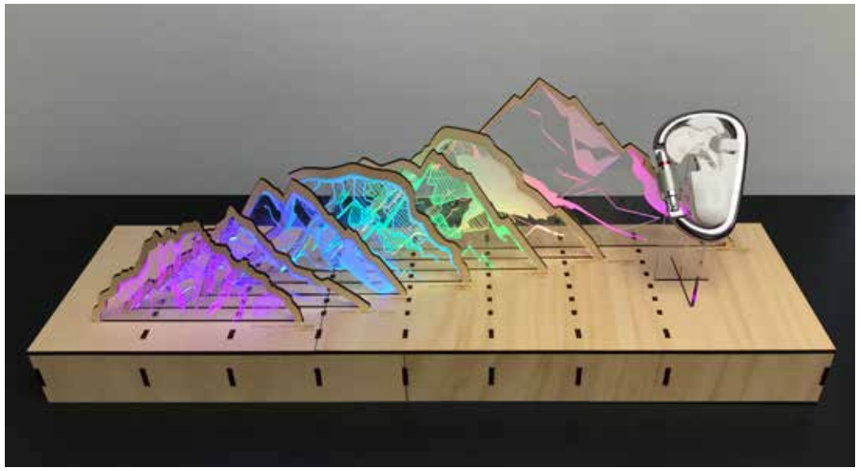
Gerard Rutten

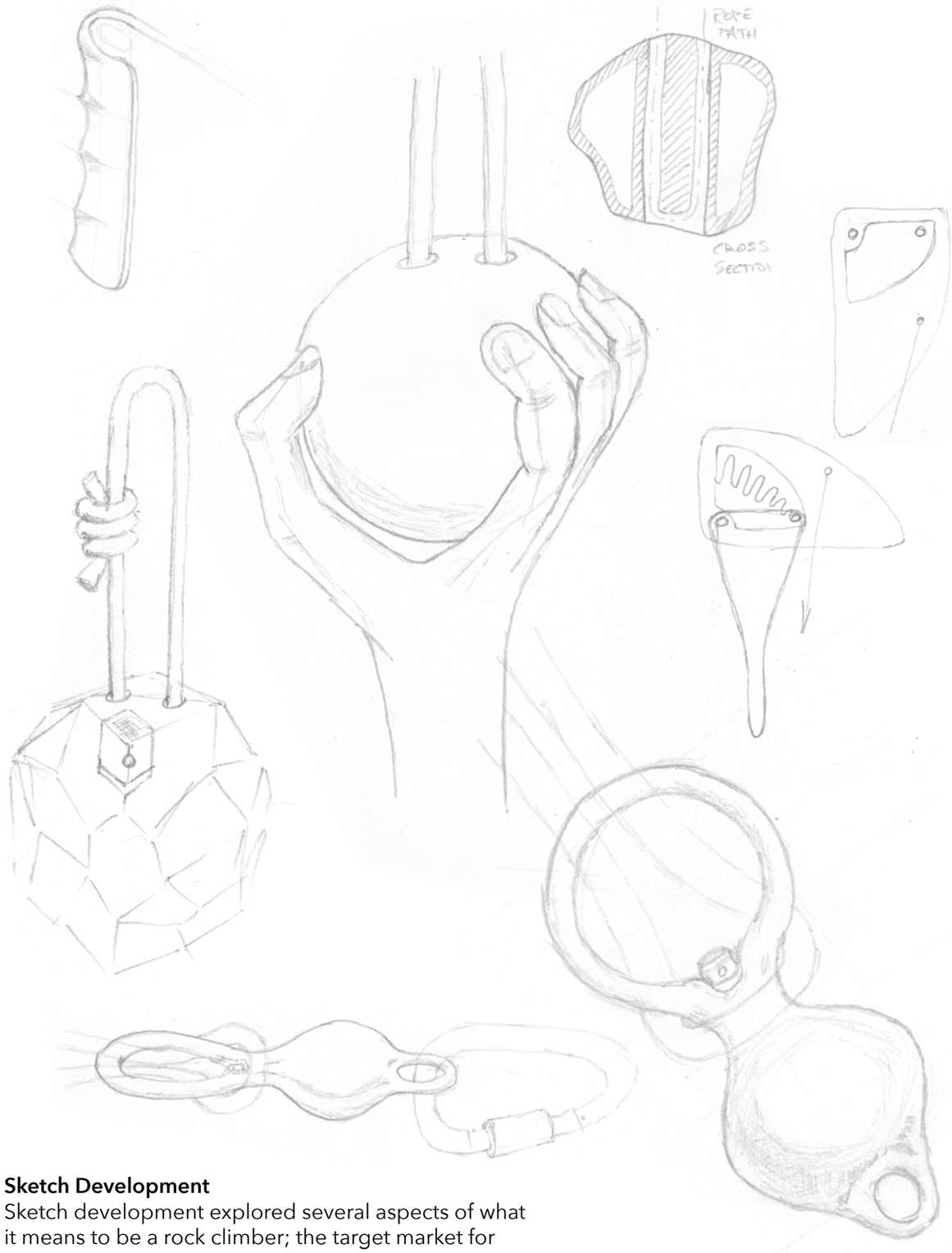
Product Design



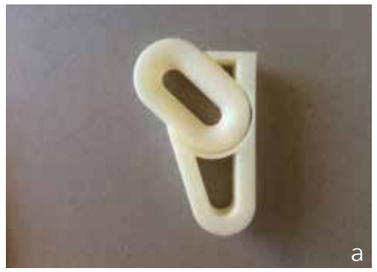
7 Summits

A rock climber's fragrance

https://www.gerardruttendesign.com/portfolio/7summits/

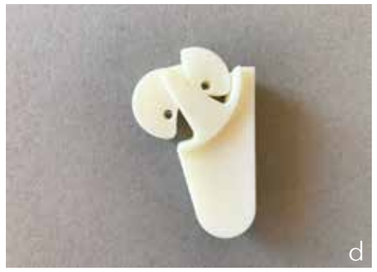


Sketch Development
Sketch development explored several aspects of what it means to be a rock climber; the target market for this fragrance. Climbing gear and training aids were used as inspiration before settling on a fragrance bottle that would nestle within a carabiner - something every climber has in their kit.


a


b


c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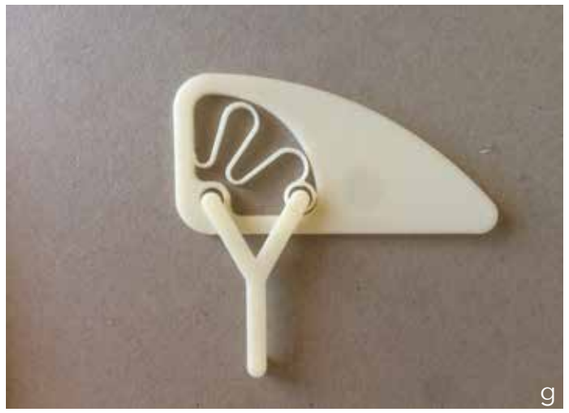
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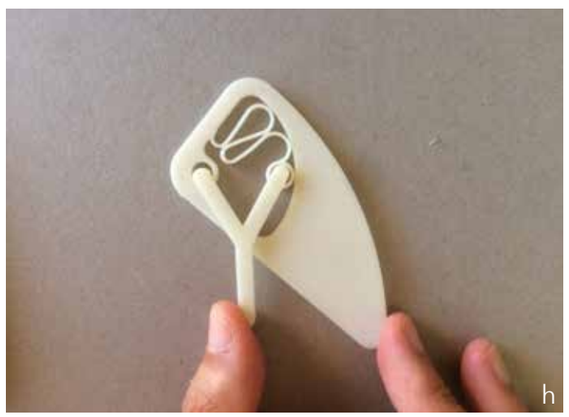
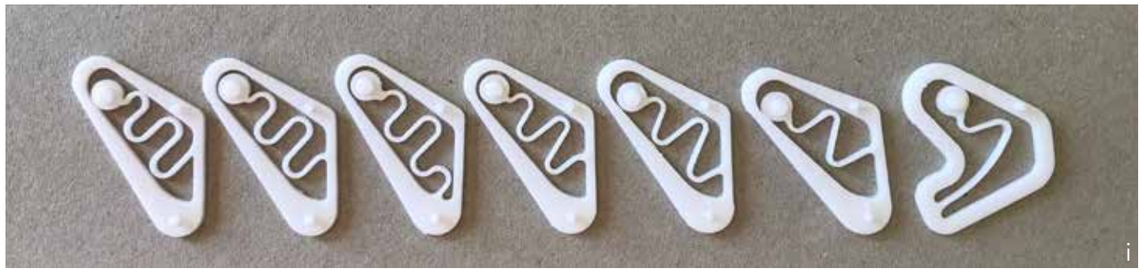

h

Prototyping
Top Row: Initial size and shape testing with sliding catch, a. Isolated assembly, b. Retracted position allowing insertion and removal, c. Locked position.

Second Row: Testing cam mechanism, d. Isolated assembly, e. Retracted position allowing insertion and removal, f. Locked position.

Left: Testing 3D printed spring mechanism, g. Relaxed, h. Compressed


i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k


l

Top Row: Evolution of the Internal spring design made with identical locating lobes to fit a jig for consistent evaluation.

Above: Final Design, j. Section view showing internal 3D printed spring that extends the locking cams, k. Fitted to a carabiner, nozzle locked to prevent accidental operation, l. Angled view showing concave edge profile.

Below: Laser cutting line work used to create the edge-lit acrylic representation of the highest summits in each of the seven continents.

Asia
Mount Everest
8,848 m

South America
Aconcagua
6,961 m

North America
Denali
6,194 m

Africa
Kilimanjaro
5,895 m

Europe
Elbrus
5,642 m

Antarctica
Mount Vinson
4,892 m

Australasia
Puncak Jaya
4,884 m

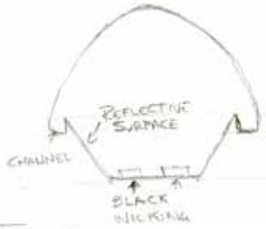
Solar Desalinator

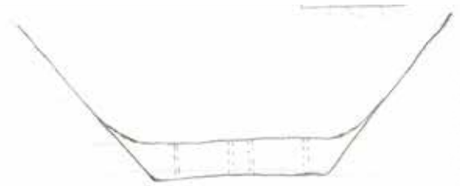
A portable solution to clean water

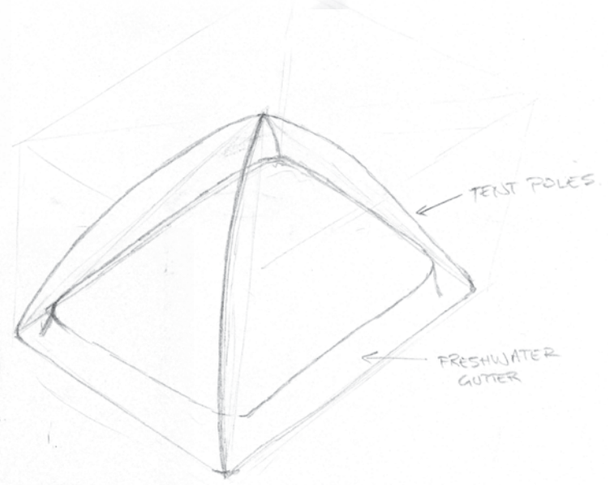
Shortlisted for 2019 Lexus Design Awards

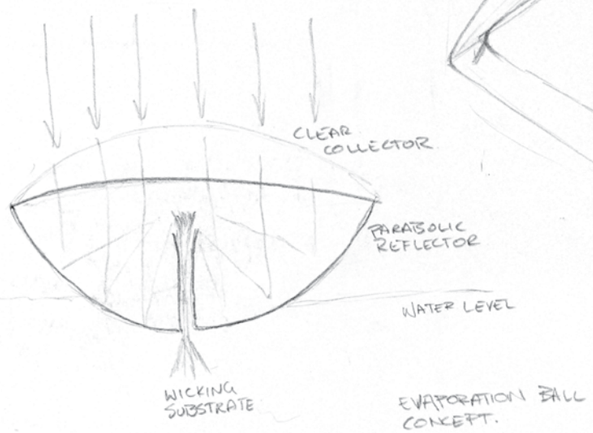
https://www.gerardruttendesign.com/portfolio/waterstill/

CROSS SECTION.

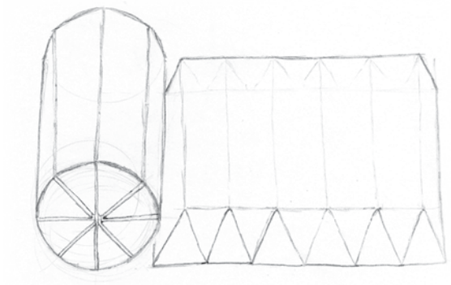


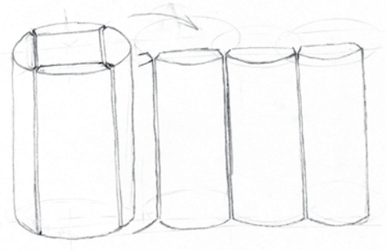


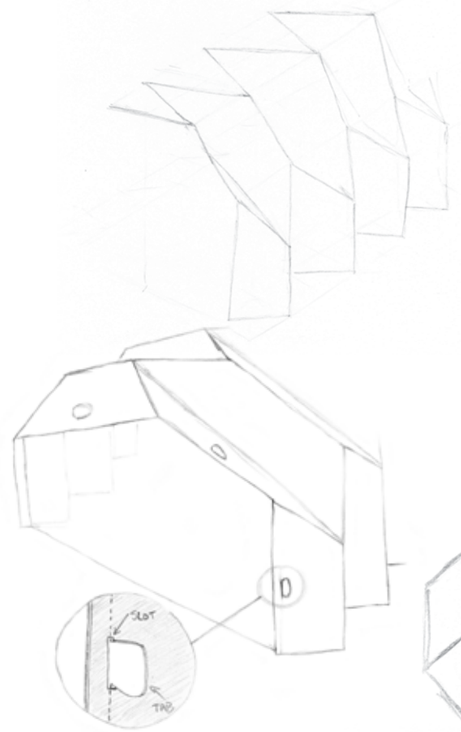


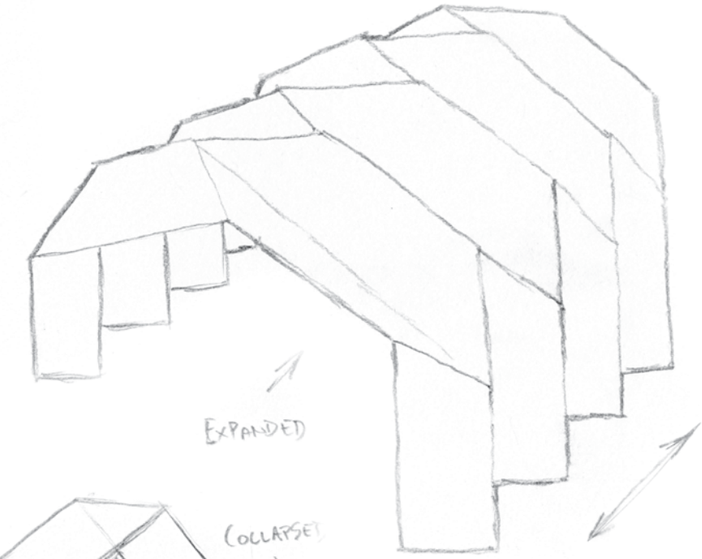


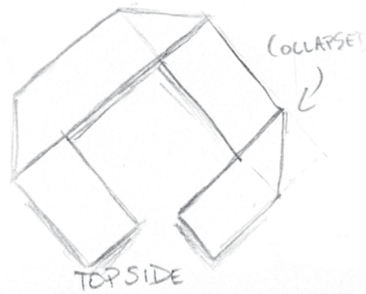
EVAPORATION BALL CONCEPT.

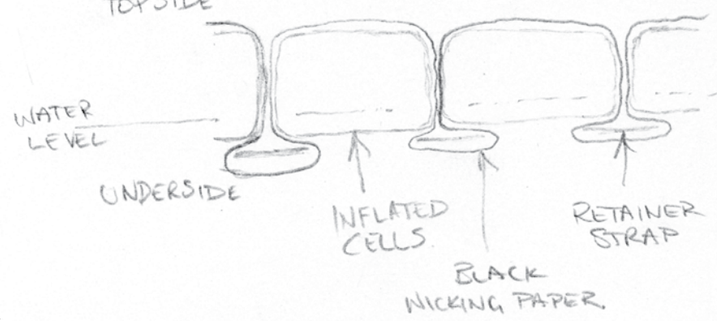












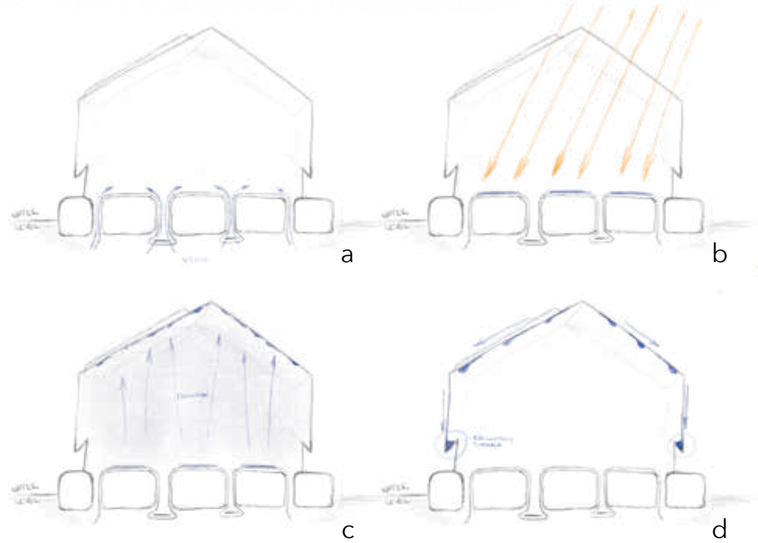
Sketch Development

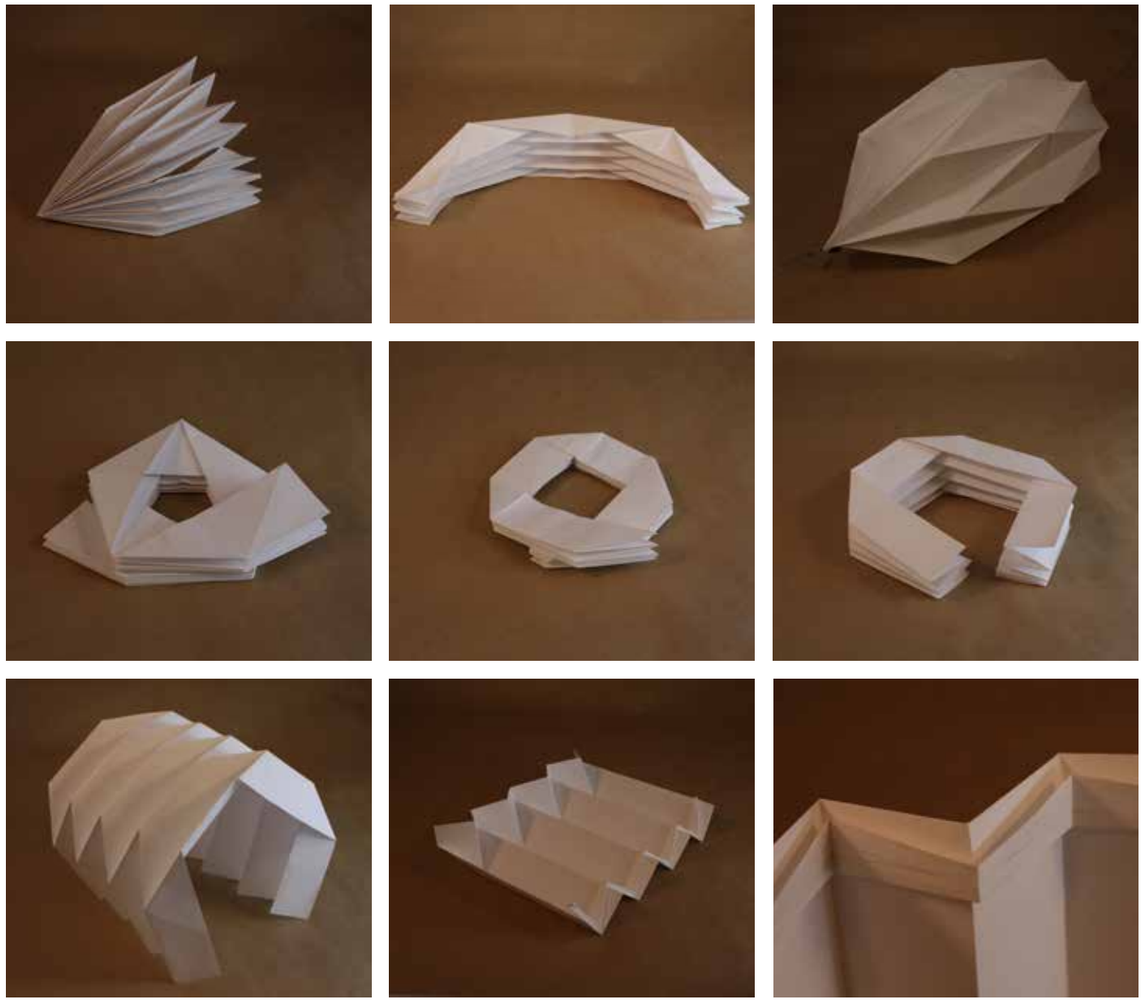
Left: Exploration of form.

Top: Investigation of origami inspired structure that maintains a rigid canopy, yet folds flat when required.

Centre: Flotation layer showing inflated cells interleaved wicking paper that draws liquid up from the water body below.

Right: Water purification process, a. Water is wicked up from below onto the thin evaporation surface, b. The heat of the sun is trapped in the enclosed space causing pure water to evaporate, c. The evaporated steam condenses on the inner surface of the dome, d. Condensed, clean water trickles down the dome into collection channels.





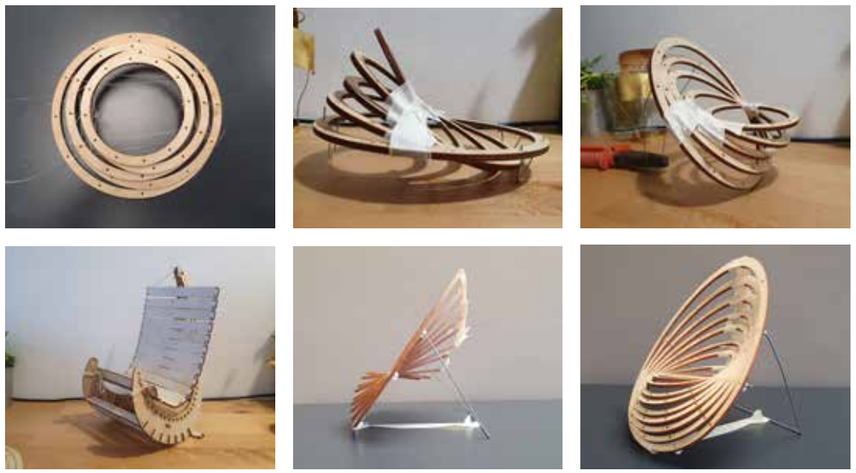
Prototyping
Exploring various origami patterns and geometries to achieve the perfect balance of structural integrity with compactness when folded. Final two images show development of the water collection channel integrated into the lower section of the dome walls.

Assembly
a. Components laid out.
b. Base inflated, wicking paper interleaved with inflation cells.
c. Dome unfolded and attached to base, end plates fitted.
d. Extraction tube fitted to collection channels.

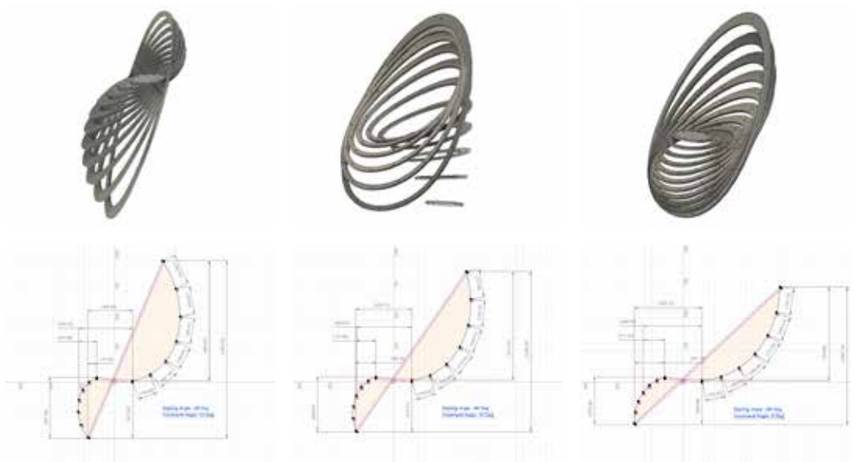
Concentric Chair

Creating 3 dimensions from 2

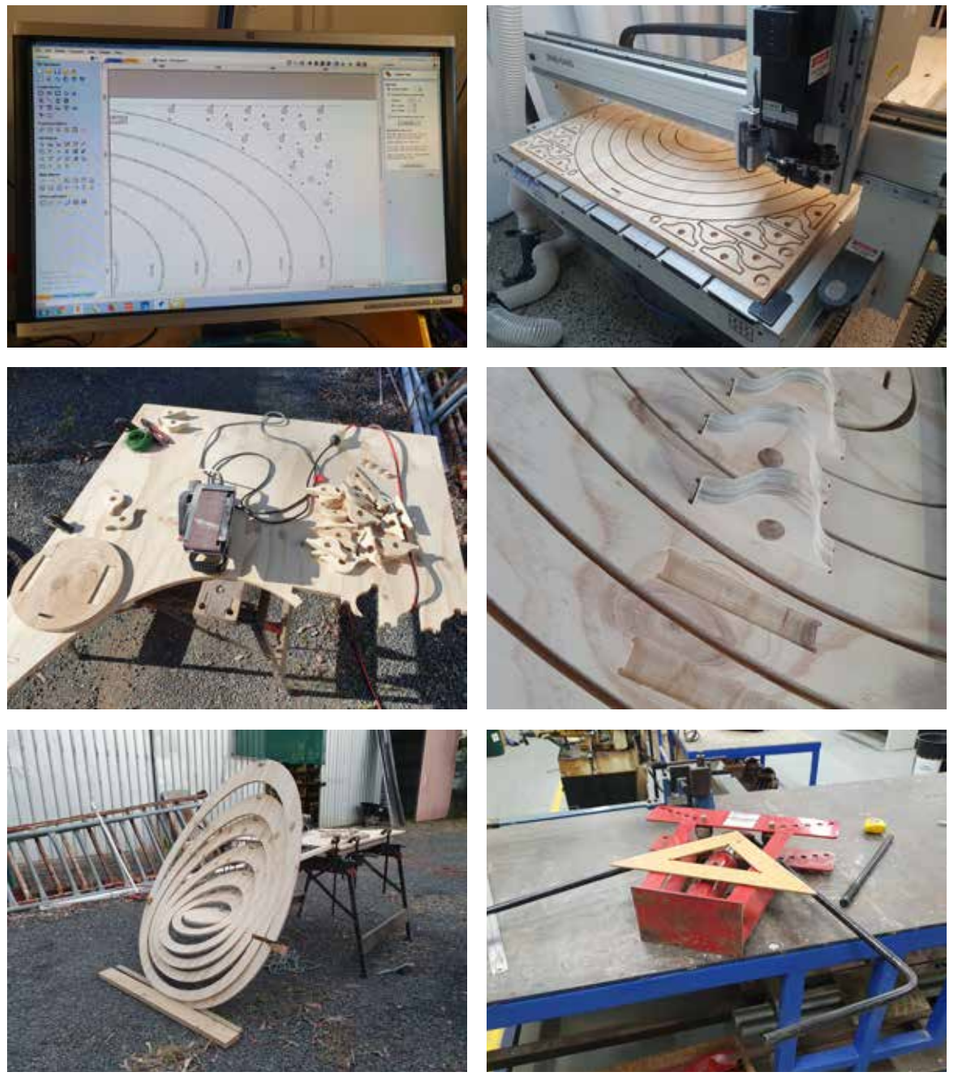
https://www.gerardruttendesign.com/portfolio/concentricchair/



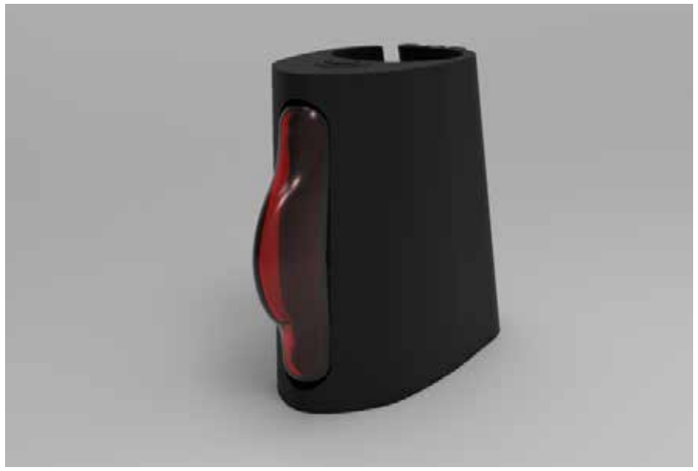
Physical Prototyping
Developing physical models using laser cut timber to explore the concept.



Digital Prototyping
Using parametric 3D modelling software to experiment with different designs and values.



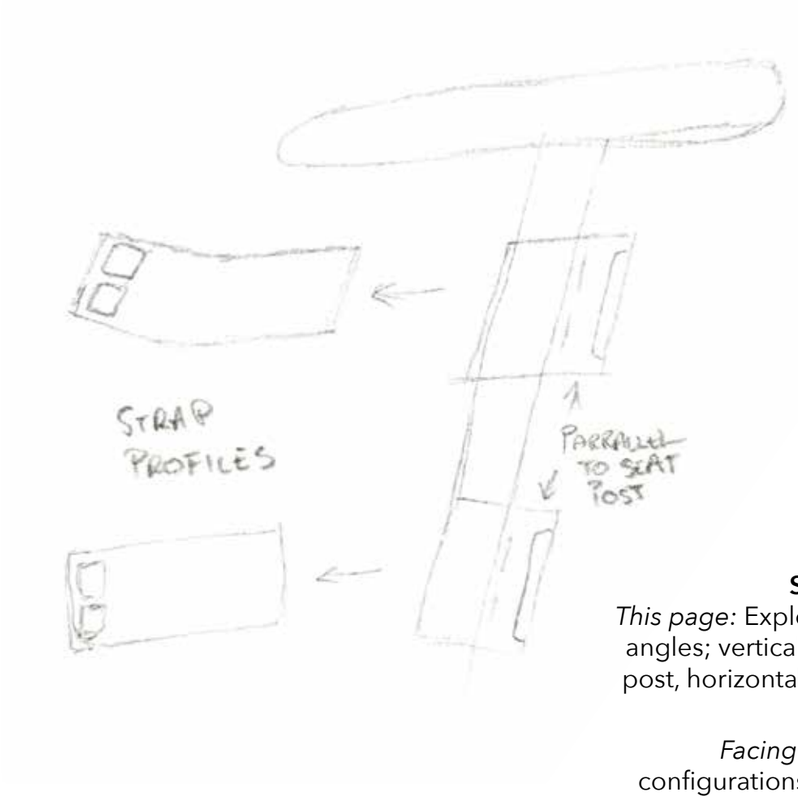
Construction
Using CNC equipment and various hand tools to complete the build.



Bike Light Redesign

Remodeling a bike light based upon the existing internals

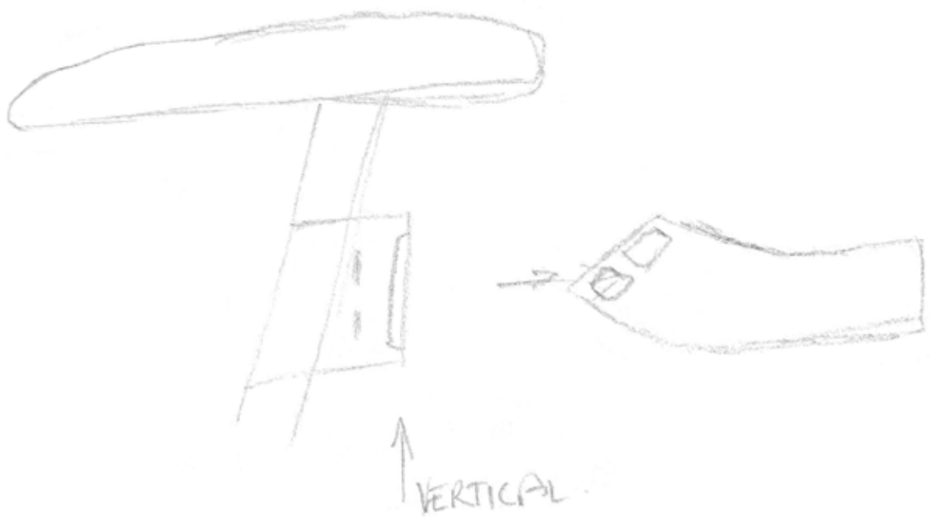
https://www.gerardruttendesign.com/portfolio/bikelight/

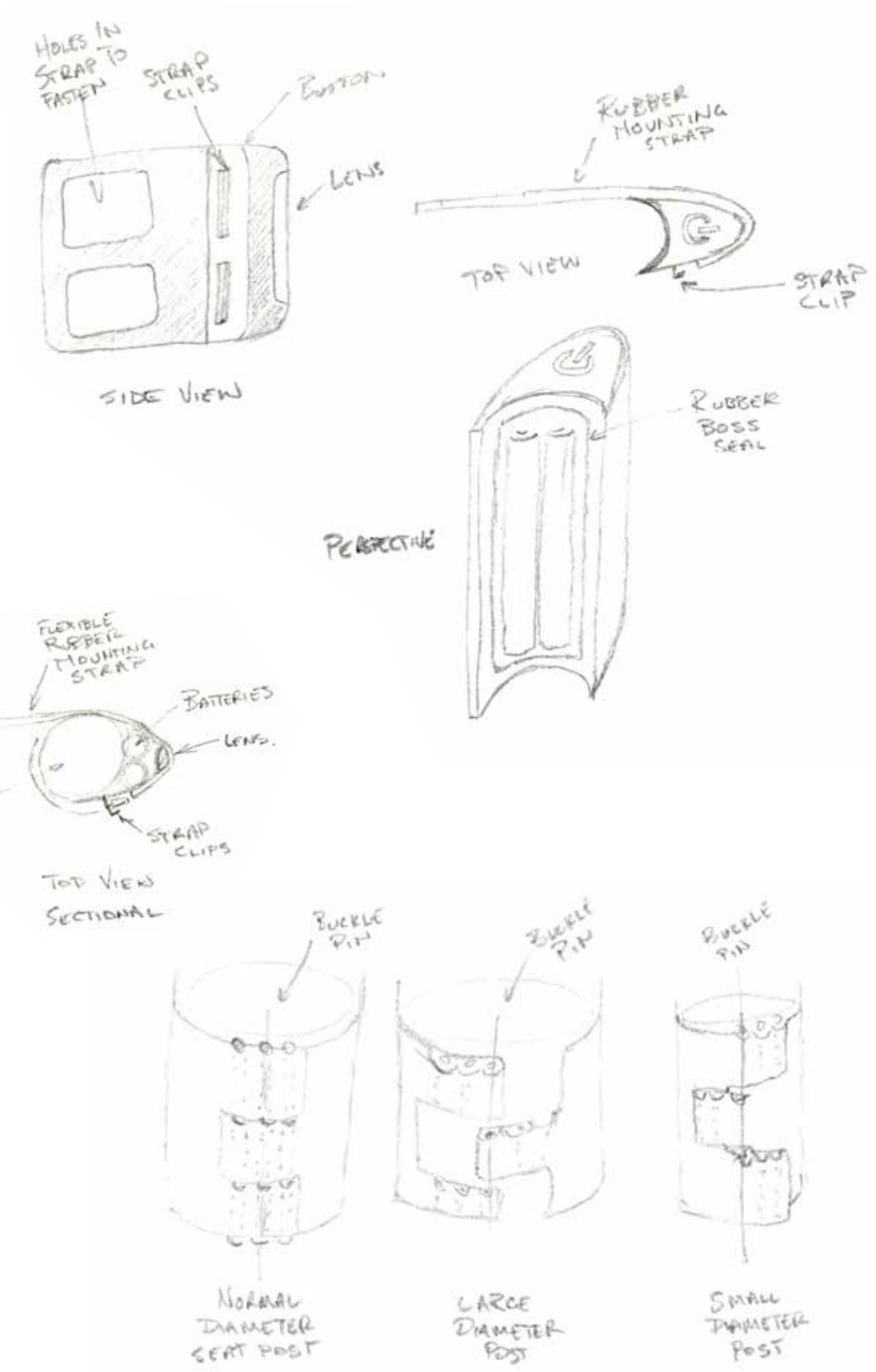


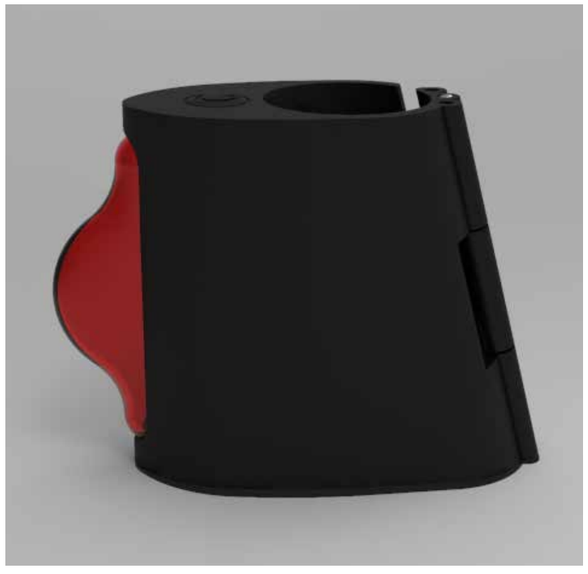
Sketch Development

This page: Exploration of conflicting angles; vertical vs aligned with seat post, horizontal vs perpendicular to the seat post.

Facing Page: Ideating strap configurations and internal layout. Bottom sketch shows adjustable fixing buckle.





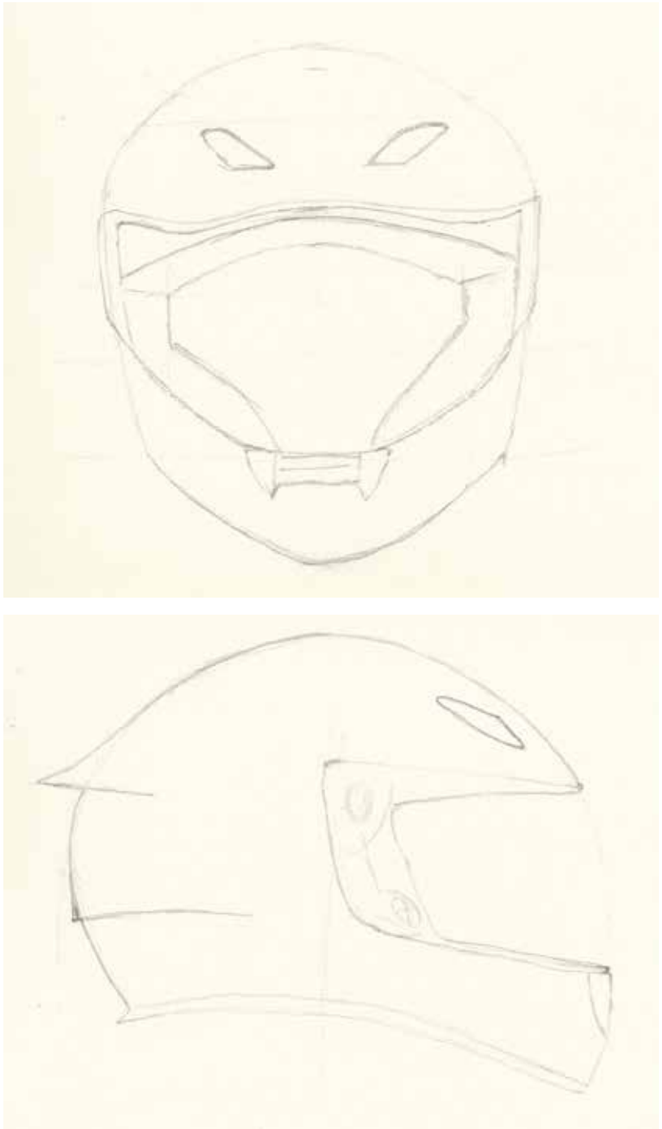



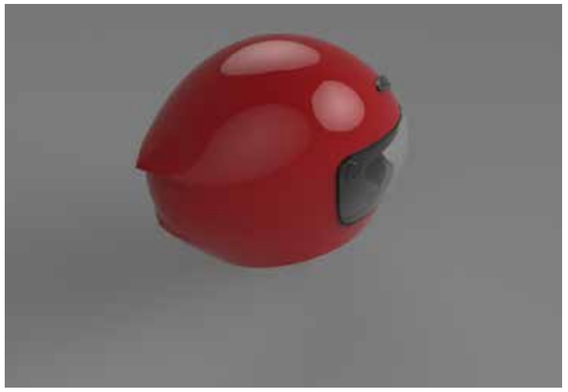




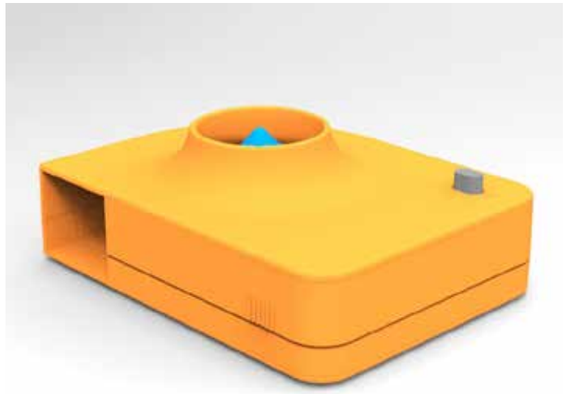


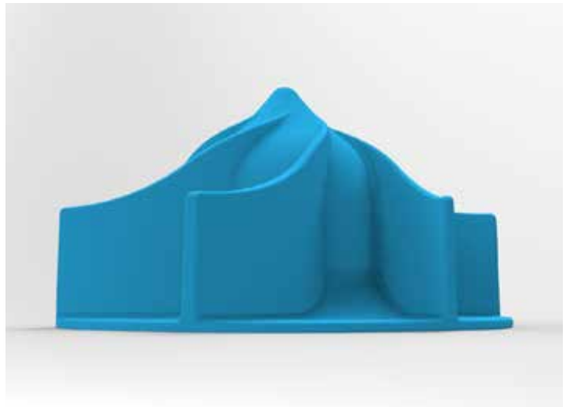

Other Designs

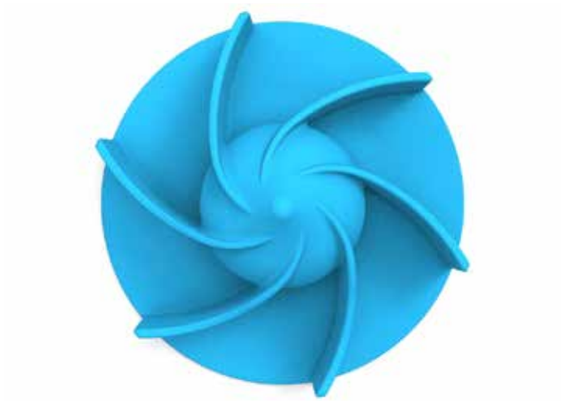


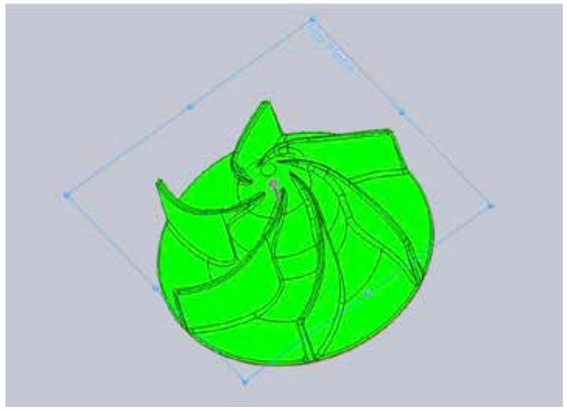


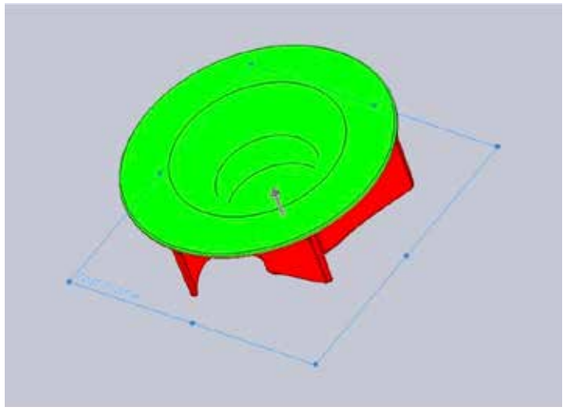
Motorcycle Helmet
Solidworks, Keyshot











Centrifugal Camp Stove Fan
Solidworks, Keyshot

Digital Jewelery
Rhino 3D, Keyshot