the horizon? that guiding idea pushed my sketches beyond static shapes by giving them a sense of gravity.

through iterative prototyping i worked to refine color, form, size, and diffusion.





soothe was designed with a 360-degree experience in mind, so I intentionally avoided a traditional on/off switch, which implies a “front” and “back.” instead, power is activated through a gentle, tactile rotation of the sphere.



Turn to the left to turn off.

Turn to the right to turn on.



Seeing spots?

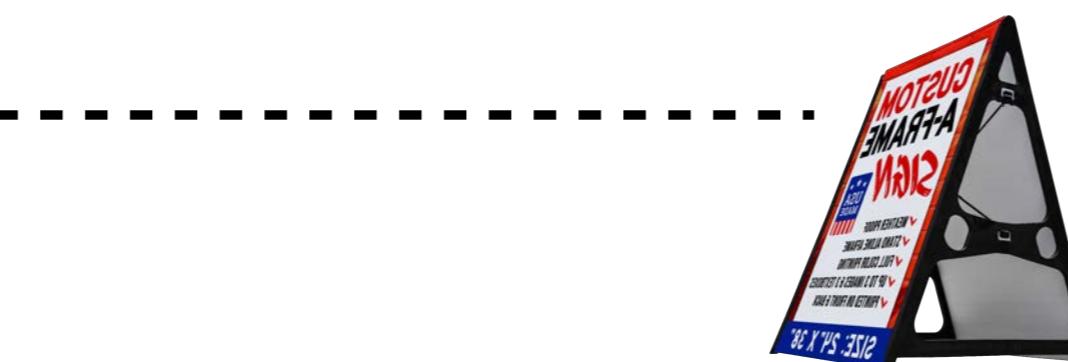
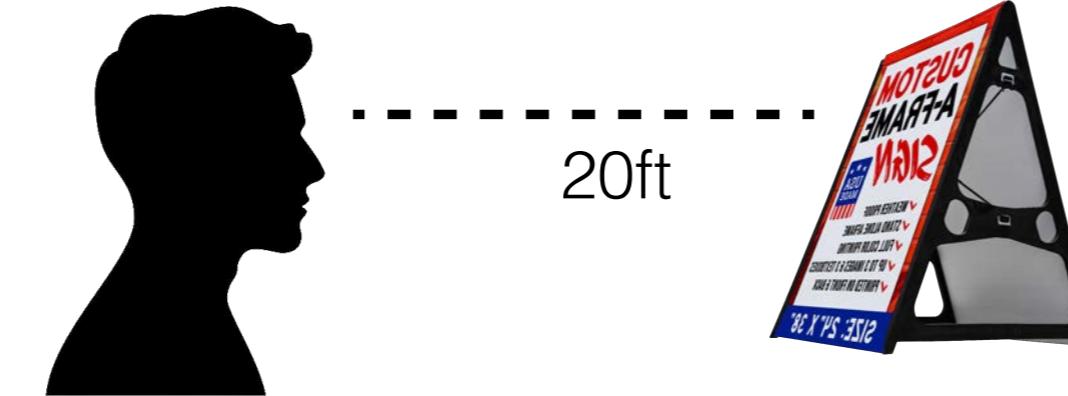
A high-visibility bag design
centered on visual and tactile recognition

how might i... design a backpack that empowers individuals with visual impairments to navigate and organize their belongings independently and confidently?

Blindness is defined as 20/200 vision or worse, meaning a legally blind person must be 20 feet away to see what someone with 20/20 vision can see at 200 feet.

This level of visual limitation reshapes how people interact with everyday objects. Tasks that rely on quick visual scanning instead require proximity, memorization, or touch.

with low vision, visual details that guide everyday actions are often invisible. traditional bags depend on sight to locate openings, distinguish pockets, and orient the bag correctly.



Why are traditional packs hard for people with visual impairments to use?

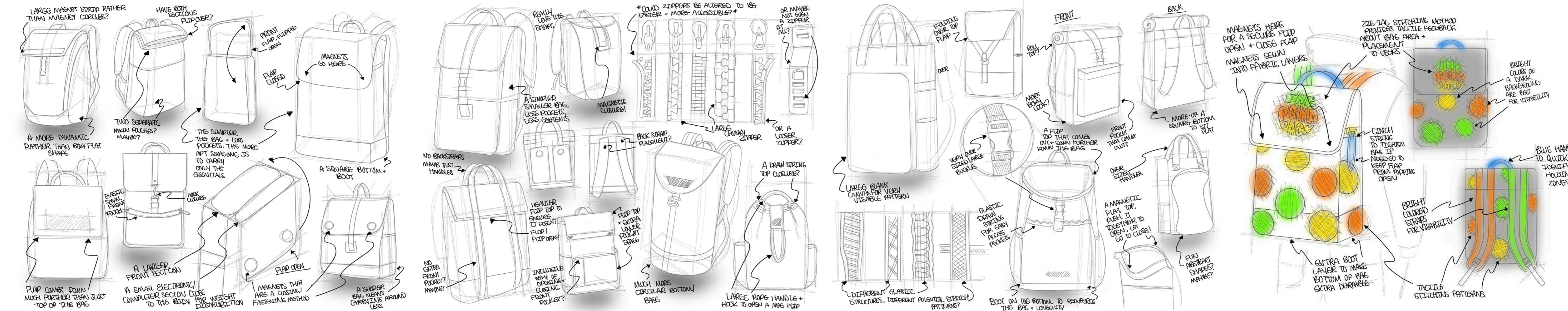
small & hard to locate zippers

one solid color makes identifying pack hard

small, thin, and uniform color loop makes it hard to identify



sketching potential solutions and bag designs



i worked through several prototypes, each informing the next. ideate, pattern, sew, test, deconstruct, repeat. at each step of the iteration process I looped back in users with low visibility to give feedback and inform the next iteration of the design.



prototype 2



prototype 4



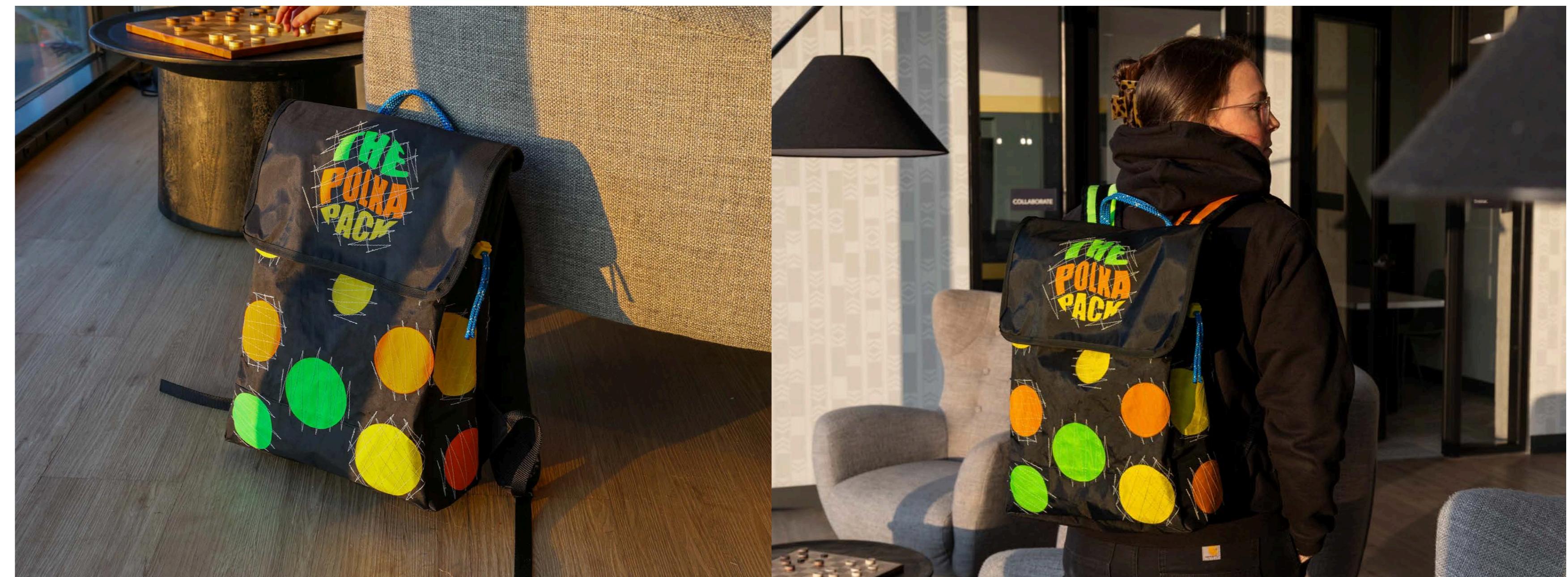
prototype 6



prototype 2 explored basic form and volume, exploring stitching patterns for tactility and different magnetic closures

prototype 4 focused on overall proportions/ order of operations and creating a prototype that was user feedback ready

prototype 6 refined overall construction and worked to integrate prior user feedback into a more resolved pack





a modular hand protection & grip system
designed for wheelchair athletes

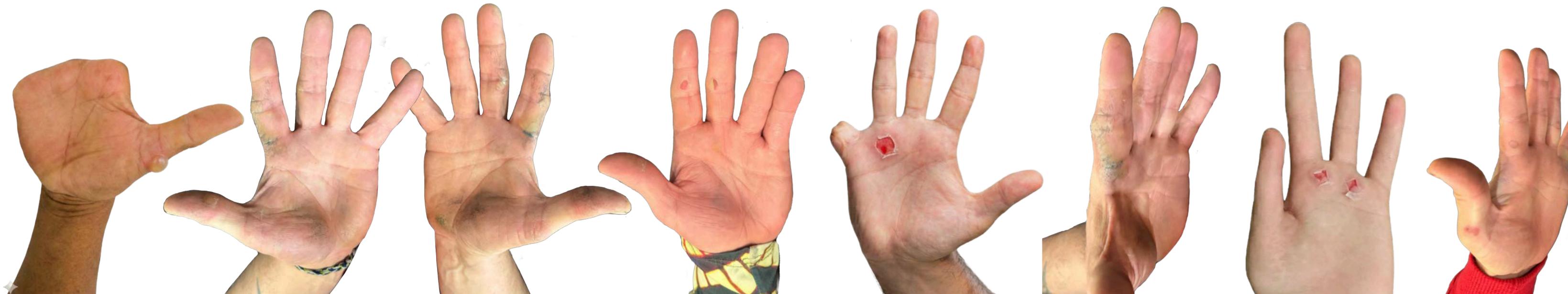
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**IDSA
INNOVATION**

This project has been invited for publication in IDSA Innovation (Spring 2026 edition), recognizing its original design research and product development.



how might i... create an ultra-thin protective layer that guards high-impact hand zones for wheelchair athletes without diminishing feel or performance?

grip zones abrasion zones structure zones



wheelchair athletes are tearing their hands apart just to move. playing their sport at the expense of their bodies.

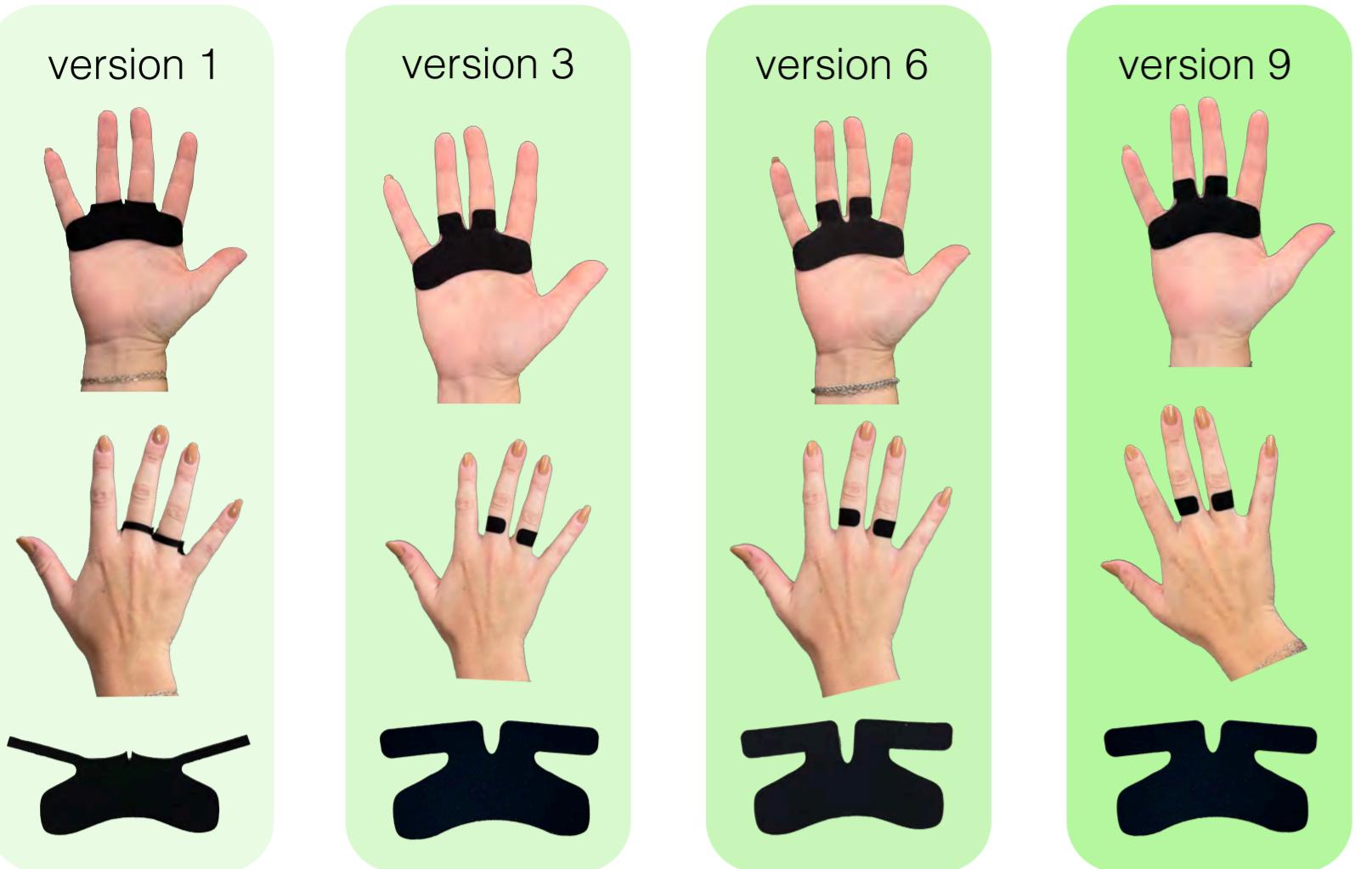


to design second skin, I immersed myself in wheelchair basketball, playing to experience firsthand the strain, friction, and repetitive impact athletes endure. this embodied research deepened my understanding of how hands engage with rims, push strokes, and rapid directional shifts. then i collaborated with athletes with lived experience, gathering feedback, testing prototypes, and refining each iteration. their insights helped me ground my design in authentic collaboration and experience rather than assumptions.



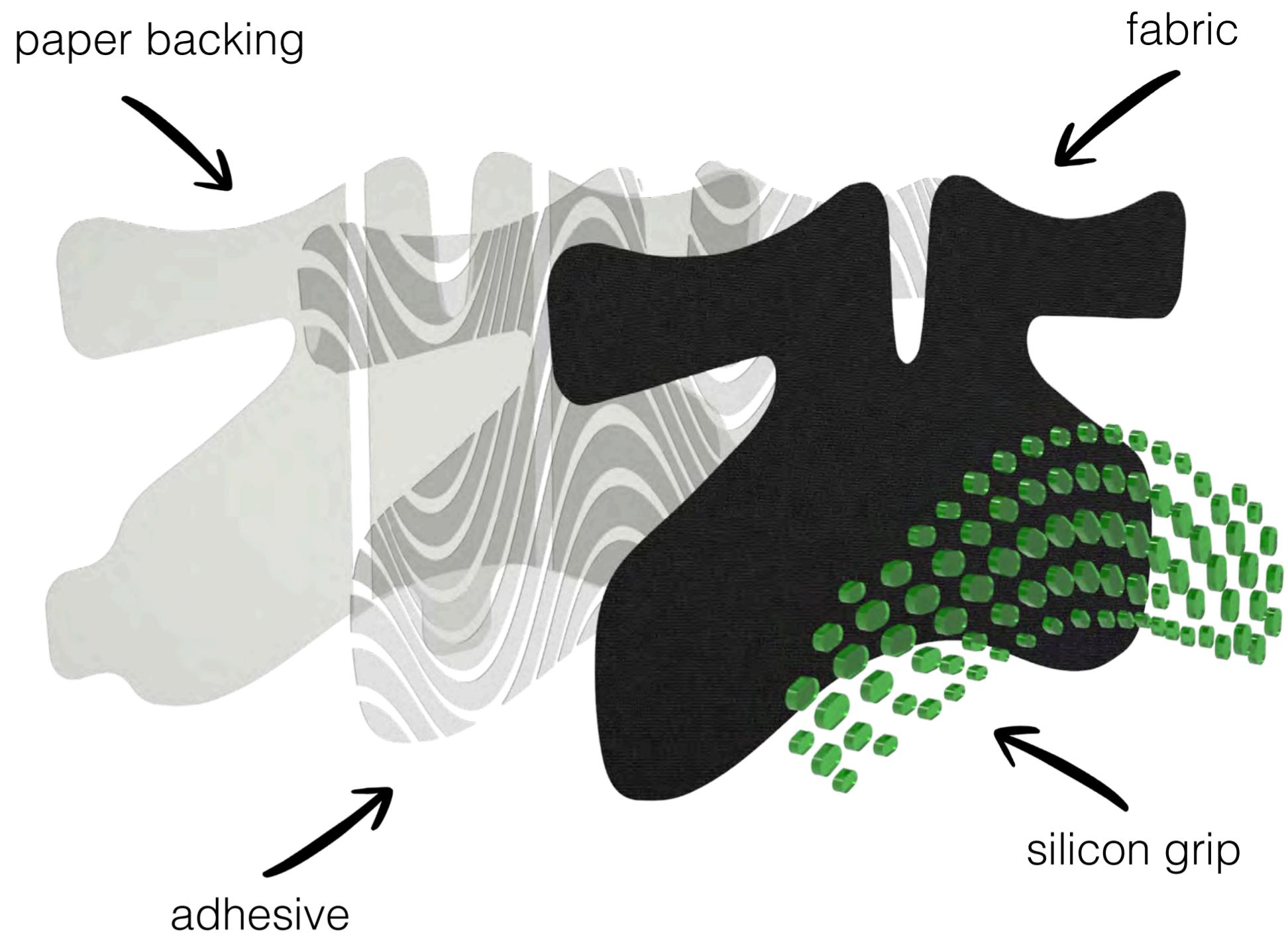
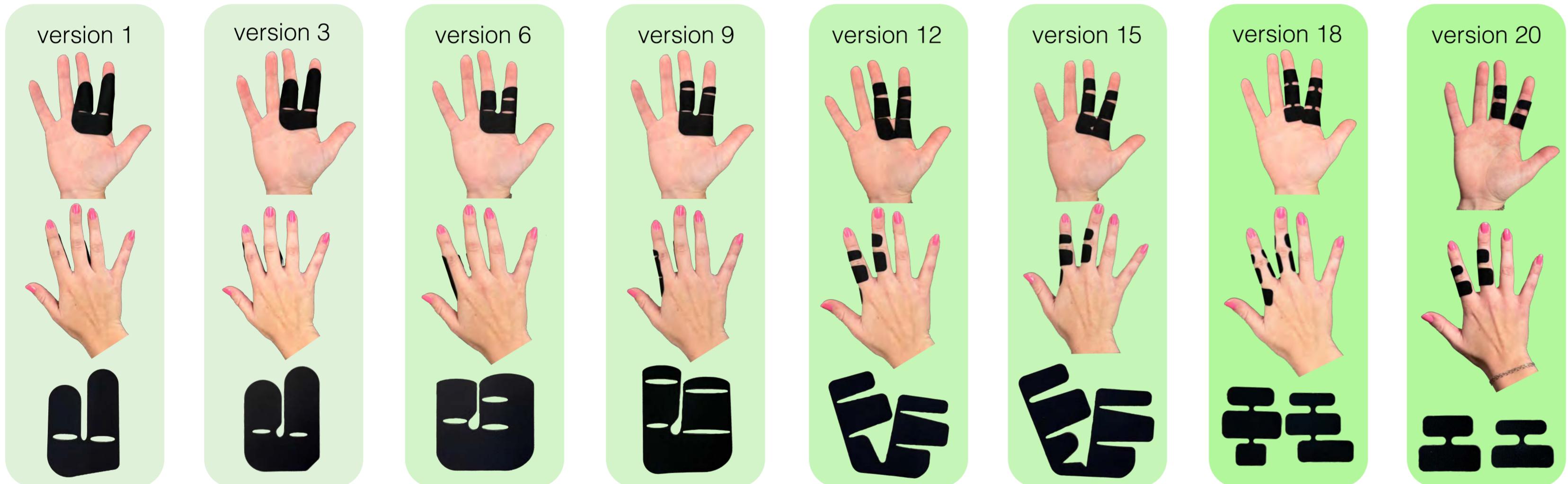
i began by researching the physical demands placed on wheelchair athletes' hands, using zone mapping to identify high-impact areas and specific functional needs. these insights informed the development of distinct protective zones, each responding to different levels of friction.





iterate, iterate, iterate

second skin evolved through rapid, hands-on prototyping, with each iteration tested on the court to evaluate grip, durability, comfort and allow weak points to surface. iterative feedback informed refinements to material selection, grip orientation, and protective zoning, allowing the design to become increasingly responsive to performance demands with every version.



after dozens of iterations, second skin materialized into finalized forms that were responsive and comfortable.



then building on the athlete-tested designs, i created a more athletic, visually appealing, and cohesively unified collection that feels intentional, refined, and athlete driven.



enhanced protection

a rotating micro-grip pattern that increases friction at the start of a push and reduces drag at release. this allows for greater grip strength and a faster, cleaner transition into the next push.

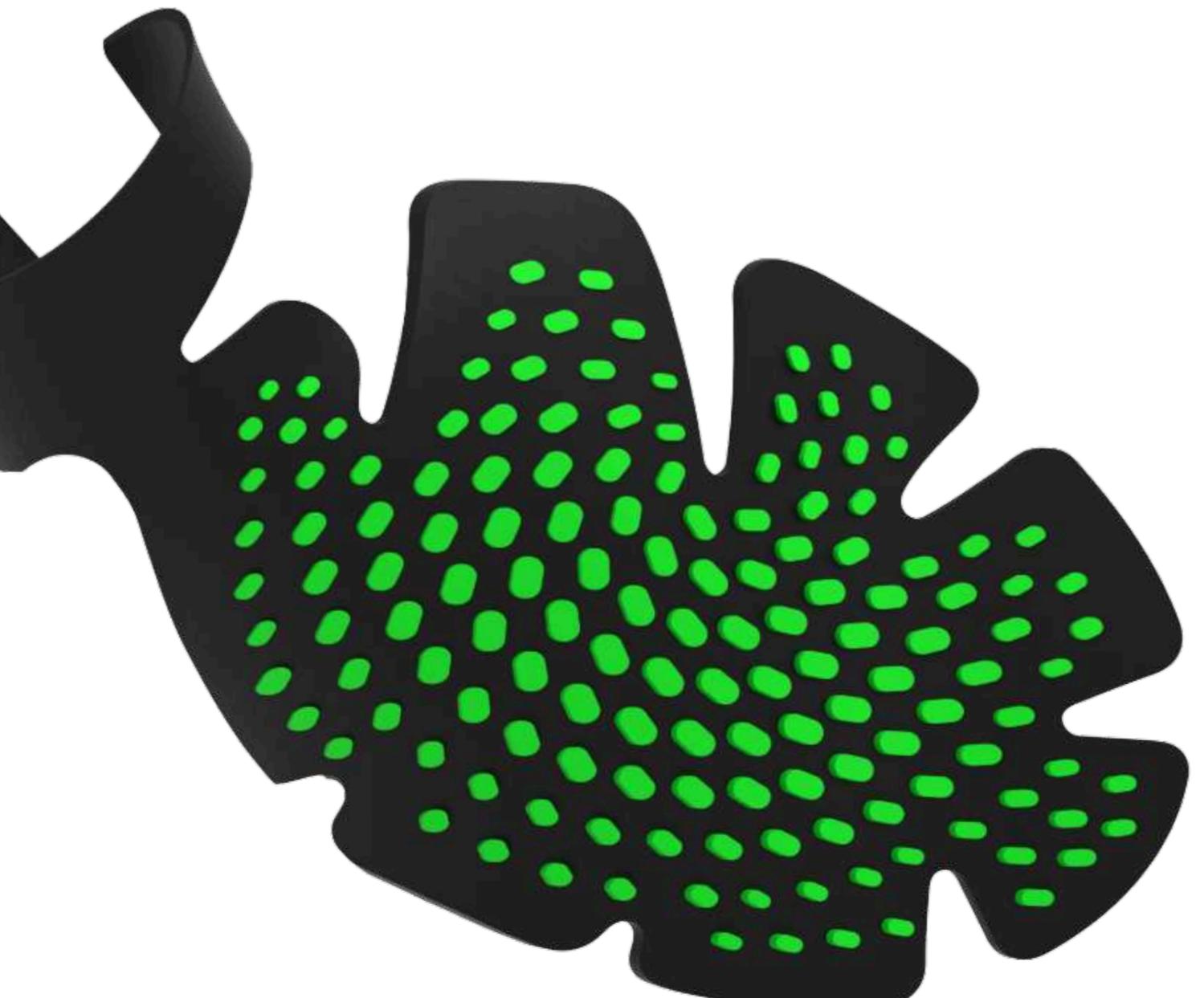
grip that increases protection and amplifies propulsion power.



grip structure

traditional gloves, even fingerless ones, protect by covering large areas of the hand, often at the cost of feel and function. second skin targets only the true abrasion zones, leaving the rest of the hand uncovered for full ball connection, tactility, and control.

protecting abrasion zones while preserving natural touch.



modular design

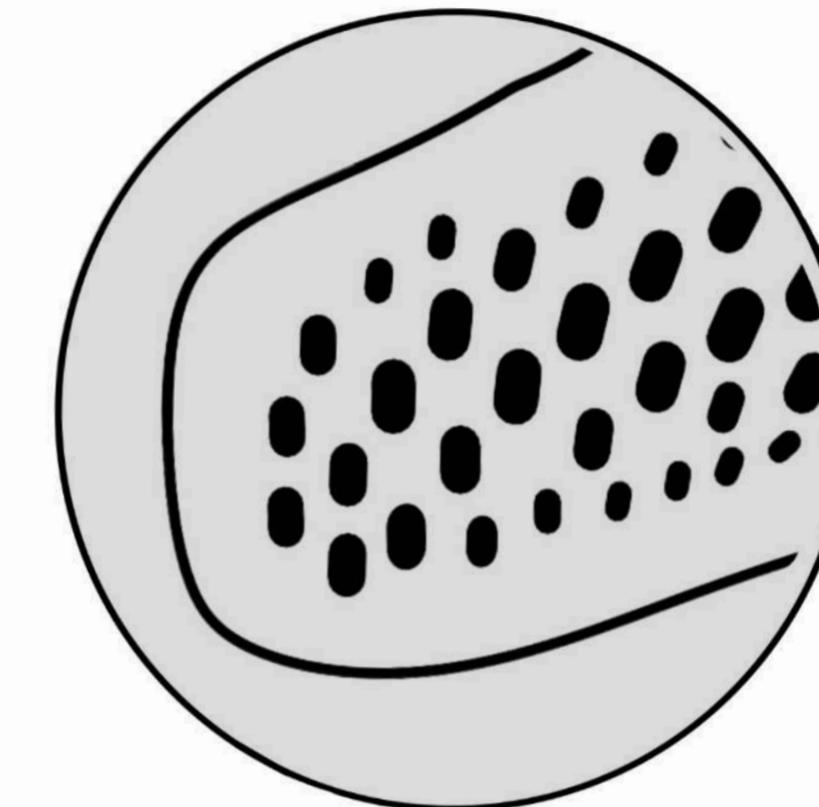
its modular, peel-and-place design means every patch adapts to specific specifications of the athlete. sticking securely to any hand shape or surface so protection goes exactly where it improves athlete performance.

adapt to any athlete that needs protection.

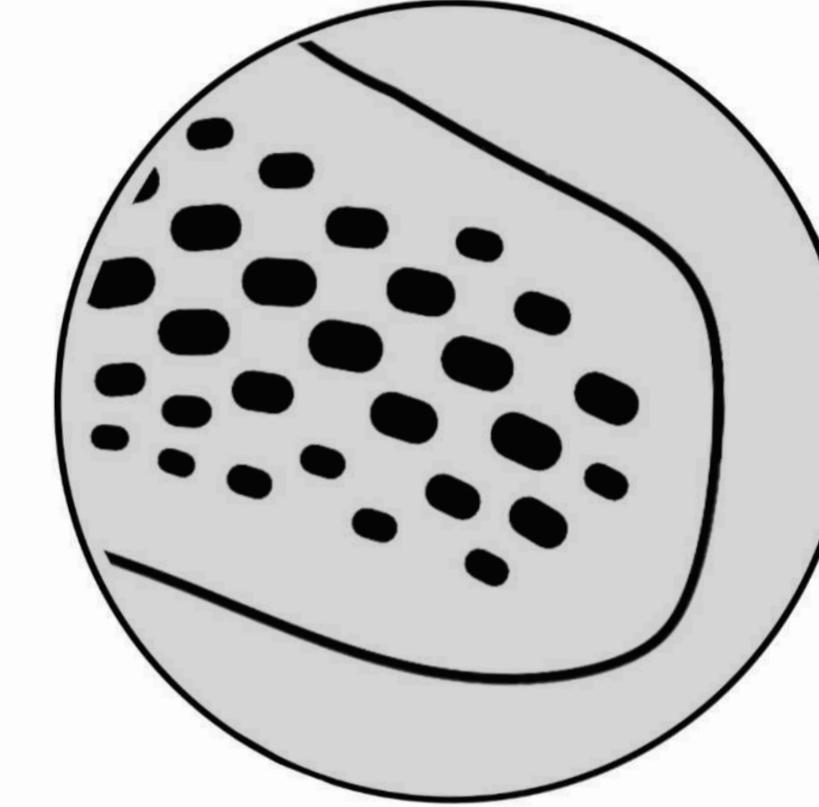


Intention behind the Directional Grip: The Leading Edge Coefficient

The directional micro-grip on second skin is designed to interact with surfaces like optimized tread on a hardcourt. Research shows that friction depends on movement, with orientation and shape playing a larger role during motion than at rest. inspired by this, the angled micro-elements increase grip during propulsion and release smoothly for quick, clean disengagement.



grip perpendicular to the rim
at the start of a push increases friction and generates force.



grip parallel to the rim at the end of a push decreases drag & transition time for the next push.





thank you for taking the time to review my portfolio!

i appreciate the opportunity to share my work, process, and design principles.

thank you again for being here. this work reflects my belief that design is strongest when it is grounded in empathy, inclusion, and care. because at its core, design is not about objects, but about the people they serve.

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- Alexa Haenel