LUMA·iD
innovation & development

LUMA-iD is an award-winning design firm that specializes in creating physical products for a diverse range of clients. Our team of skilled designers has a reputation for excellence and innovation, and we are committed to helping our clients bring their visions to fruition.

Why work with us?

- We develop your idea with a range of concepts to review
- We transform concepts into prototype mock ups
- We convert prototypes into production products
- We work with a problem and help suggest solutions through lateral thinking
- We create fast-moving and speedy solutions
- Liaise with our network of UK and far-east suppliers

Our expertise

- Concept design generation
- 3D CAD software
- We bring a wide network and experience and expertise in 3D printing and digital manufacturing
- An experienced, fast moving and laterally thinking team of engineers and designers

LUMA-iD uses sketching and a range of techniques, including 3D printing, rig building, and prototyping, to exchange ideas and bring concepts to life. Our team of experts are proficient in various 3D CAD programs, which we use to ensure the feasibility and realism of our designs and create manufacture-ready parts for our suppliers.

Our hands-on approach and use of advanced technology enables us to deliver high-quality results that meet the unique needs of each project.

Our clients

Since 2012, LUMA-iD has worked with a diverse range of clients, including start-ups, innovators, small and medium-sized enterprises, and global fast-moving consumer goods brands, across multiple sectors. Our commitment to delivering exceptional results has earned us a reputation as a trusted partner for companies seeking to bring their ideas to life.

Contents

Kouo
(Smart headphones)

Sleepa Sloth
(Baby sound machine)

ArcX
(Smart sports ring)

Freefly
(VR Headset)

Rideout
(VR Bike simulator)

Scaffold coupler
(Construction accessory)

2iC Assist
(Military device)

Swymline
(Home sports equiptment)

NASA Orion Spacecraft
(Model for Goodwood)

L-Bow
(Rear bicycle light)

KOUO

"LUMA did a fantastic job to produce a low impedance connector as well as work on packaging a platter of PCB boards and electronics into an MVP prototype"

Shaan Bassi
CEO & co-founder of Kouo

www.kouo.io

Company Overview

Kouo emphasises on mental value rather than quantity, real engagement rather than doom-scrolling, and by making the first tool that can measure our emotional wellbeing.

Product Overview

Kouo is a pair of smart headphones with integrated sensors. This allows vitals to be tracked and can adapt what you hear based on your mood. This means it can purposely delay notifications when stressed, or change your music

Wearable Tech

Problem

Likes, clicks and time spent online shifted our focus to looking outside for feedback. We measure success based on the external while losing track of what's happening inside.

Solution

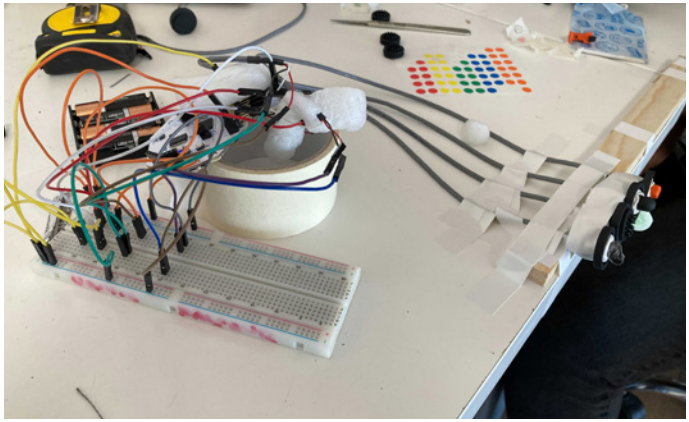
Kouo measures our emotional wellbeing and can adjust how and when we are given information. I.e. when you are feeling stressed, Kouo will delay recieving stressful email notifications until you are in a calmer state.

Internal Micro Electronics Intergration

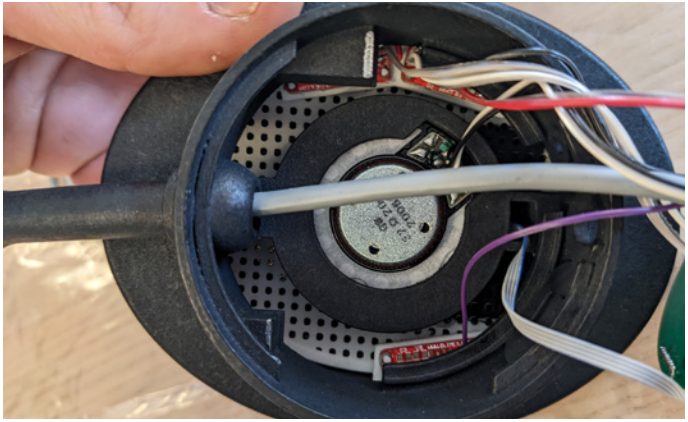
3D Printed Prototype

Full Product Dev Cycle

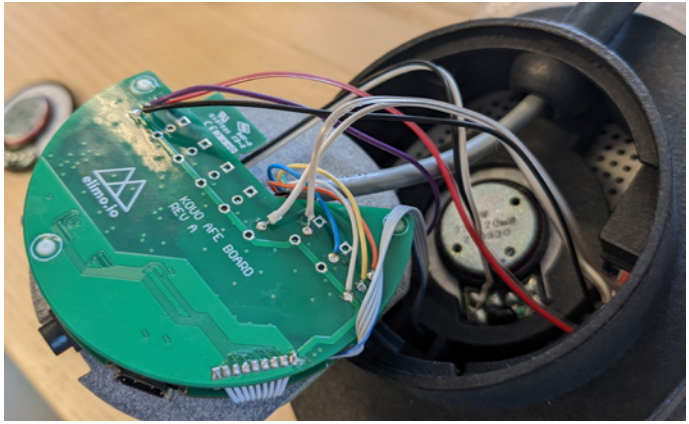
3D Printed Housing



Experimenting with most conductive materials for sensors



SLS 3D print testing for assembly



Testing of PCB inside ear cup


KOUO


KOUO

SLEEPASLOTH

"The prototype has done really well, it worked perfectly to allow us to reprogram a bunch of stuff and refine the functions from product design "

Laurene Mosely
Co-founder of Sleepa Sloth

www.sleepasloth.com

Company Overview

SleepaSloth is made by parents for parents to help families get the sleep they need. It was inspired from the struggles of the founders struggling to get their newborn son to sleep.

Product Overview

A portable baby sound machine that allows custom voice recordings to be sent from your smartphone to the SleepaSloth. It also features a nightlight, volume control and is rechargeable.

Consumer Electronics

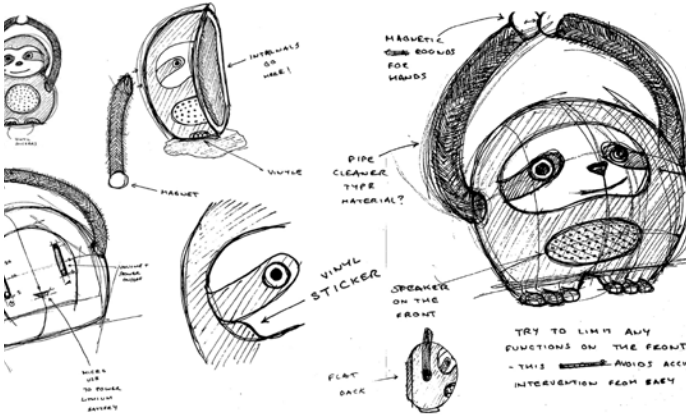
Problem

1 in 3 new mothers struggle to get their baby to sleep and 70% of parents lose a staggering 133 nights of sleep in their first year. Each child is different and responds to different sounds.

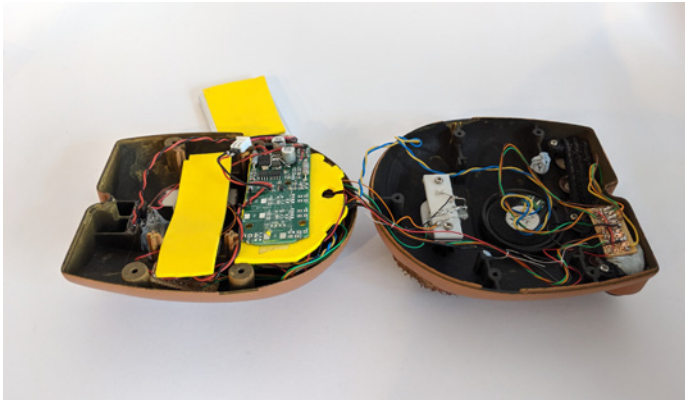
Solution

SleepaSloth allows users to record custom sounds via their smartphone, and immediately upload it to this baby sound machine, which allows storage of up to 6 custom sounds.

Prototype Development | 3D Printed Prototype | Internal Micro Electronics Intergration



Initial sketch ideas



Internals with Raspberry Pi Zero

Prototyping with 3D Prints


SleepySloth

"I really enjoyed the collaborative process with LUMA. They have great creative flair and always hit deadlines"

Paul Blair DSO
CEO & Founder of ArcX

www.arcx.fit

Company Overview

ArcX products mix iconic design with inherently useful technology. Inspired by adrenaline and experience, every detail is engineered to perfection and crafted to last.

Product Overview

Luma helped ArcX realise their idea from initial sketches and storyboards to a first functional prototype, embedding microtech and ready for focus group testing.

Wearable Tech

Problem

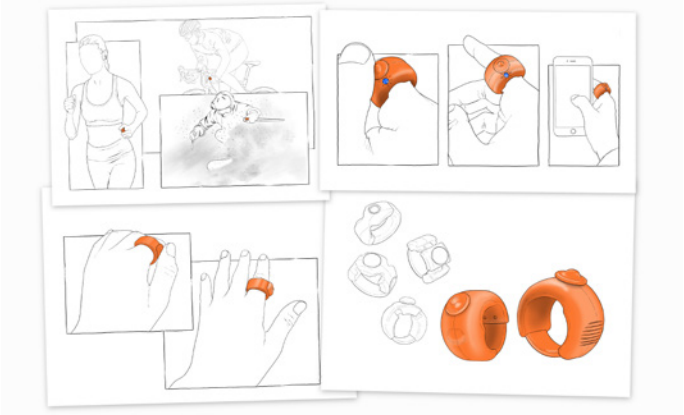
When exercising, (whether that be; running, weight lifting, or outdoor adventure sports), it is not always easy to control your music from your phone or headphones/earphones.

Solution

ArcX connects to devices via bluetooth and is worn on your finger like a ring. The smart ring allows users to easily control their music with only their thumb, even when wearing gloves.

Prototype Development | Custom PCB design (Outsourced)

3D Printed Housing | Internal Micro Electronics Intergration



Initial conceptual sketch development.

Iterative prototype development.

Prototype deliverables for user testing focus group.


12KG

"In 12 months, LUMA turned my headset problem into production ready design."

Jonathan Tustain
Head of technology at Proteus VR Labs

www.proteus-vr.com

Company Overview

Proteus VR labs are the creator of high-end mobile VR experiences utilising the power of the mobile phone and making the VR experience as accessible as possible.

Product Overview

The Freefly VR headset designed to fit any mobile phone, and with three simple stages allow customer to turn a 2D screen into a fully interactive and immersive 3D VR experience.

Wearable Tech.

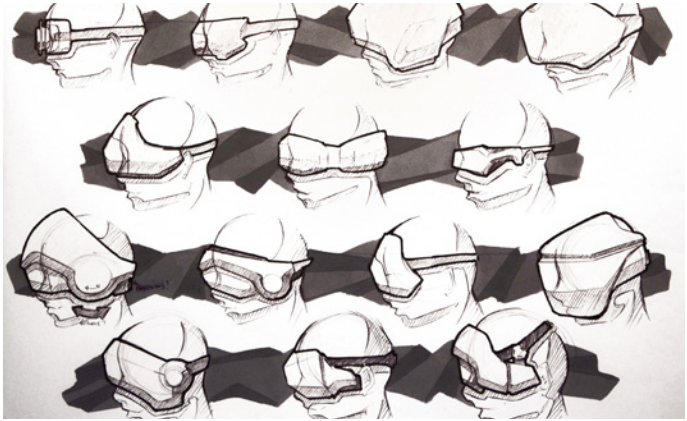
Problem

Phones come in every size (length, width & depth) that you can imagine. They also have raised buttons and ports in every different position you can imagine.

Solution

The design of the Freefly VR headset has the ability to adjust its phone locking position automatically. Keeping this lightweight, easy and intuitive to use was the big challenge for this project.

Full Product Dev Cycle | Pad Printing | 3D Printed Prototype | Injection Moulded Housing



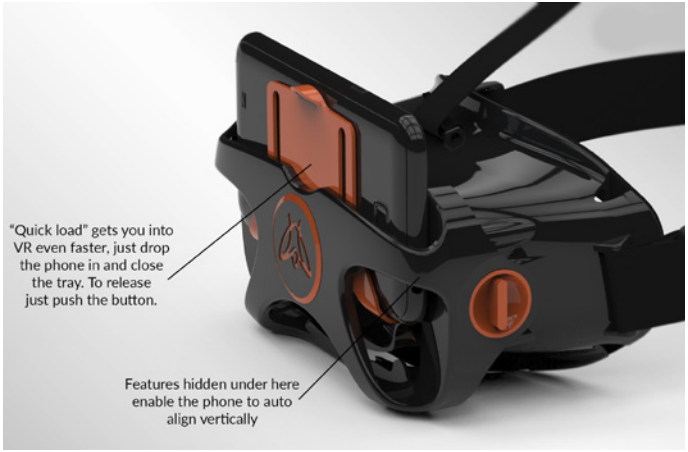
Concept sketching

Variations of detailing on front plate

Prototyping


FREEFLY VR


FREEFLY VR


"Quick load" gets you into VR even faster, just drop the phone in and close the tray. To release just push the button.
Features hidden under here enable the phone to auto align vertically

REWIND

"The LUMA team have incredible technical skills and were able to help our idea come into fruition"

Neil Evely
Head of business development at REWIND

REWIND

www.rewind.co

Company Overview

REWIND is a real-time spatial experience company. The team brings the physical and digital worlds closer together to create spatial experiences that people love.

Product Overview

The Danny Macaskills VR simulator gives people the chance to experience the death-defying stunts performed by the famous cyclist in full virtual reality.

Virtual Reality

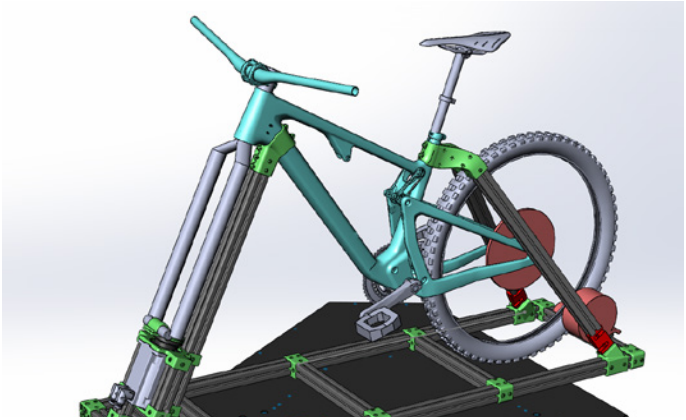
Problem

REWIND required a rapid turnaround of a bespoke mounting system for the Santa Cruz / Danny Macaskills experience; featuring steering and pedal force feedback which had to integrate with their electronics and VR software.

Solution

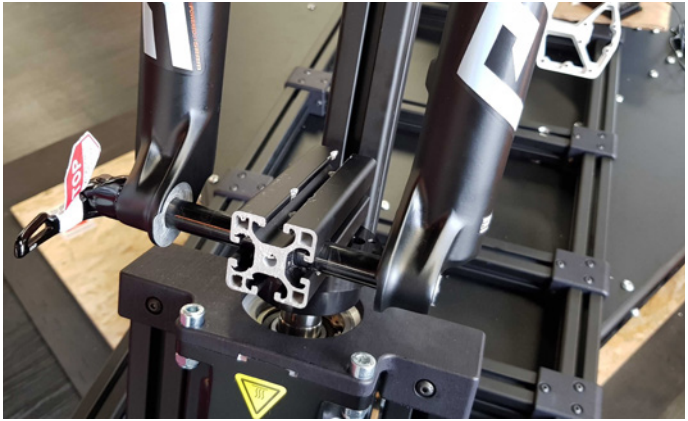
An aluminum extrusion frame bolted together with 3dprinted nylon brackets, creating a sturdy chassis to mount the bike. Full CAD simulation of the rider was required to test the ergonomics.

Bespoke Product Dev | SLS 3D Printed Components | Aluminium Extrusion | Fast Delivery | Site Installation



Rapid development to design a secure mounting system.

3D visulation used to communicate ideas & development.



The bespoke product was assembled on the installation site.

In association with @danny_macaskill, @santacruzbicycles, and @rideout.amsterdam

Developed for @REWINDco and creative agency @cutmedia

SITE²SAFETY

"LUMA took my problem and produced some incredible design solutions, I am very happy with their services"

Shiraz Dudhia
Founder of Site 2 Safety

www.structemp.co.uk

Company Overview

Site 2 Safety was brought to life by StrucTemp, a structural and temporary works service, with more than 36 years' experience in the construction industry.

Product Overview

The Safety Coupler is a revolutionary scaffolding coupler, bringing a 100 year old piece of equipment into the modern era, improving safety, quality and efficiency.

Industrial Equipment

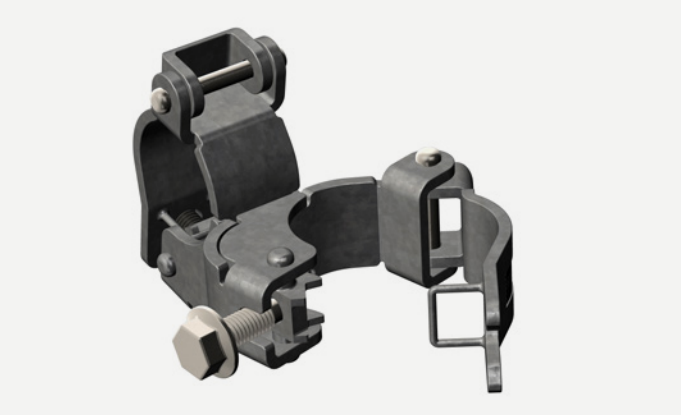
Problem

Millions of scaffolding couplers are used across the world, but the protruding bolts inherent to their function present a severe risk of injury to construction workers.

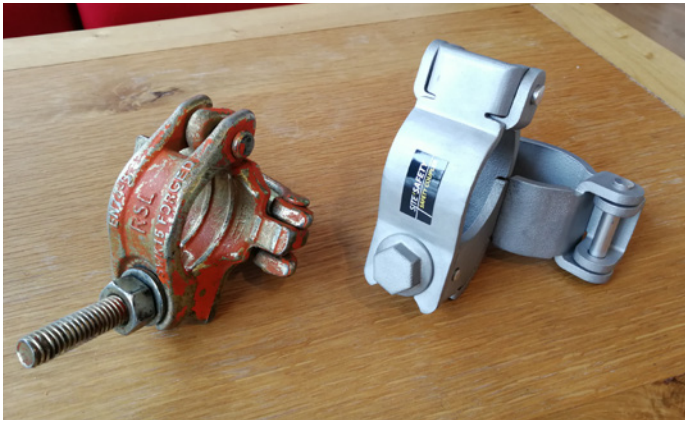
Solution

LUMA worked with Site2Safety to reduce injuries by enclosing the bolt in a metal casing. The design also features a quick-close system, reducing assembly time by 40%.

Full product dev cycle | Design For Sheet Metal Fabrication | 3D Printed Aluminium Prototypes | Vinyl Branded Stickers



CAD was utilised to have the product ready for manfacture.



The Scaffold coupler has seldom changed since its inception.

Fully functionally prototypes made from 3D printed metal.


SITE²SAFETY
SAFETY COUPLER

2iC

"Working with LUMA was fast and efficient, and the outcome exceeded our expectations."

Graham Booth
Chief Executive Officer at 2iC

www.2icworld.com

Company Overview

2iC are experts in digital interoperability in the battlespace. 2iC's unique software connects military commanders, operators and equipment across the land, sea and air.

Product Overview

The 2iC Assist allows soldiers on the battlefield to notify colleagues when they are in distress. The 3 buttons and pull tag correspond to the severity of the situation.

Wearable Tech.

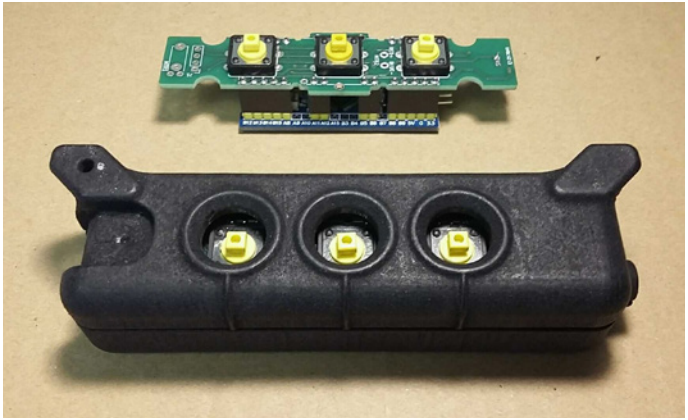
Problem

Soldier safety on the battlefield is vital. If a soldier is on their own and hurt, missing, or captured, there is no way for their squad leader to know the level of distress they are in.

Solution

2iC is an IOT wearable. The pull cord allows a field operator to instantly call for help. It offers 3 configurable buttons to allow the user to take action silently, quickly and effectively.

Full Product Dev Cycle | Custom PCB Design | Software Coding | Designed For Additive Manufcature | 3D Printed Housing



Custom PCB design in-house.

Iterative prototype production across the development of the project.

SWYM LINE

"In less than 9 months, LUMA turned my idea of a swimming bench into full-scale working prototype."

Michael Sturgess
Founder of SWYM Interactive Limited

www.swymline.com

Company Overview

SWYMLINE are re-imagine indoor training, creating an immersive swimming experience, which enables users to be the best they can be, in their own time.

Product Overview

SWYMLINE's equipment pushes users physically with its motion bench, whilst its digital game immersively you in your home workout routine, pushing you to your limit.

Sports Equipment

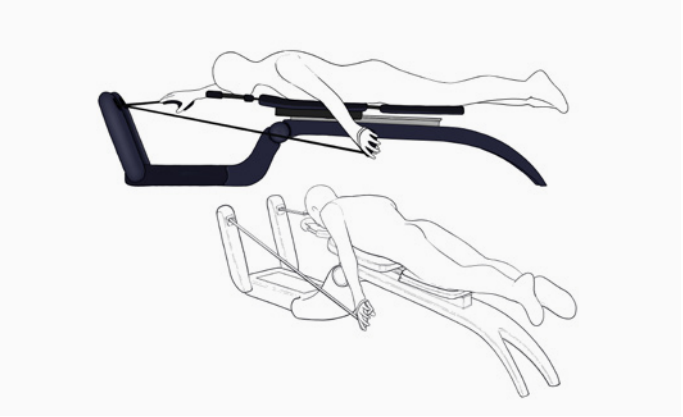
Problem

SWYMLINE was formed when Michael couldn't go to the pool to train, due to the worldwide pandemic. Therefore he wanted to replicate the swimming experience without the need for a pool.

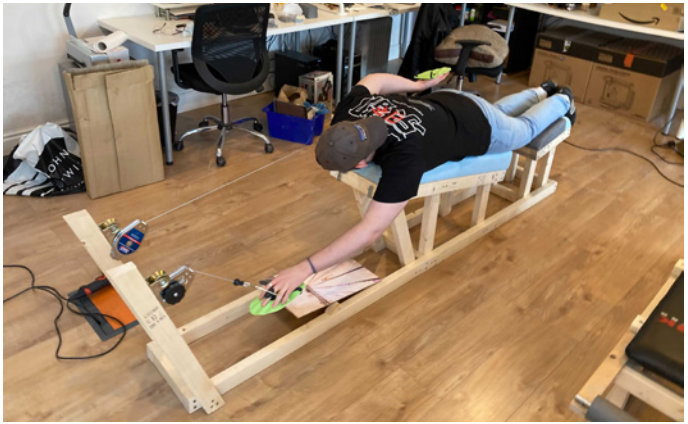
Solution

Michael approached LUMA to develop his idea into a working prototype. LUMA brought his idea to life, from concept sketching and wooden mockups, through to an alumium frame build.

Prototype Development | 3D Visualisation | 3D Printed Components | Designed For Sheet Metal Fabrication

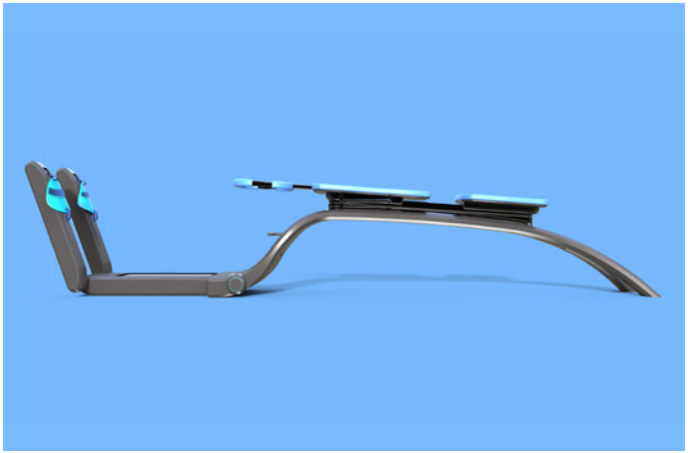


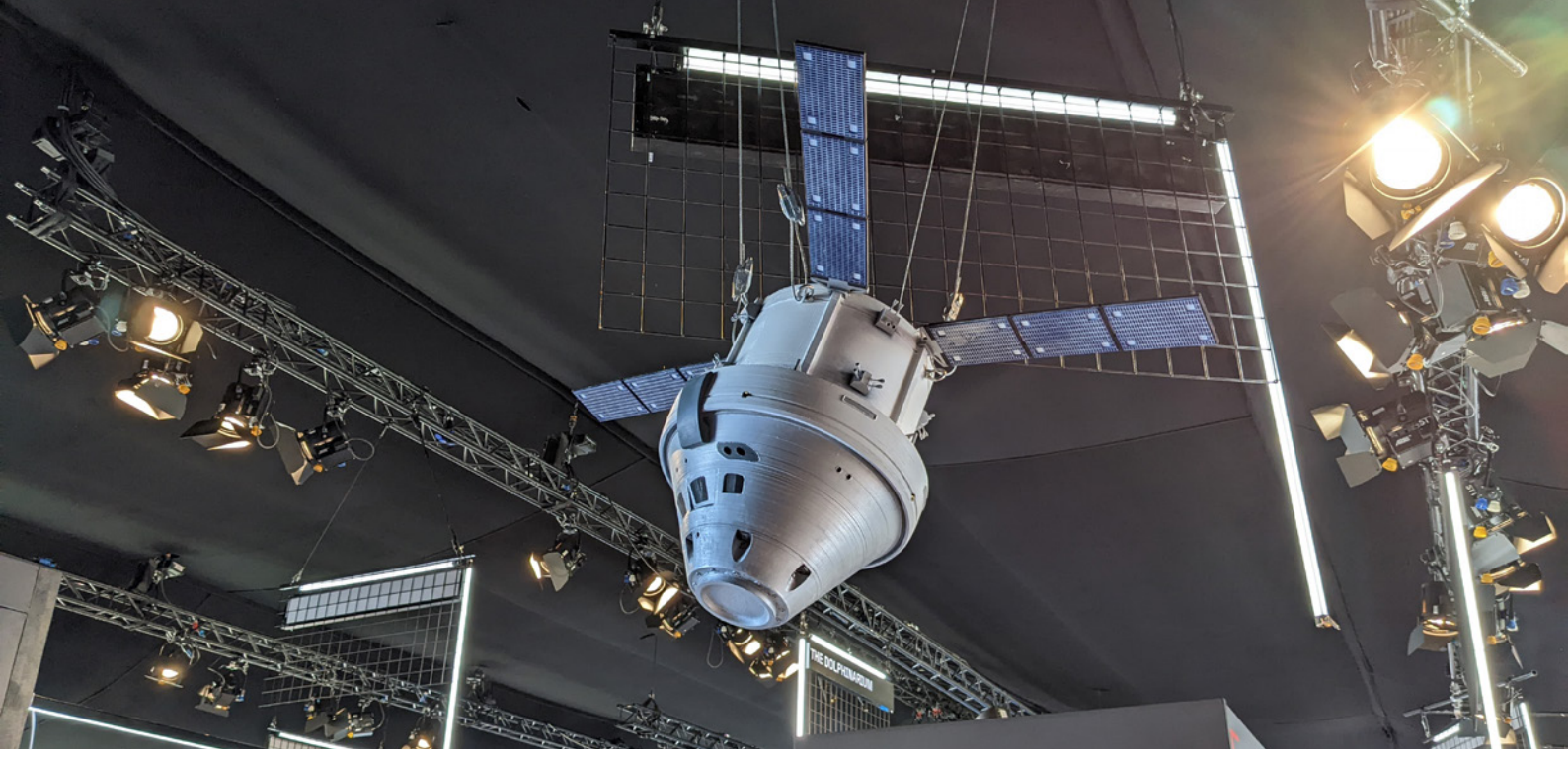
Extract from concept sketches



Testing of prototype

Comparison between different prototype iterations





"LUMA produced an incredible 3dprinted, accurate mock up in under 4 weeks which was used to showcase ESA at Goodwood 2022"

Elena Filippazzo
UK Communication Programme Officer for the European Space Agency (ESA)

www.esa.ent

Company Overview

The European Space Agency (ESA) is Europe's gateway to space. Its mission is to shape the development of Europe's space capability and ensure that investment in space continues to deliver benefits to the citizens of Europe and the world.

Product Overview

NASA and ESA exhibited at the annual Goodwood Festival of Speed, showcasing the new Orion Space craft. We were tasked to create a huge scaled replica of this space craft!

Problem

The ESA needed a cost effective scaled model for the Goodwood festival of speed in 2022. This model had to be detailed, large scale and resemble as close to the original Orion space craft as possible.

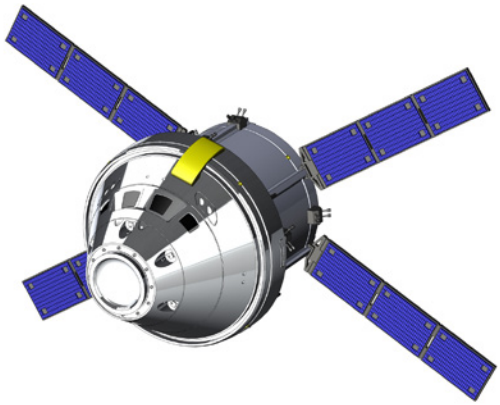
Solution

LUMA used an array of various prototyping techniques, finishes and materials to create a large scale model of the Orion space craft. It was also light enough to be suspended from the ceiling safely.

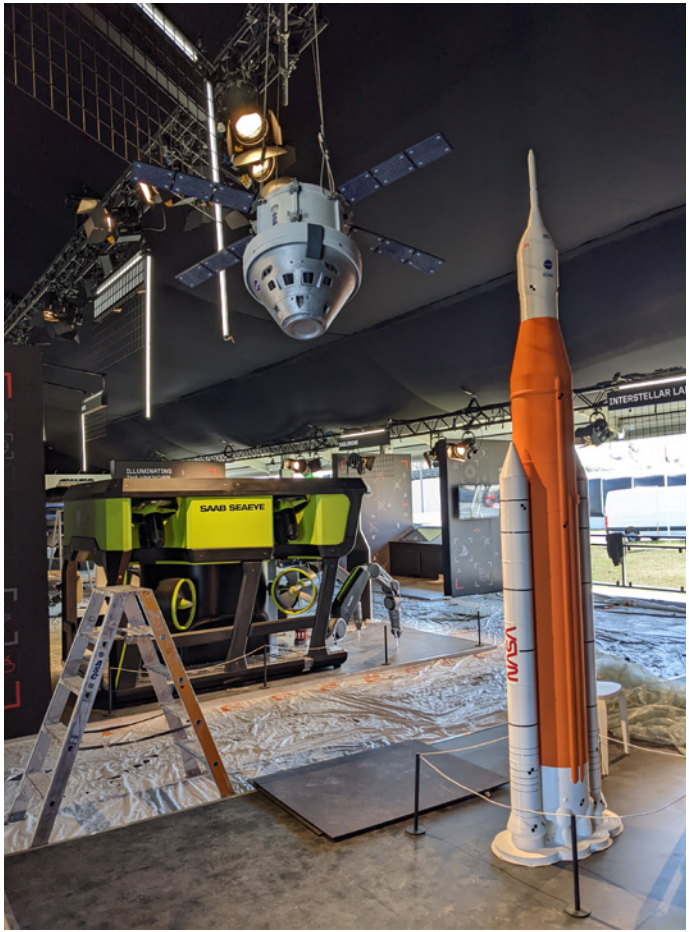
Vinyl Branded Stickers | Site Installation | 3D Printed Prototypes | Bespoke Product Dev

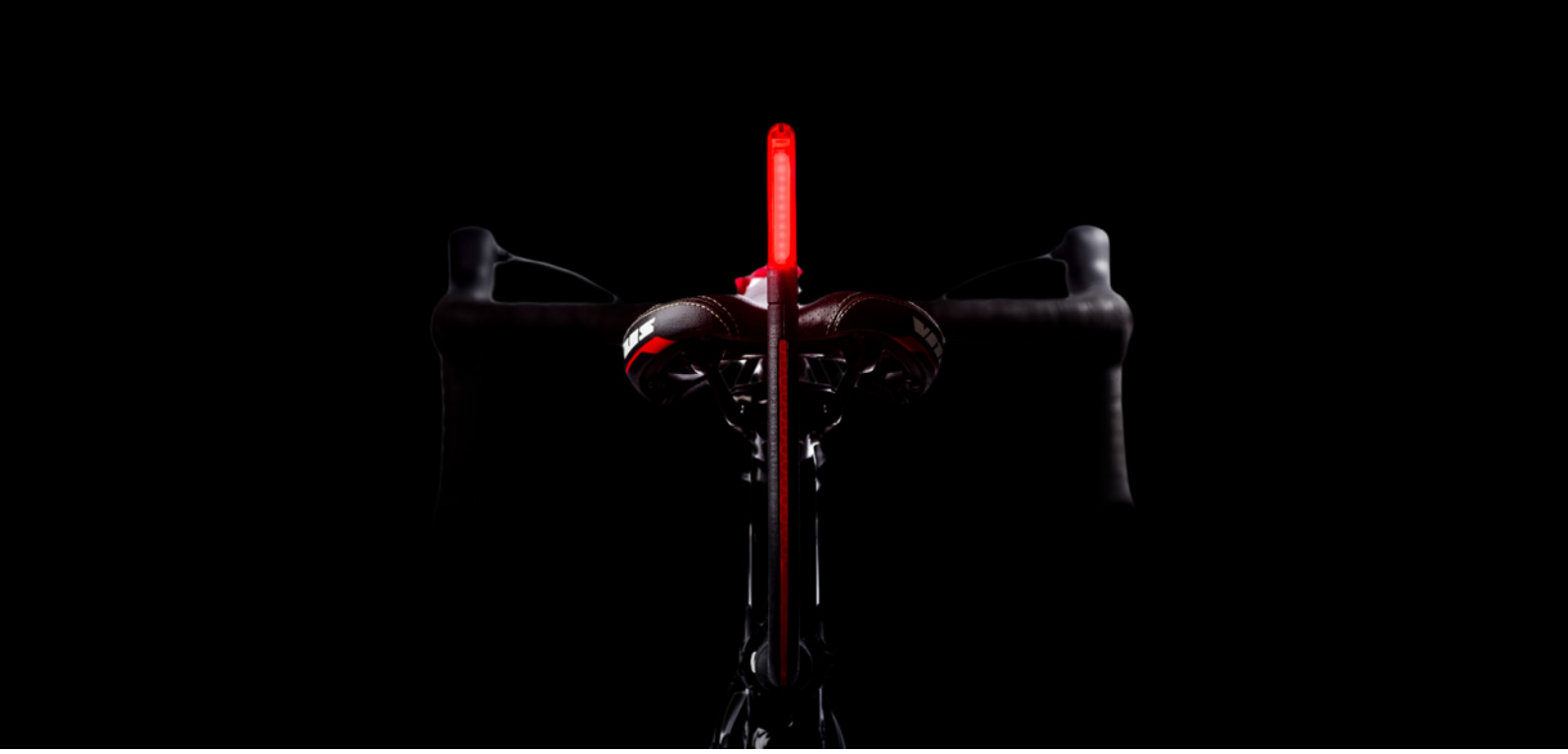
Painting the model

Layout of different parts



CAD model


SAAB SEAEYE
NASA



L-BOW

"I am so glad I found these guys. Their entire design process ensured I made the best decisions"

Sean Whiffin

Director & Founder of L-Bow Bike Lights

www.l-bow.co

Company Overview

L-Bow bike light company seek to provide effortless safety without overwhelming cyclists with controls, aiming to make every bike journey as safe as possible!

Product Overview

The L-Bow rear light makes cyclists appear wider, encouraging cars to give more room whilst overtaking. Cycle safely and give cars the L-Bow.

Consumer Electronics

Problem

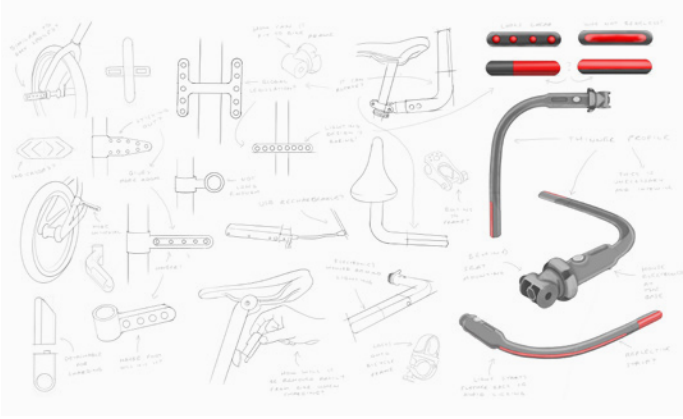
L-Bow came to us with a brilliant concept; offset the rear bike light to give the impression the rider has taken up a bigger space roadside, forcing cars to take a wider birth when passing.

Solution

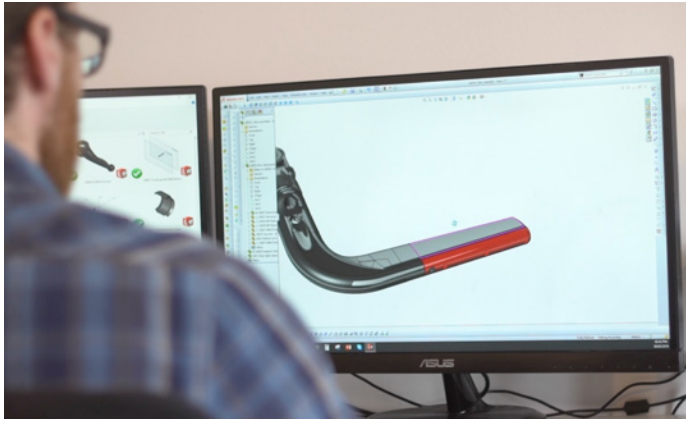
LUMA began working from the brief with Sean from early 2018, developing two models of the L-bow safety bike light, taking the design from concept all the way through to production.

Full Product Dev Cycle | Injection Moulded Housing | Pad Printing | Custom PCB Design | Software Coding | 3D Printed Prototypes

Working together with the L-Bow team during development.



Initial sketch ideas

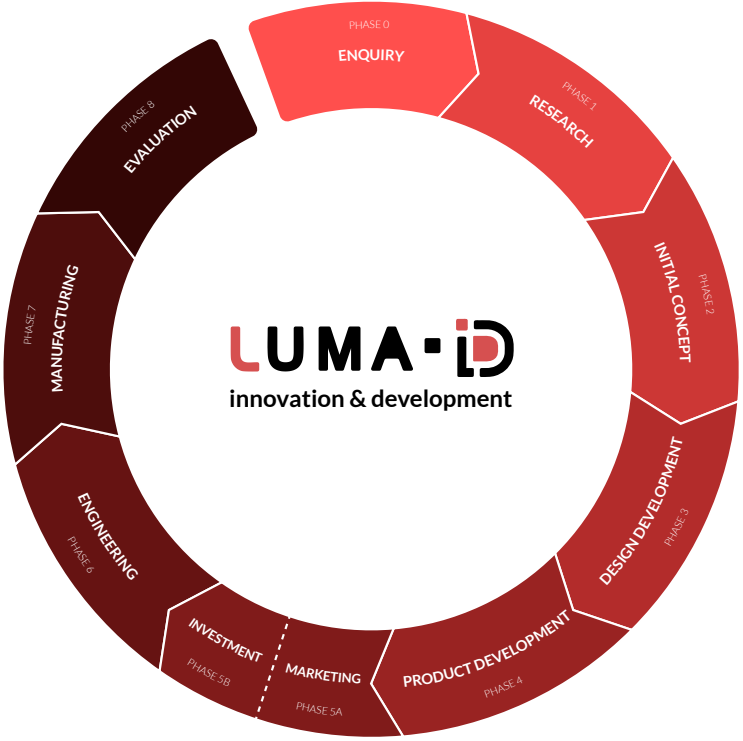


L-Bow 2.0 built on the foundation design of the Mark I.


GARMIN

The LUMA Methodology

This carefully constructed design process is a **guide** which allows us have an holistic approach to any design project. (Note: The design process may vary from from project to project.)



The LUMA Methodology

PHASE 0 - ENQUIRY
Intent: Feasibility of conducting project
Client proposal
Timelines
Budget
Assigned designers
Outcome: Quote/Invoice

PHASE 1 - RESEARCH
Intent: Define the problem
Questionnaires/Surveys
Focus groups
Market research
Ethnography and Observations
New technologies
Research existing products
Precedent
Design Issues Diagram
Future forecasting/Zeitgeist
Mindmapping
User profiles
Problem statement
Outcome: Research presentation

PHASE 2 - INITIAL CONCEPT
Intent: Define a design direction
Brand DNA analysis
Moodboards
Mindmapping
Purchasing existing products
Thumbnail concept sketches
Product Design Specification
Design Brief
Outcome: Design intent presentation

PHASE 3 - DESIGN DEVELOPMENT
Intent: Develop a feasible product
Existing product teardowns
Standards
CMF
Information sketches
Context/usage sketches
Technical sketches
Hi-Fi coloured sketches
Lo-Fi Rapid prototyping (Foam & Card)
Experience prototyping
Intellectual property
Outcome: Evaluation presentation

PHASE 4 - PRODUCT DEVELOPMENT
Intent: Refine product details
Reverse Engineering
3D CAD modelling
Rapid prototyping
Supplier liaisons
Proof of concept prototype
Aesthetic prototype
Outcome: Prototype presentation

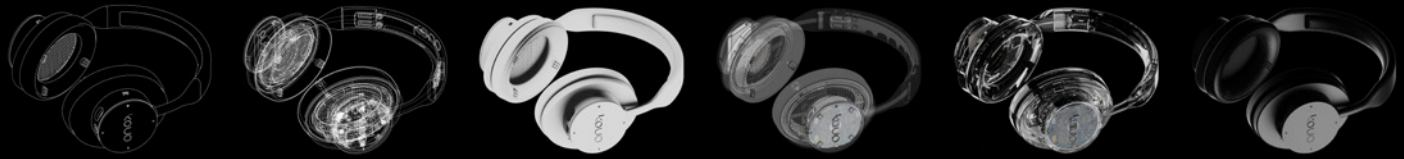
PHASE 5a - MARKETING
Intent: Create public attention for product
3D Visualisations
Photography
Videography
Outcome: Media for pitches and adverts

PHASE 5b - INVESTMENT
Intent: Raise funds for manufacturing
Crowd funding
Angel investors
Outcome: Investment capital

PHASE 6 - ENGINEERING
Intent: Designing for manufacturing
Detailed CAD design
Bill of Materials
General assembly drawings
Technical drawings
Supplier liaisons
Custom electronics/mechanics
Pre-production prototype
Outcome: Testing and evaluation

PHASE 7 - MANUFACTURING
Intent: Production ready products
Assembly instructions
Quality control
Logistics
Shipping
Outcome: Products ready to sell

PHASE 8 - EVALUATION
Intent: Improvements for next version
Public feedback
Cost optimisation
Outcome: Feasibility of conducting project



Web: www.luma-id.co.uk

Email: projects@luma-id.co.uk

Tel: +44 (0) 20 3229 6865

Social: @luma_id

Studio Location:
Studio 1-100, Unit 1
Thames Side Studios
Harrington Way
London, SE18 5NR
United Kingdom

Check out our client reviews here: www.luma-id.co.uk/reviews

Google Reviews Trustpilot