

Dae-eop Kim

Projects Portfolio

Daeop Kim

1 Pager Portfolio



Web Portfolio



Usability Test



Field test



First
Corp Concepts
in the Corp

First social robot
concept



First prototype of
Family hub
(CES 2016)



< 85g
The lightest weight
glasses

AR Glasses
Prototype



VR Headset
Core Experience
Concept



+2%
YOY Marketshare

Galaxy A9s
Chinese Model



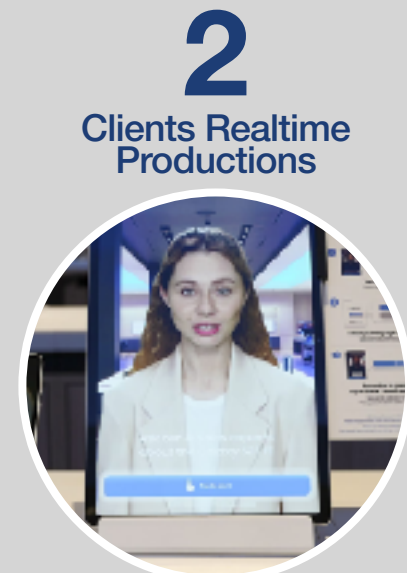
6M+
Youtube views
in a week

Ballie
CES 2020



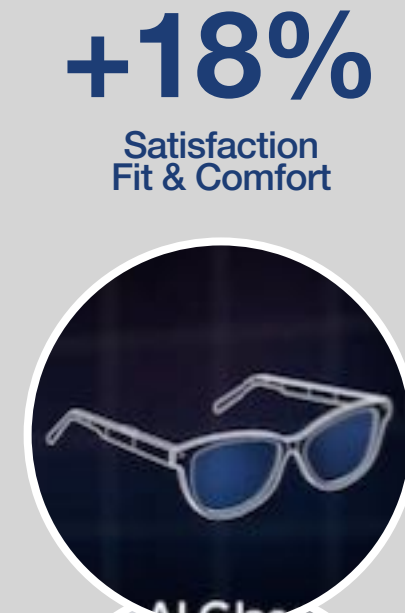
2
Design
Awards

Afterlife



2
Clients Realtime
Productions

Working prototype
NEON
Artificial Human
Service



+18%
Satisfaction
Fit & Comfort



First AI Glasses
XR Platform
Device
Prototype



Manufacturing
AI Glasses Lineups

2004

2013

2019

2020

2021

2023

2024

2025

● Product Researcher

Understanding User and Market Needs and Wants
Qualitative, Quantitative research methodology
Design Methodology for creating new products

● Experience Designer

New mobile phone strategy
Use cases & Design Strategy

● Product Manager

Chinese Market Phone (Design Product Manager)
AR / VR New product development - Product Manager

New AI Service Product Manager (NEON)

AI Glasses Product Manager, fit & comfort design

● Team Manager

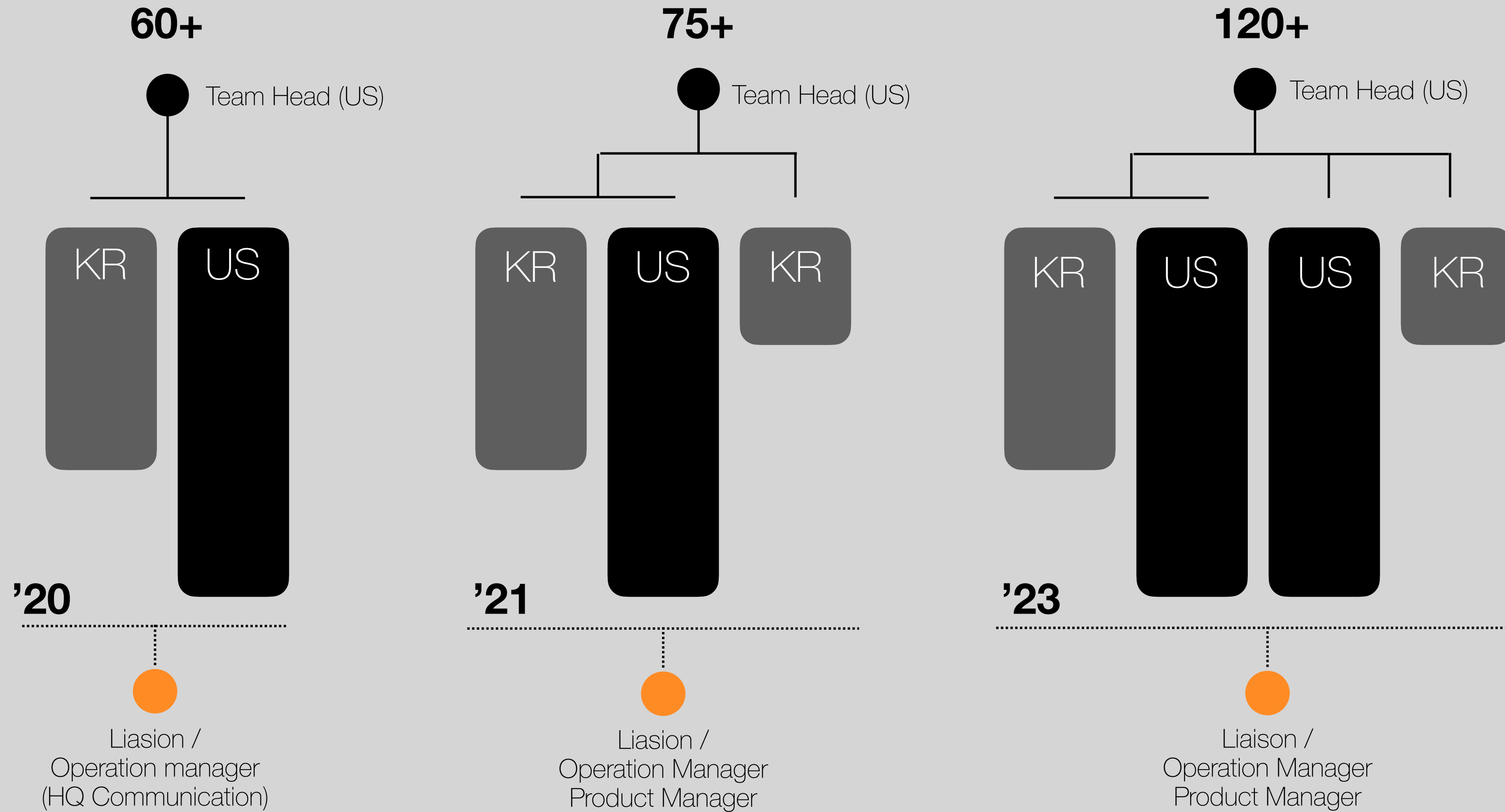
Team program manager (Think Tank Team)
General Manager of team (STAR Labs, NEON)
Budget Ave 16% increase per year for 5 years, Managed 100+ people, Ave 7.2 projects per year delivery on schedule

Product Management (Strategy, KPI, PRD, Metrics, Goals) User Research
Methodology, Design Thinking, Communication (CEO Pitch), Cross functional
Team management, Design management, AI product, Manufacturing

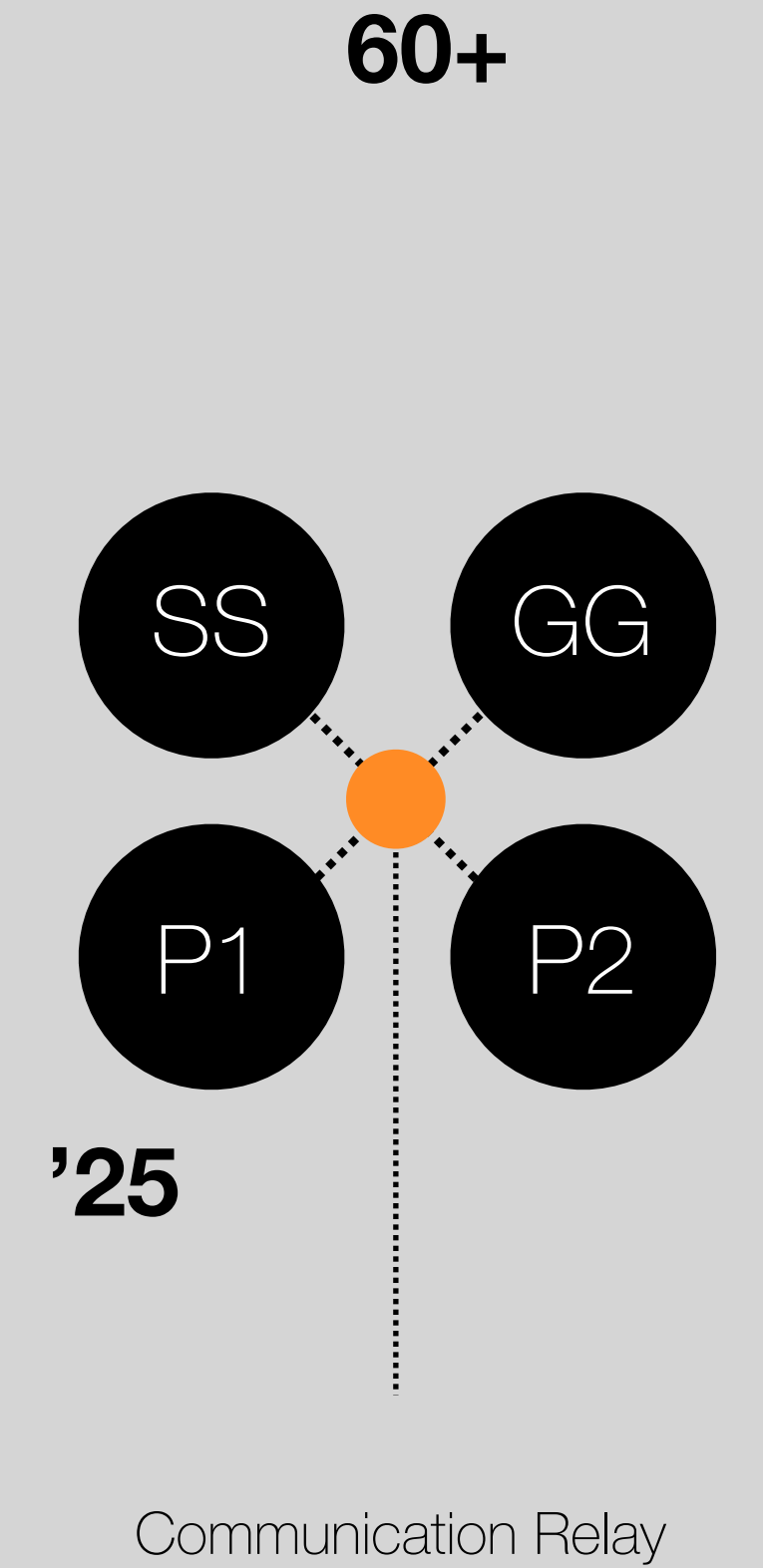
Core Value: Defining meaningful product and guide colleagues to win user mind and market

Team Management Experience

Team operation support Horizontal Team Management

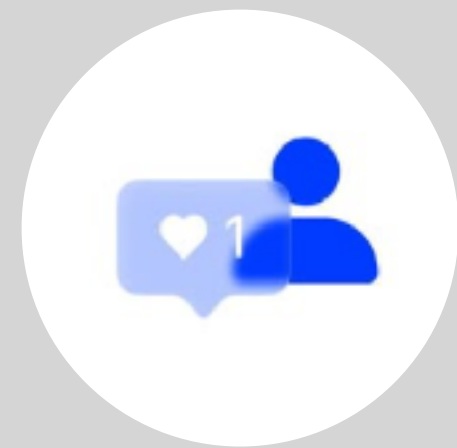


Project Management Communication

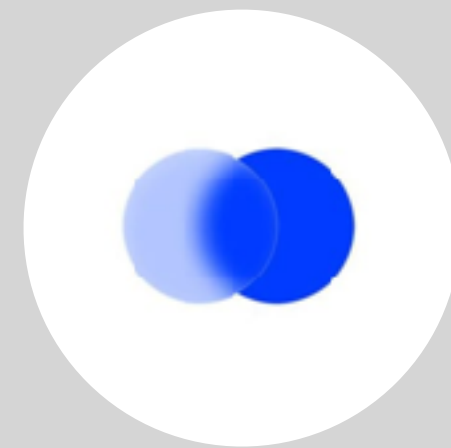


In this presentation, I share my experience and professional mandates,

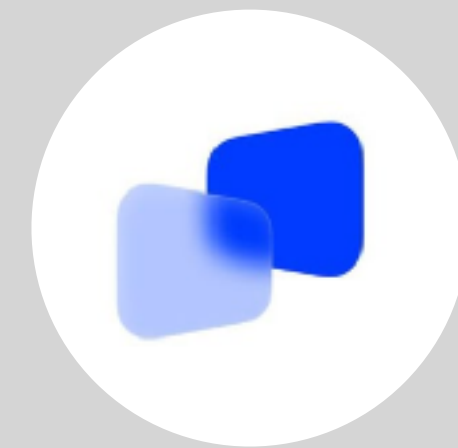
Understanding people's needs on the product.

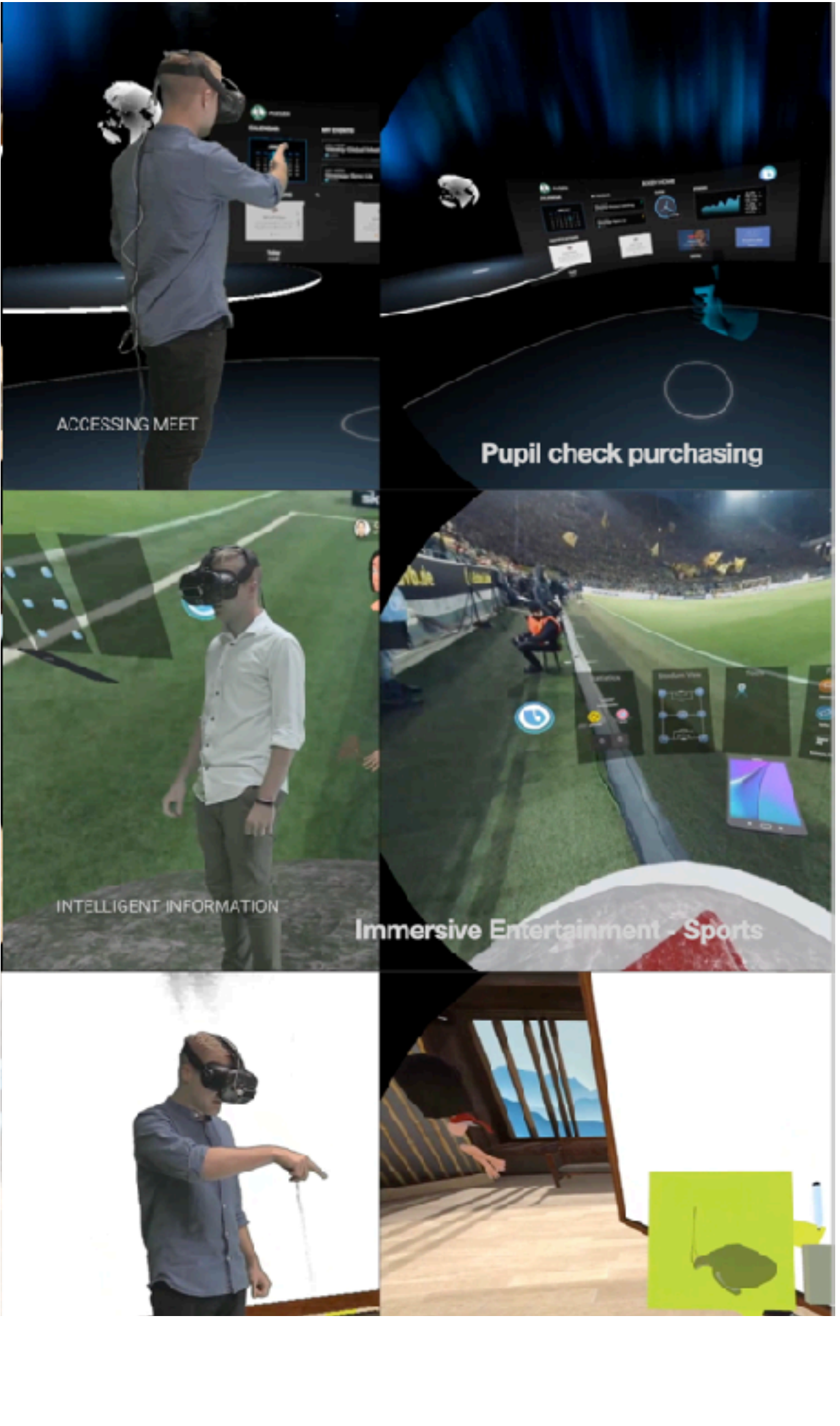
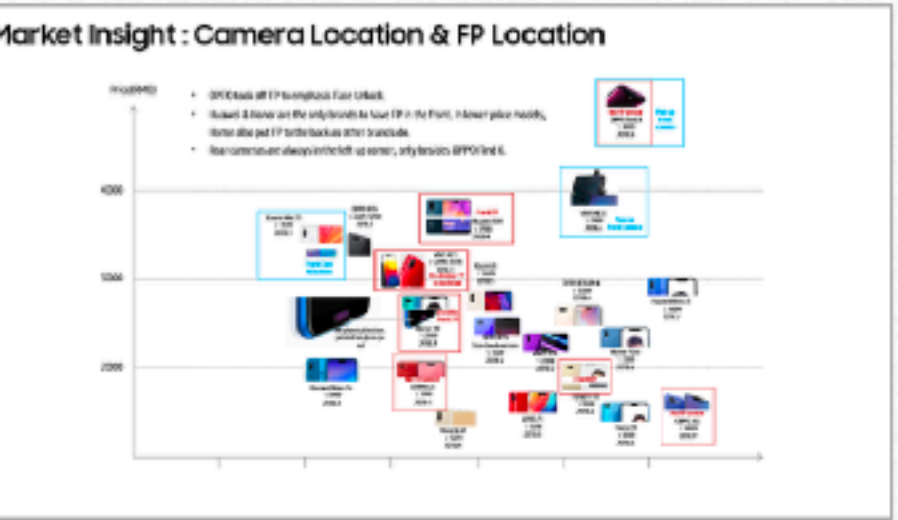
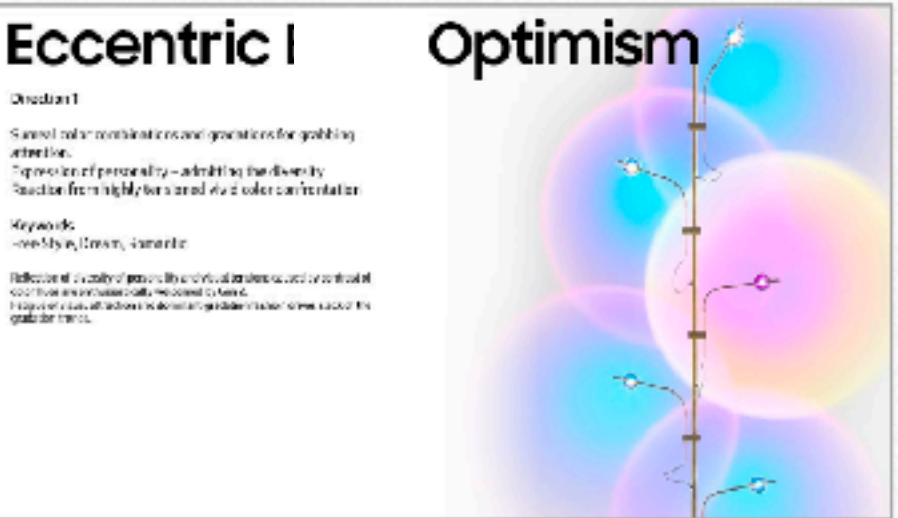
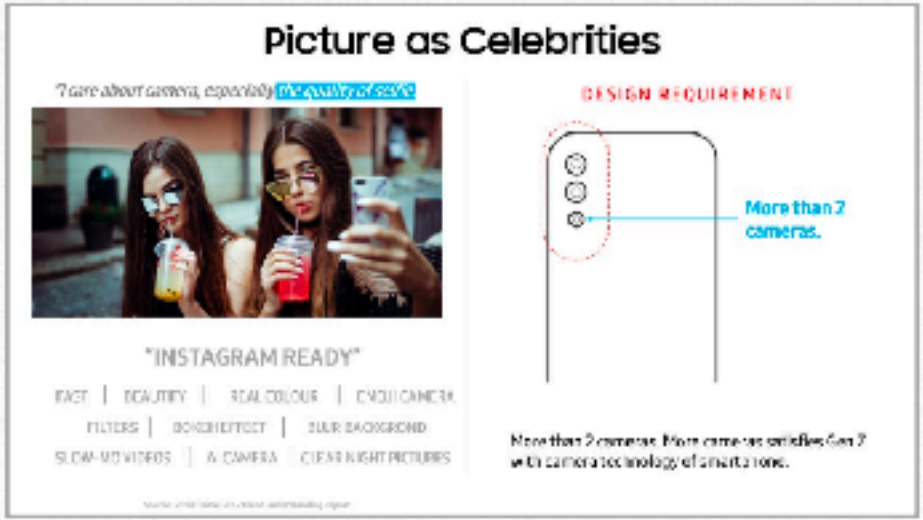
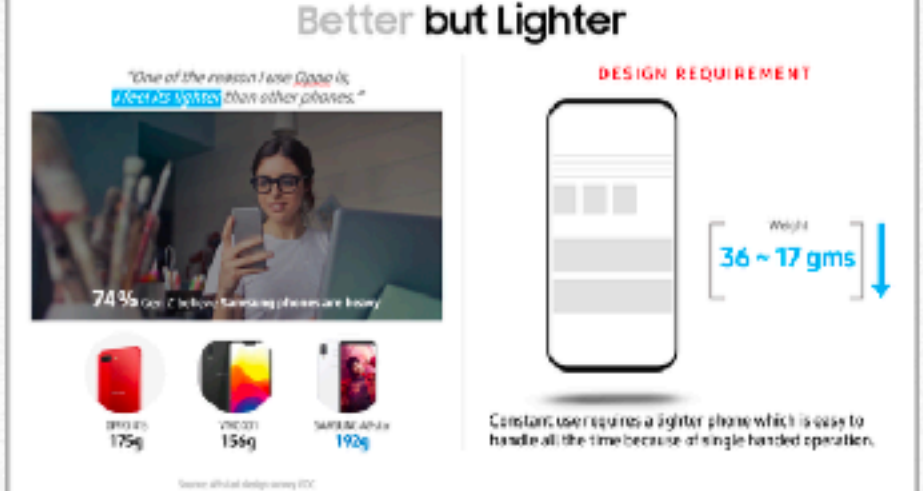
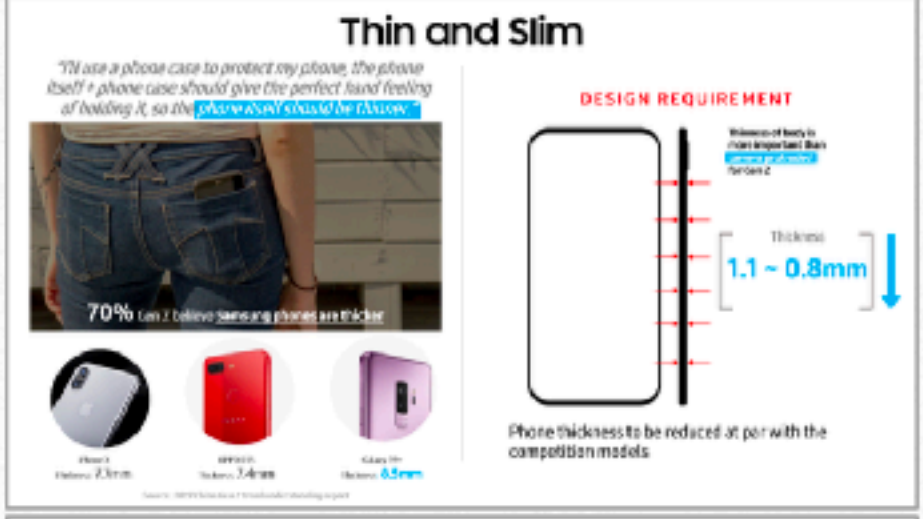
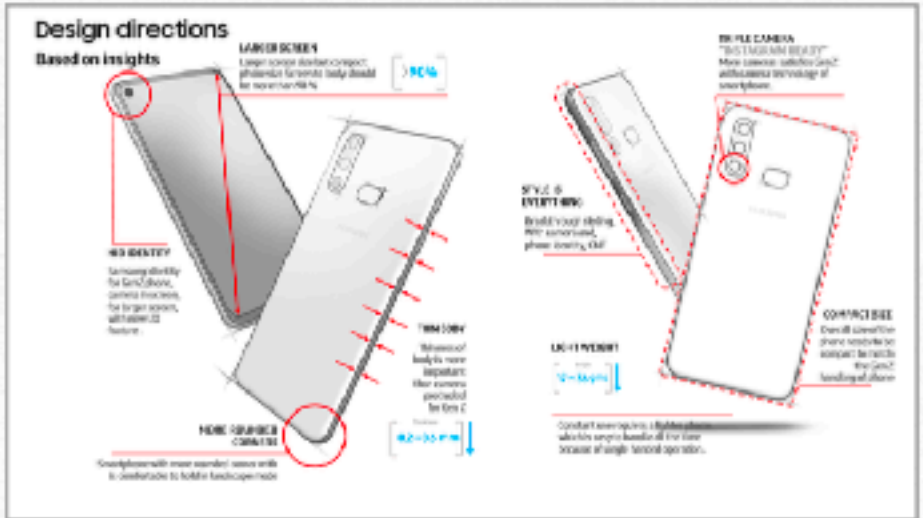
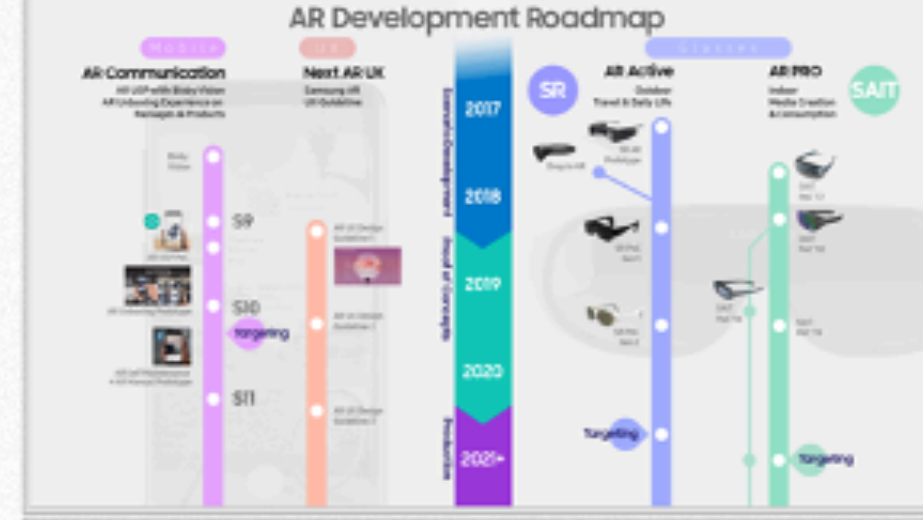
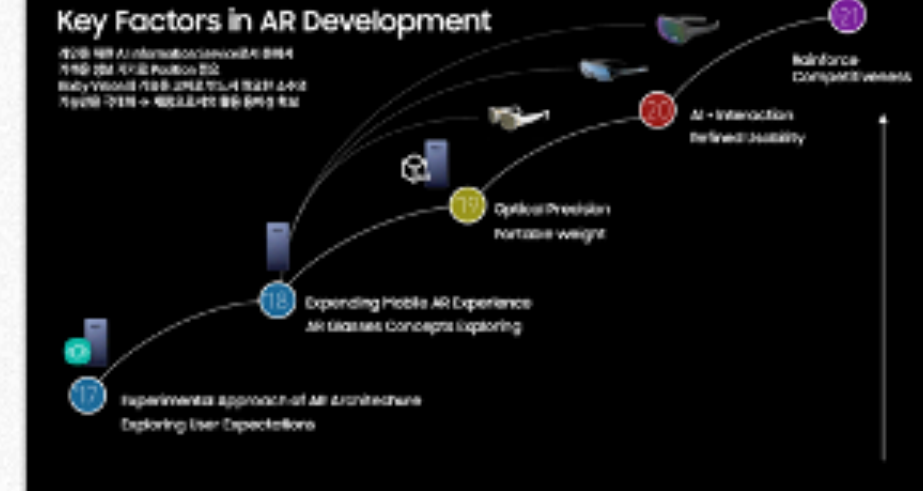
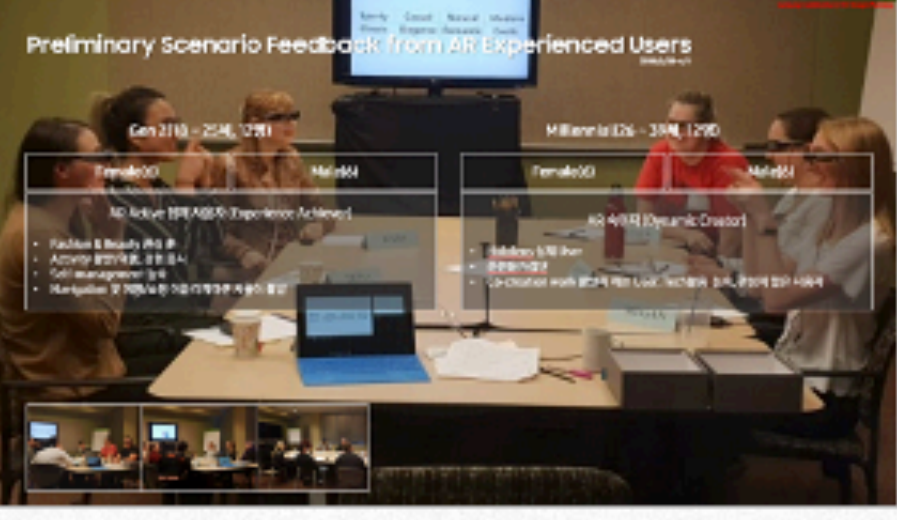


Shaping a product that meets the markets' needs.



Team collaboration to build a product.





Defining Product

Based on the findings of user-centered approach, product direction, requirements, interaction methods, market expectations outlined.

Testing the concept

To study in early stage of the product which is not existing in the market, collaboration with engineers, interface prototyping, interactions for testing.

Decision and deliberation

For decision of manufacturing, building communication strategy for CEO presentation and deliver the pitch for the project budget. Managing productization lifecycle.

Manufacturing and Launching

Defining the sales and marketing objectives, identifying the metrics that will support these objectives, and managing the lifecycle process to manufacture the concept into a profitable product.



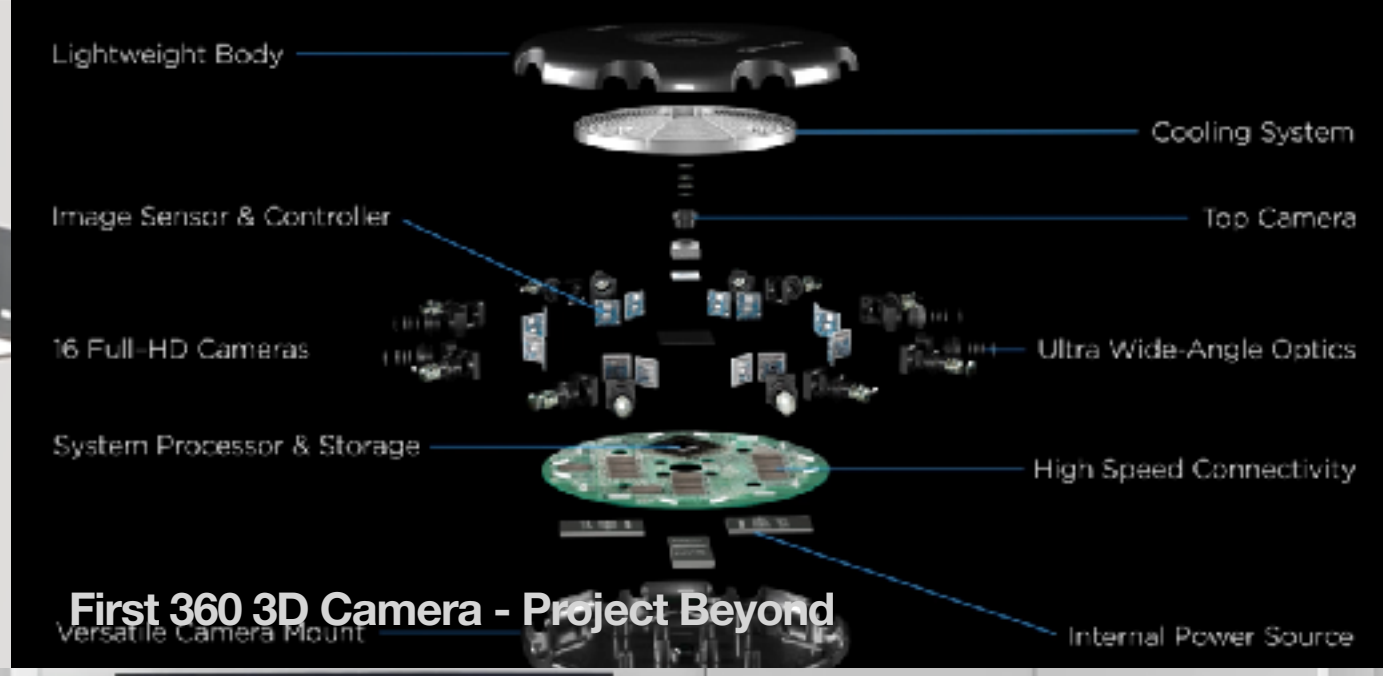
First Home Robot - Otto



First AR AI powered



Camera Based Smart Hood - Aspire



First 360 3D Camera - Project Beyond



Conversational Home Robot Interaction

Samsung MX Think Tank Team

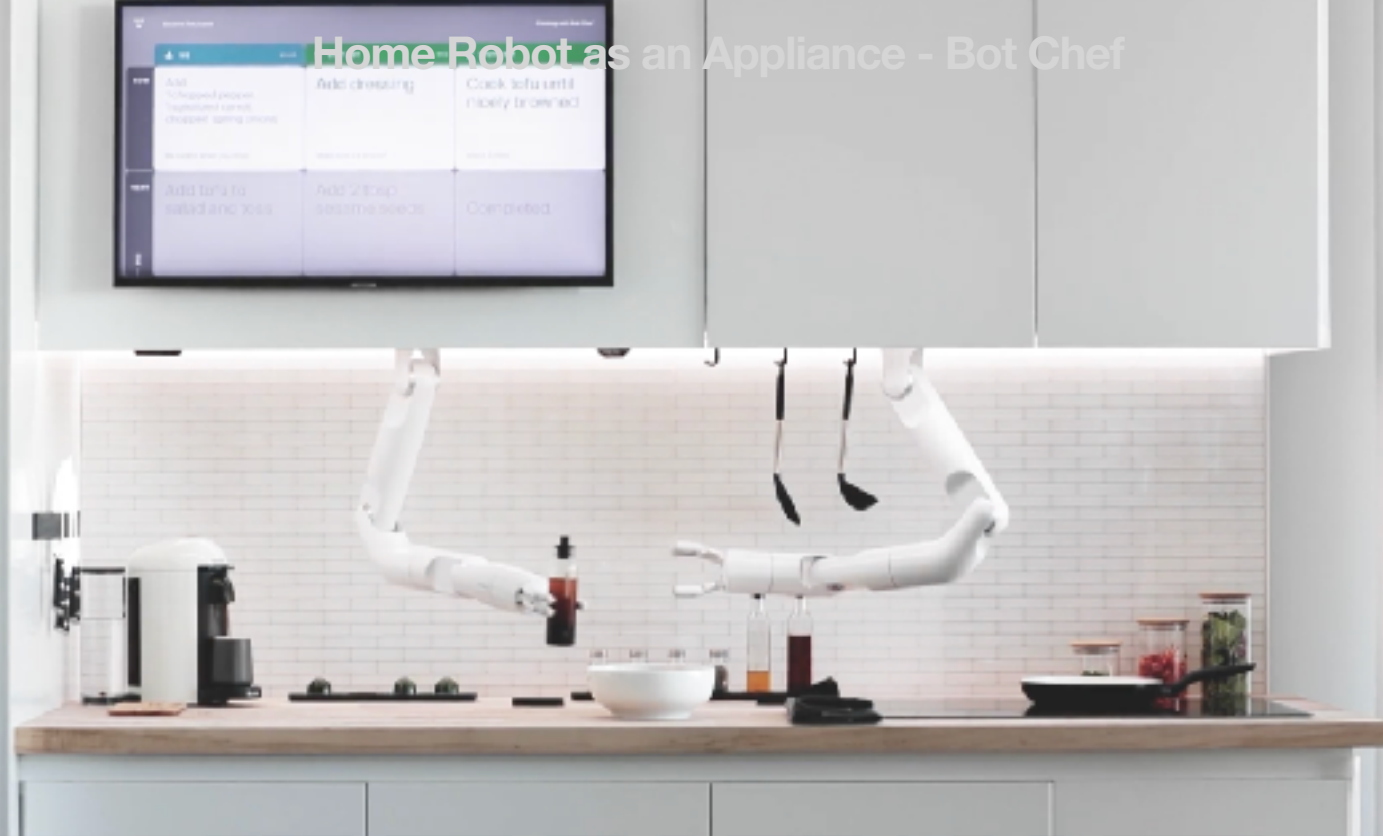
2013

2025

Working years with
the most talented people for
incredible ideas



MR Controller for Mouse Interaction and Gaming Experience - Orca



Home Robot as an Appliance - Bot Chef

First Working Prototype of Family Hub Smart Refrigerator

Thermal Camera Attached AI Powered Microwave - Vesta



Robotic Monitor Arm - Axis



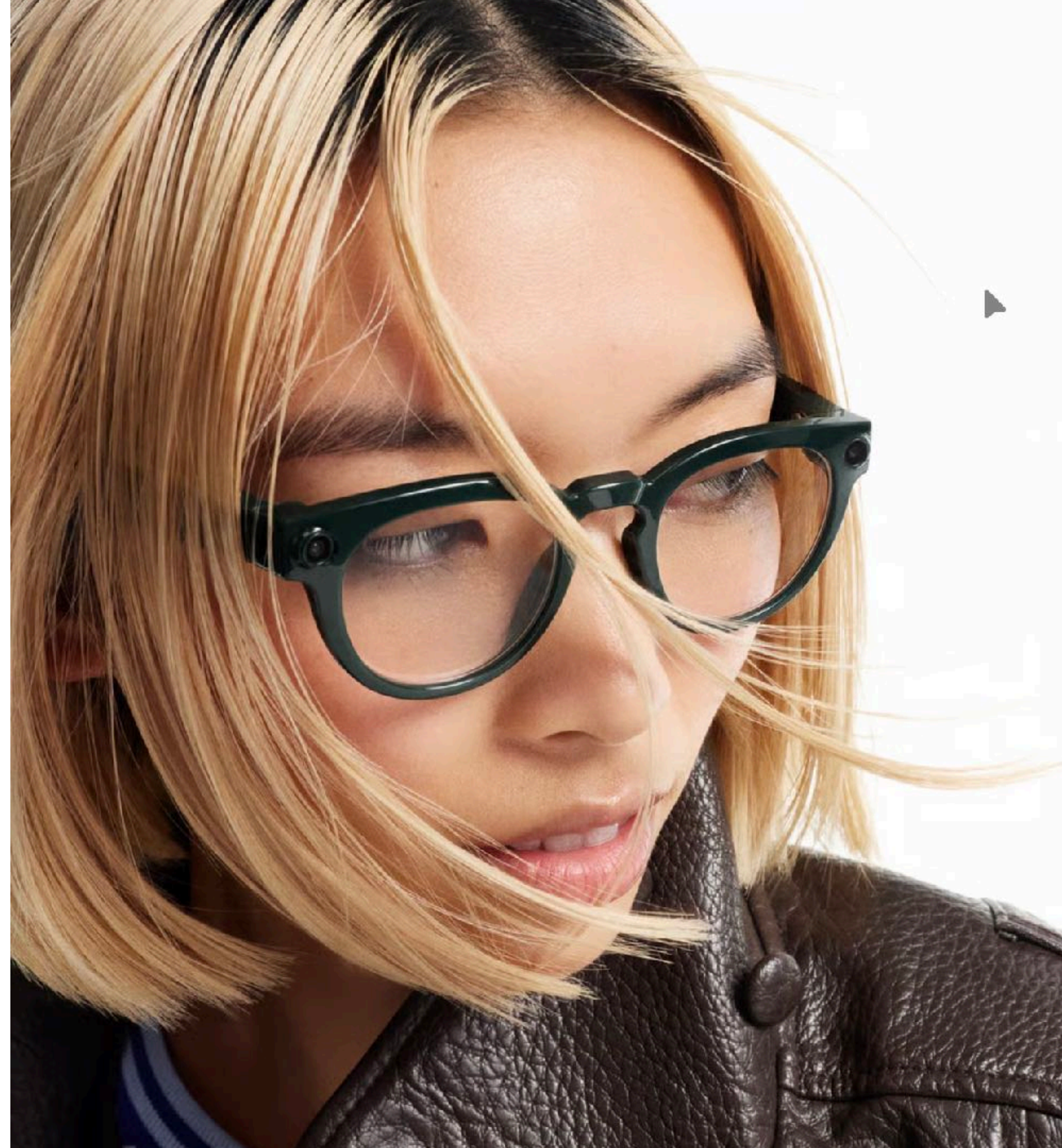
Smart Glasses Project

Integration of AI, glasses could be the most intuitive device supporting user in realtime.

The device should be light weight as normal pair of glasses and should run for all day long. Technological limitations of processing power and battery is the main huddle to create decent product.

Role:

Product manufacturing management, Partnership communication(Google, Warbyparker, Gentle Monster), C-level communication, Product Strategy, Design direction, Technical Presentations, B2B partners and inner team communication, Human factors, User testing analysis.



Problems

Developing AI Glasses expected to be not affordable to target user group.

The company planned to develop and launch augmented reality glasses, but the estimated cost was unattractive to potential users. Despite reducing the bill of materials, the company worried users might reject the product due to its novelty.

A comprehensive market strategy is crucial for developing concepts.



The absence of fundamental user experiences led to unclear expectations about the product's success. Simply transforming a partner's prototype into a customer product wouldn't suffice for the market.

Approaches

Based on users' expectations and complaints, priority of development has cleared

Market research suggests a revised product concept that delivers AI directly to users. The previous study highlighted AI technology's limitations, particularly the impracticality and lack of verification of infographics on screens. To address this, non-display AI glasses are proposed as a practical and cost-effective solution.



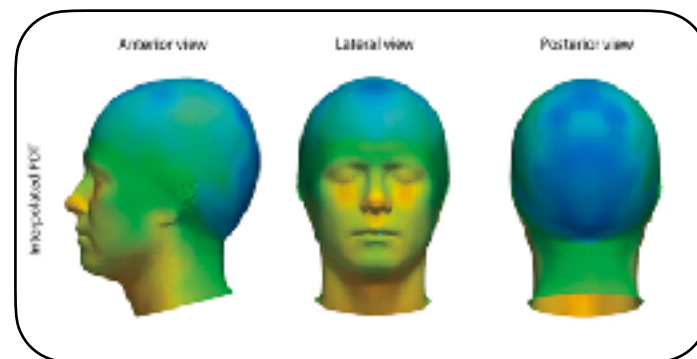
Potential use cases Reviewed previous study and consolidated

Users prioritized the perceived value of information glasses over image clarity or color variations.



Precursor research Did not rely on the research progress of the internal team

Numerous competitors exist in the market, and the technological landscape is characterized by rapid innovation and development.



Ergonomics

Strived to provide a comfortable wearing experience through body data and real-user testing.

The temple's clamping force, surface geometry, nose pad stress, wrap angle, and pantoscopic tilts were considered based on over 3,000 anthropometric measurements data.

Effects

Uncommon practice that commences from the ground up and subsequently gains approval

The project successfully delivered to production phase with approval of CEO and partner. It was not on the year plan calendar both side first place, now two company concentrate to launch the product to the market soon.



Became a first player of glasses family Table-setter product of XR family

With diverse product lineups of XR devices, the concept could be perceived as an integrated product family. AI Glasses are regarded as the initial entry point model within the glasses product lineups.



Well delivered concept to partner Best-Practice of a concept to a product

Though initially overlooked, the concept has progressed to mass production. Hardware approval and prototype delivery to partners as development test kits follow.



Promotional Image

1 /
TIMESYNTH ID: 1301004109
MODE: TRAINING
FRAME TYPE: NULL
RESOLUTION: NULL
DATA SOURCE: h264
MLEE_03.brab

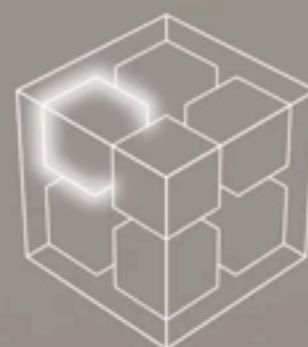
2 /
TRAVERSAL: ACTION
ACTION TAG: SMILE
SCALE: ORIGINAL
CONFIDENCE: 0.89
AVE. WEIGHT: 0.74



BEHAVIOR NETWORK

CORE R3
v0.2.6

NEON ID: 1301MLEE
NAME: ~
PERSONA: ~
MODE: TRAINING



Artificial Human

Adopting LLM for speaking, real-time responsive human like visual interface solution for B2B

Despite advances in LLM conversation skills, issues persist with phonics, pronunciation, lip syncing, and real-time visual movement.

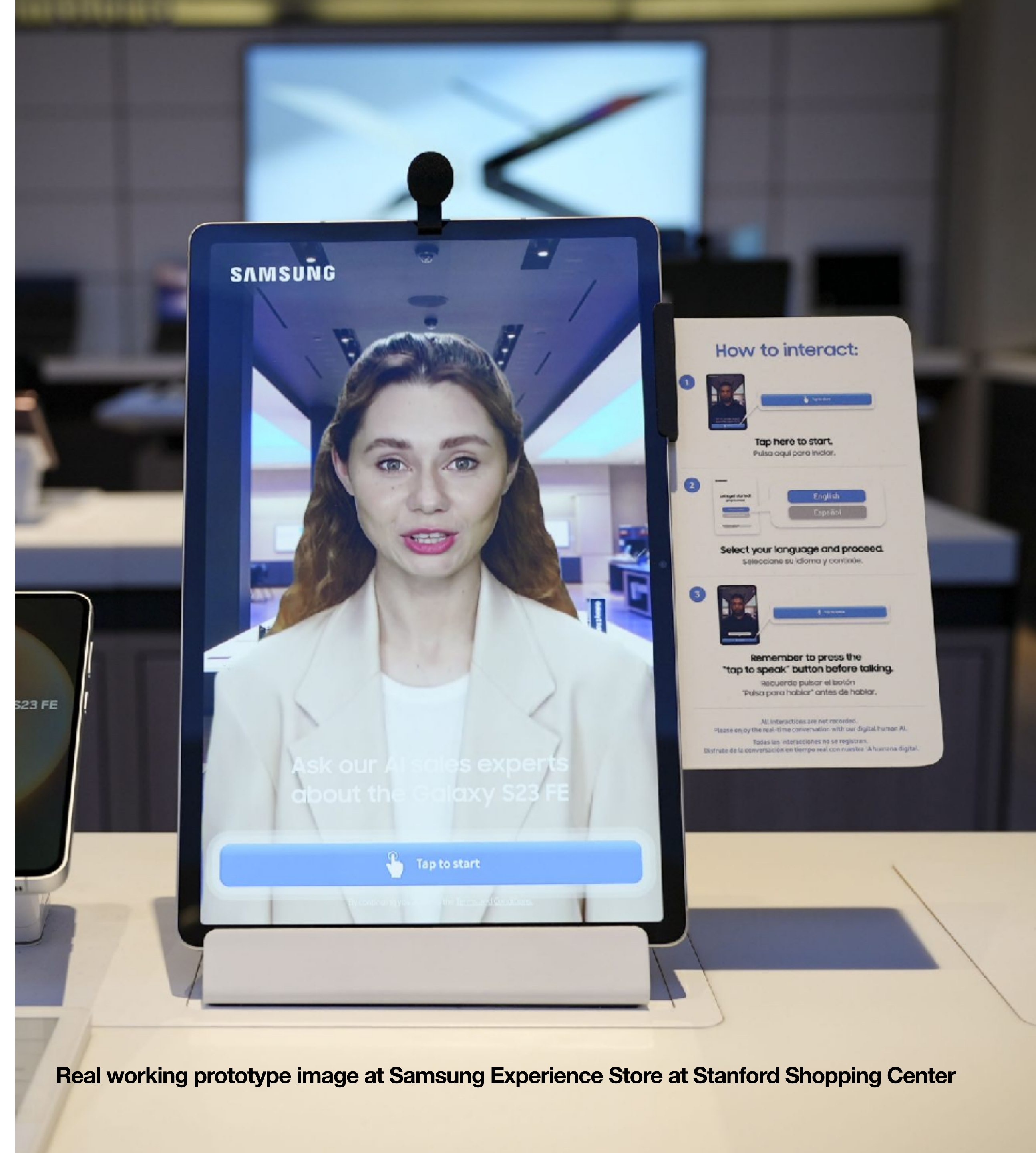
Role:

Business development, Product Strategy

User Experience Research

B2B and inner stakeholders management

HQ communication, Team management (40+ people)



Real working prototype image at Samsung Experience Store at Stanford Shopping Center

Artificial Human

Chevron
powered by **SAMSUNG**

2 FOR \$5.99
ANY HILLSHIRE 2.76OZ. SMALL PLATES

Discount valid on multiples of two.
Available varieties vary by location. Offer good on select products and sizes only for a limited time at participating stores. Quantities limited to stock on hand. Price does not include applicable taxes.
©2023 Chevron. All rights reserved. All trademarks are property of their respective owners.

Tap to start
Presione para iniciar

Realtime running demonstration

SAMSUNG © Copyright 2019-2023

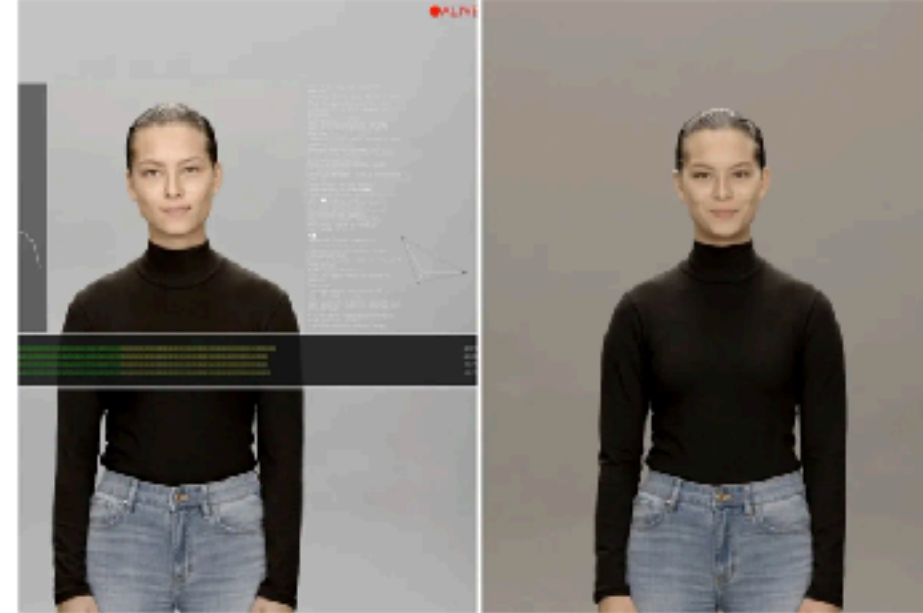
SAMSUNG

Artificial Human

FREE MOTHER'S DAY CUSTOMIZATION YETI
*Offer valid until 4/30/24 11:59 PM CT. Exclusions apply. See Details. CUSTOMIZE NOW

TECH / SAMSUNG / CES

Samsung's 'artificial human' project definitely looks like a digital avatar



/ It's realistic, but can it walk and talk like a human?

By James Vincent, a senior reporter who has covered AI, robotics, and more for eight years at The Verge.
Jan 5, 2020 at 1:26 AM PST

Comments (0 New)

On Friday we wrote about Samsung's mysterious "artificial human" project Neon, speculating that the company was building realistic human avatars that could be used for entertainment and business purposes, getting some of the most interesting responses.

THE WATERPROOF SIDEKICK DRY®

Introduced to media



Pilot Test at Chevron



NRF 2024 - Fox Business

Problems

Unclear understanding of the potentials of the technology

HQ considered this solution could bring immediate response to the market with high quality human-like responses.

Clients and end user are not familiar with human like interaction and took longer time to resolve their requests. Answers of the GPT were not correct and responsible.

First wave of AI service got attention

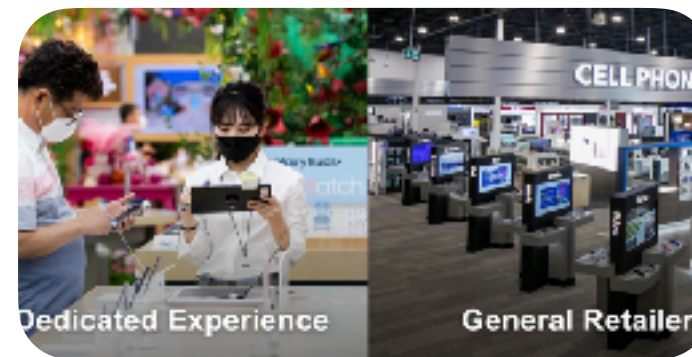


Given that it was the inaugural AI-driven development project, and the market is still in its nascent stage, the team and clients faced challenges in establishing a consistent production standard.

Approaches

A systematic approach to identifying potential opportunities in AI solutions.

The team researched and tested the market for implementing the concept. Potential customers indicated a substantial opportunity in the labor replacement market for sales. However, designing the product to meet customer expectations proved challenging.



Re-focused Custom Built Cash DB

Lazer-focused for the service scope. Not demonstrating tech, practically helpful service.



Funnel Menu / Kiosk Approach

Full-conversation-based interactions can lead to confusion, which is beneficial for demonstration purposes but detrimental to user and customer satisfaction.



Dogfood Early test, Pity and painful

Users entertainment of AI honeymoon was not so long. Soon, they complained whole service journey.

Effects

Industry showed ton of interest to adopt the solution for their business.

After garnering significant attention for the tech concept demonstration, the team successfully launched the initial prototype to potential customers within the stipulated timeline.



Gaining attention Got back the interests

Customers (partners) showed their attention again and got viral. But, the cost of maintenance was still high.



Still NOT Familiar Simpler, Resonate move needed

With the filed test, we tried to gain more customer's interest and promotions.

The company has made the decision to discontinue the project due to a lack of confidence in the AI business utilizing company resources for its hardware development capabilities.

Home Robot Project

This is the company's inaugural independent robot concept for home management. It is defined as a home robot that operates autonomously, thereby eliminating the requirement for human physical assistance in the middle of operation in managing the home environment.

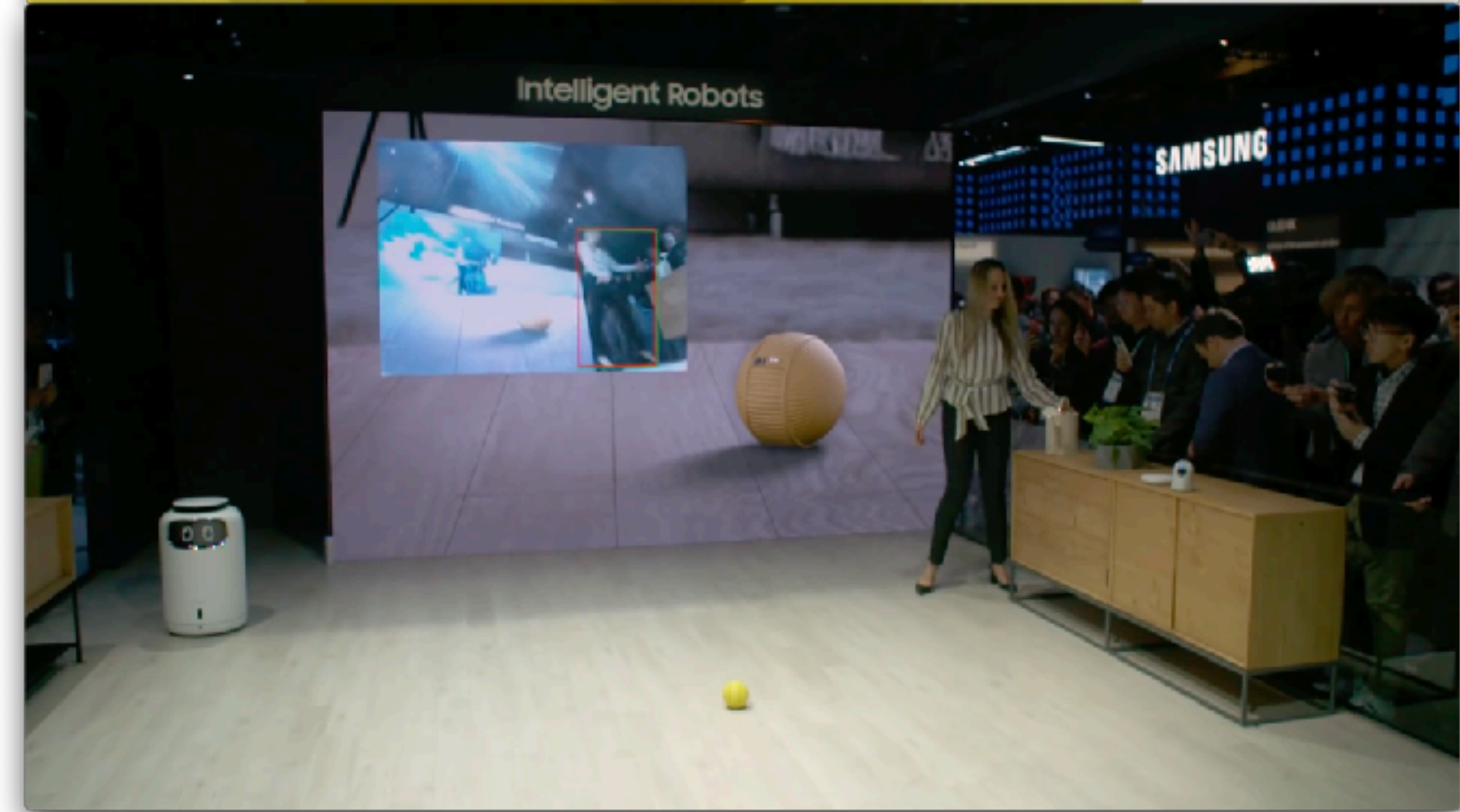
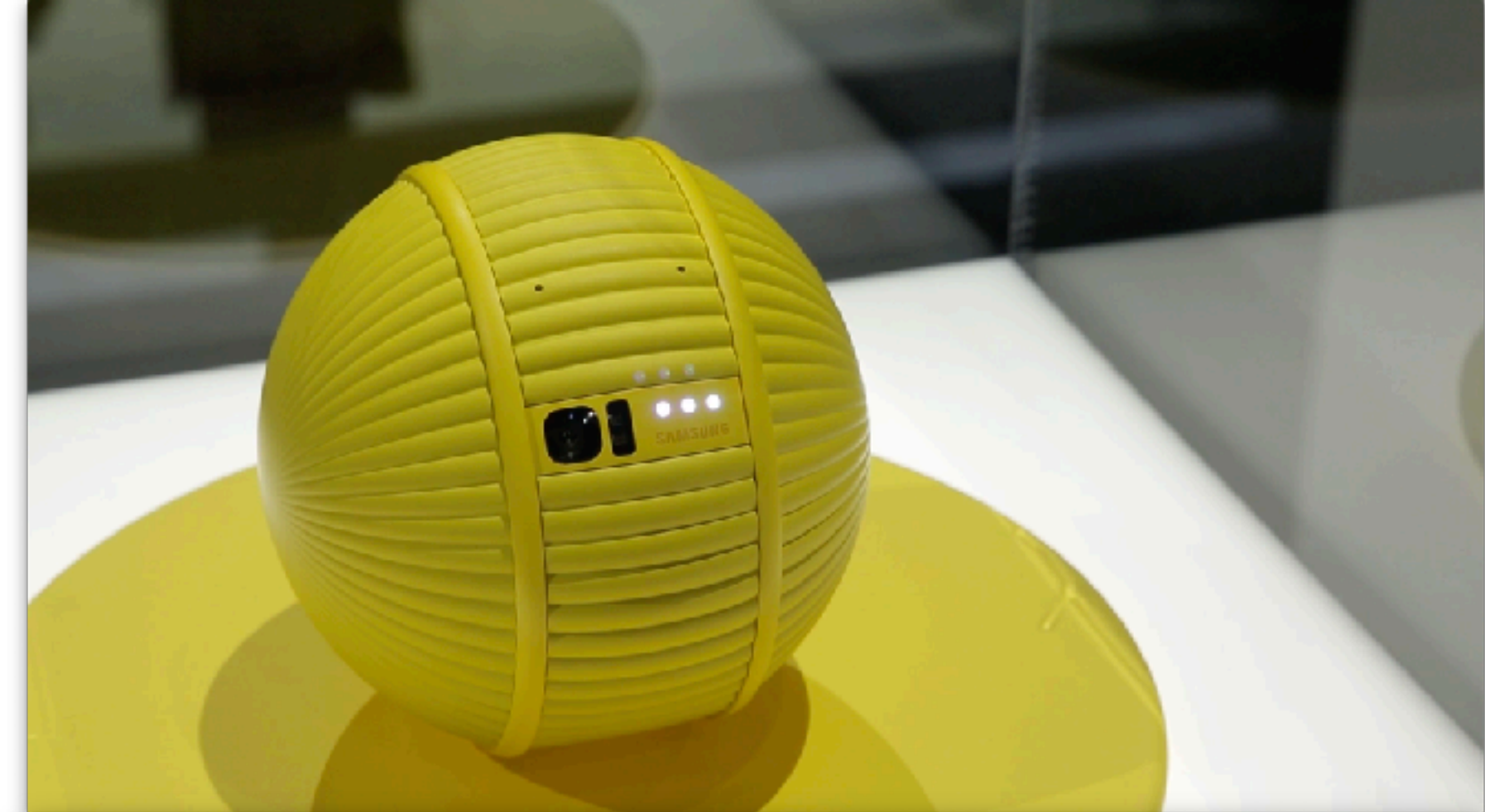
The project underwent various iterations and was subsequently transferred to the production teams.

Home Robot Project

Proposed a personal robot for the new home robot product line.

As the company entered the home robot market, it faced a challenge: lack of experience, reference points, and user data on user-robot interaction. Research revealed a critical, uncharted territory: building intimacy between users and robots.

Role: Product concept developer, Product management



Problems

Attractive technology first, but unclear of the product definition.

After long searches of the technology for new products, team ended up with sphere shaped robot control technology for consumers. Successful first demo delivery led next problem of productization.

Fancy technology without market expectations.



Combination of the real-time vision recognition and motor control technology showed the potential of new home robot market, but failed to find critical value when we transform this to the product.

Approaches

Several user testing and constructive ideation helped team to focus to user values.

Listed and narrowed down possible features with the home robot and reshaped the product. Several iterations of development encountered several inner team confrontation moments.



Value points
Checked possible markets and combined

Checked 24 the most potentially valuable markets with specific scenarios. Countless meetings with product planning team to review them.



Product review
Transforming core tech to a product

Listed possible problems caused by home scale obstacles and tackled down with testing.



Testing Interaction
Robot interaction for bonding with users

Complaints of uncertain information and interaction problem caused. With several testing R2D2-ish interaction made users building emotional bonding in between.

Effects

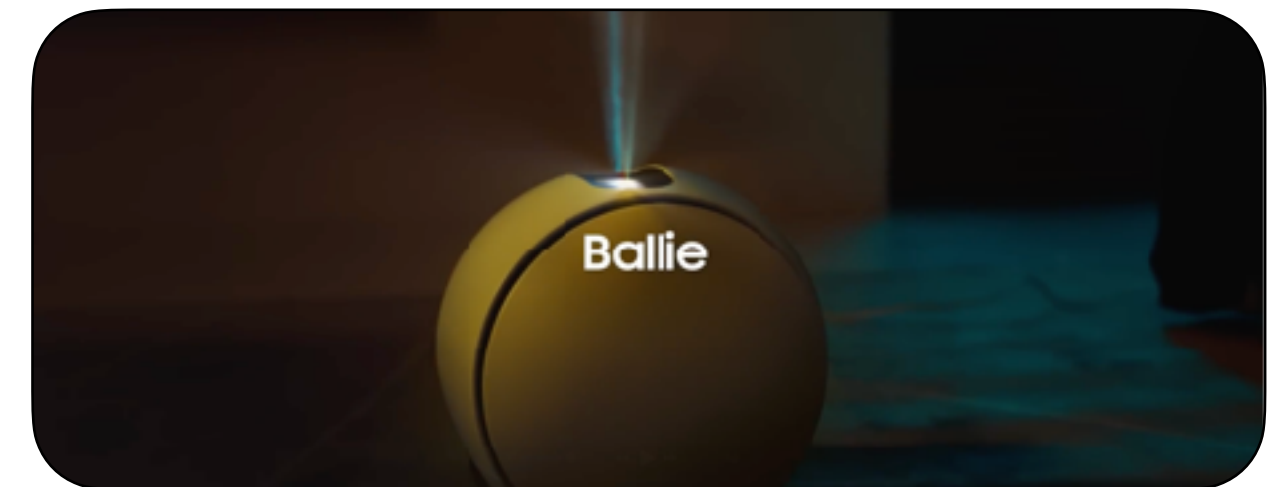
MVP prototype satisfied CEO and related inner teams so brought them confidence of public exposure.

The project picked to demonstrate company's next vision product even though the project was the stage of early prototype. The project is on the track of the production of '25.



Demonstration on CES Keynote
Presented as a first home robot of company

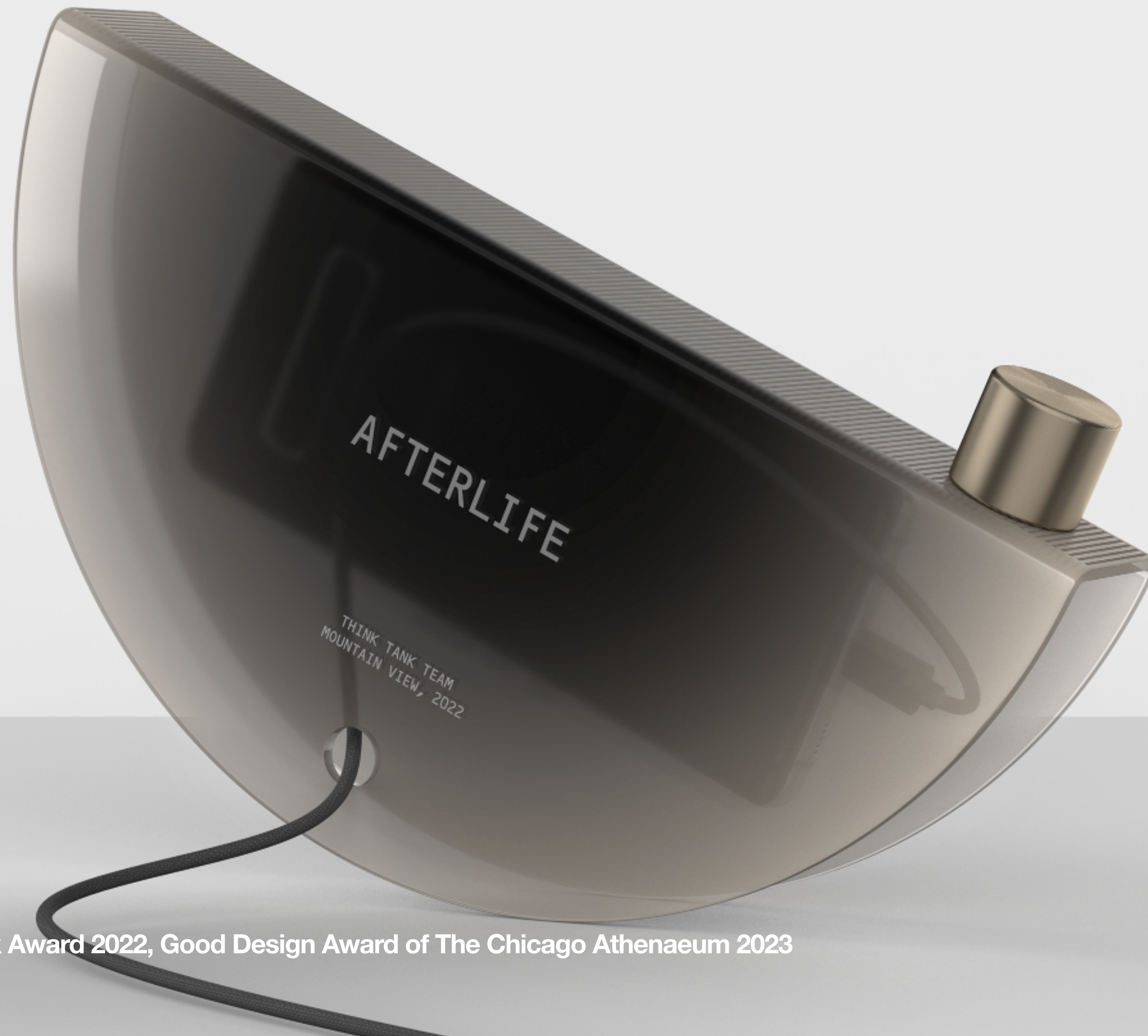
At CES 2020, the project unveiled in public and went viral, earned 6M views in two weeks, and introduced to the newspapers and media.



Successful concept of 0 to 1
Team success of starting from tech to product

Even it delayed sever years for redevelopment for mass-production due to pandemic, the market evaluation passed. After company's tough real-world-ready pre-testing quality test, it is about to launch to the market.

Smartphone Up-cycling Project



Designing and Prototyping the up cycled concept of mobile phone

Outdated technology and old Android capable apps.
Daily use table object design

- Design a visually appealing or significant object that complements any furniture. Prioritize an eco-friendly approach.
- Captivate users with the simplicity and emotional resonance of the old phone's attached memory.

Role: Defined product strategy and designed hardware and user experience.

Smartphone Up-cycling Project

A F T E R L I F E

Transform your old phone into an interactive memory photo frame, table clock, or abstract visual effect with this objet d'art on the table.





Problems

From a different perspective, why should we discard functional but outdated mobile phones?

Individuals are primarily motivated to participate in the trade-in program when purchasing new phones. However, some users retain their phones securely due to privacy data preservation concerns, detained value due to the damage, and perceived inadequacies in the recycling process.

Identifying innovative methods to repurpose old phones in an aesthetically pleasing manner.



Through extensive interviews, the team discovered a deep emotional bond with their former mobile devices, like nostalgia for long-used cars. Each phone held cherished memories, and they wanted to explore innovative repurposing techniques.

Approaches

Considering a solution that SHOULD be homonymous with emotional, economic, and functional approaches.

Given the constraints of the outdated phone's performance, budgetary considerations, and the balance between damage and usefulness, these factors were the primary considerations in determining the solutions.



Engagement

How we can transform this e-waste to the new

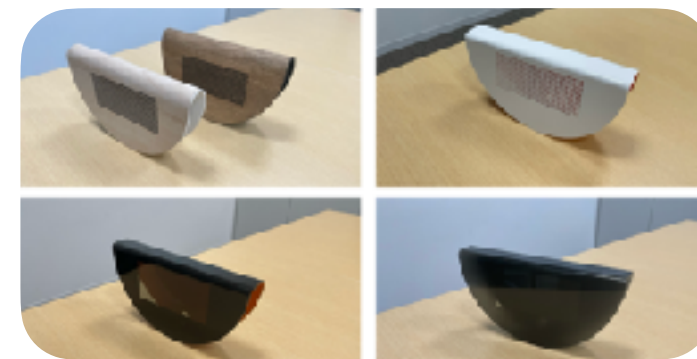
Upcycling this e-waste requires creative ideas to make a piece feel more emotionally connected and appealing.



Innovative prototypes

Testing new features running on outdated phone

Given the substantial capabilities and data this phone can provide, we endeavored to retain some outdated features that still function effectively.



Budget solution

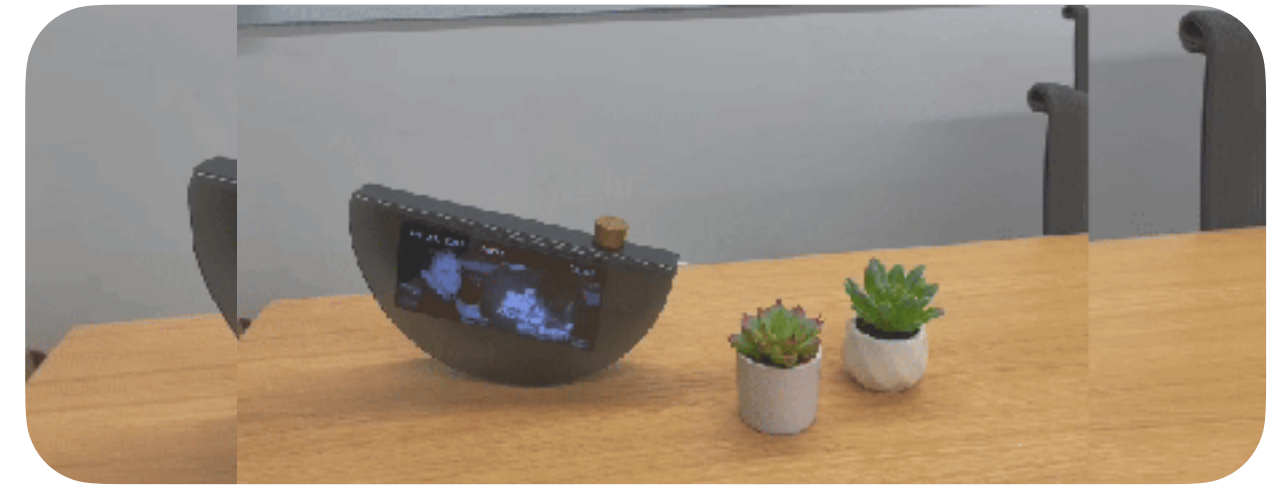
No one wants to pay for cosmetics that go to waste.

Numerous cost-effective reimaginings of our solutions have been undertaken. However, people are reluctant to pay for a nearly lost phone, even if it holds sentimental value.

Effects

Meaningful solution for customers, company and team itself.

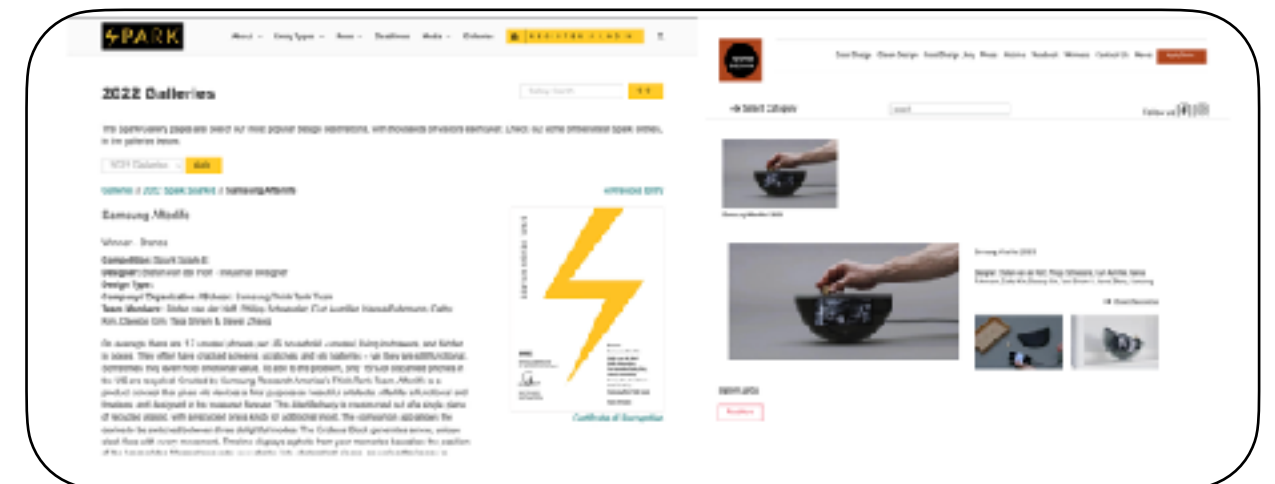
Despite limited promotion, the concept secured two awards and patent. Notably, the project wasn't a major undertaking for the flagship initiative. However, the team recognized the market potential of this approach.



Simple, and artistic solution

Extending old e-waste's extra lifecycle

The feedbacks were emotionally charged, and the prototype performed effectively regardless of the phone's condition, whether it was old or damaged.



Rethinking of up cycling value

Team's innovative approach to problem-solving and creative thinking in different angle

The concept has been recognized with two innovation awards and a patent for upcycling. The headquarters marketing team and the mobile experience team have transferred the project concept for future promotion.

Virtual Reality Project

Making market acceptable Mid-Price range headset and related experiences

Challenges: Political Issues with major partner, no references for the standalone headset experience

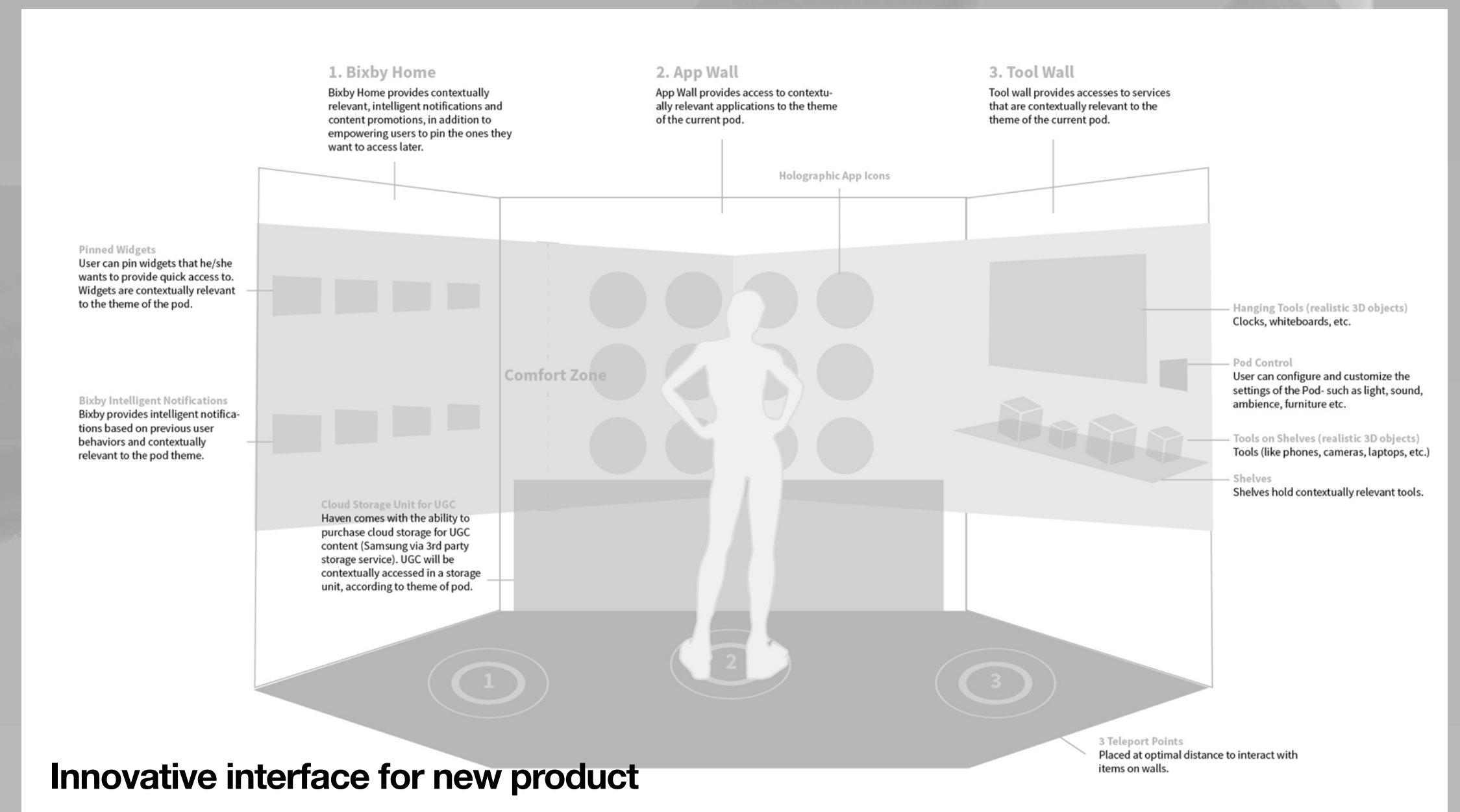
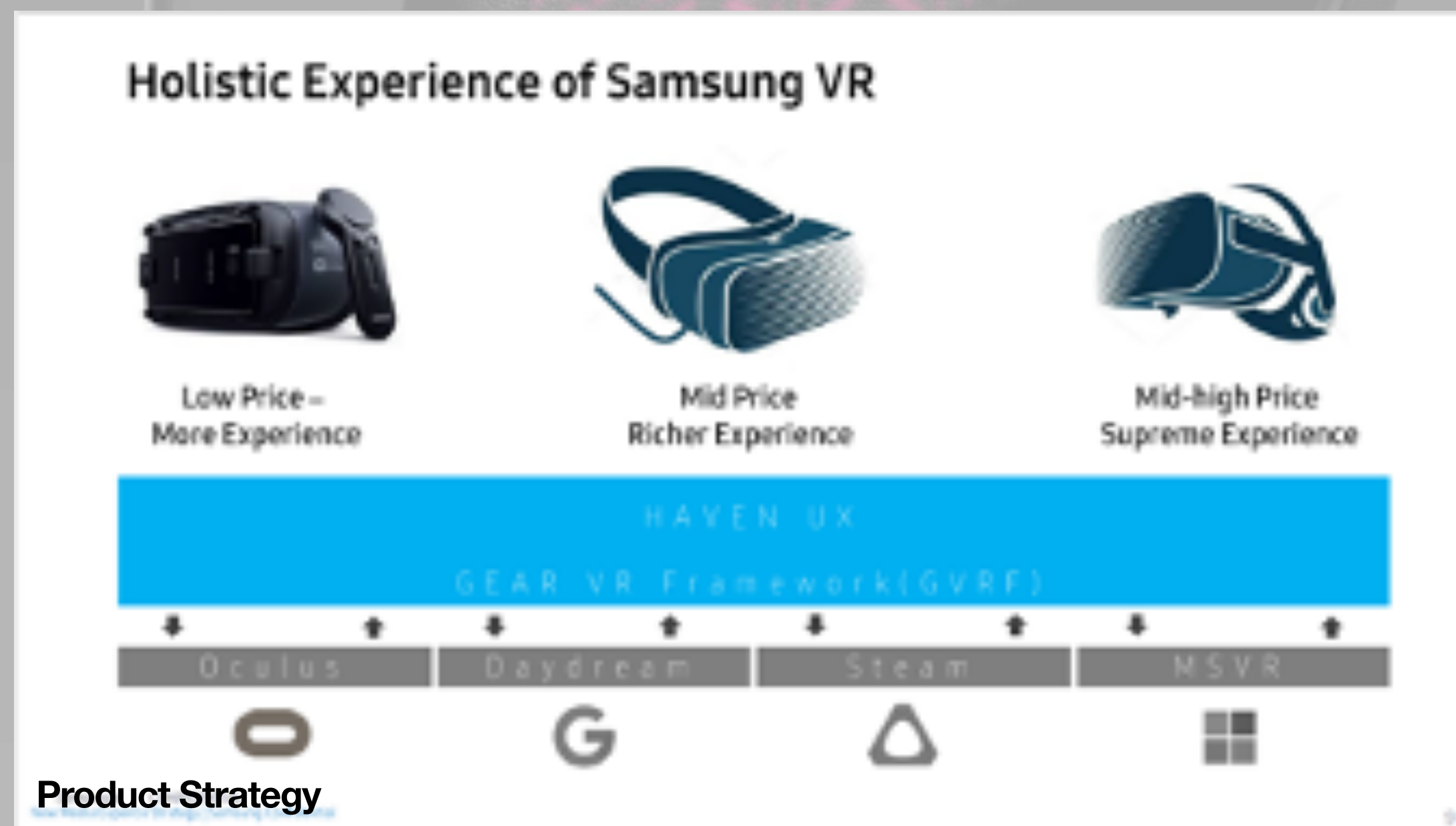
Role:

Defined the hardware framework.

Directed for industrial design.

Conducted User research.

Created a design and prototype for the main user experience.



Virtual Reality Project



Product Strategy

**Headset Design
Guidance**

**Experience planning
And prototyping**



DEMONSTRATING ALL PODS WITHIN HAVEN

Low-GPU-Performing Home



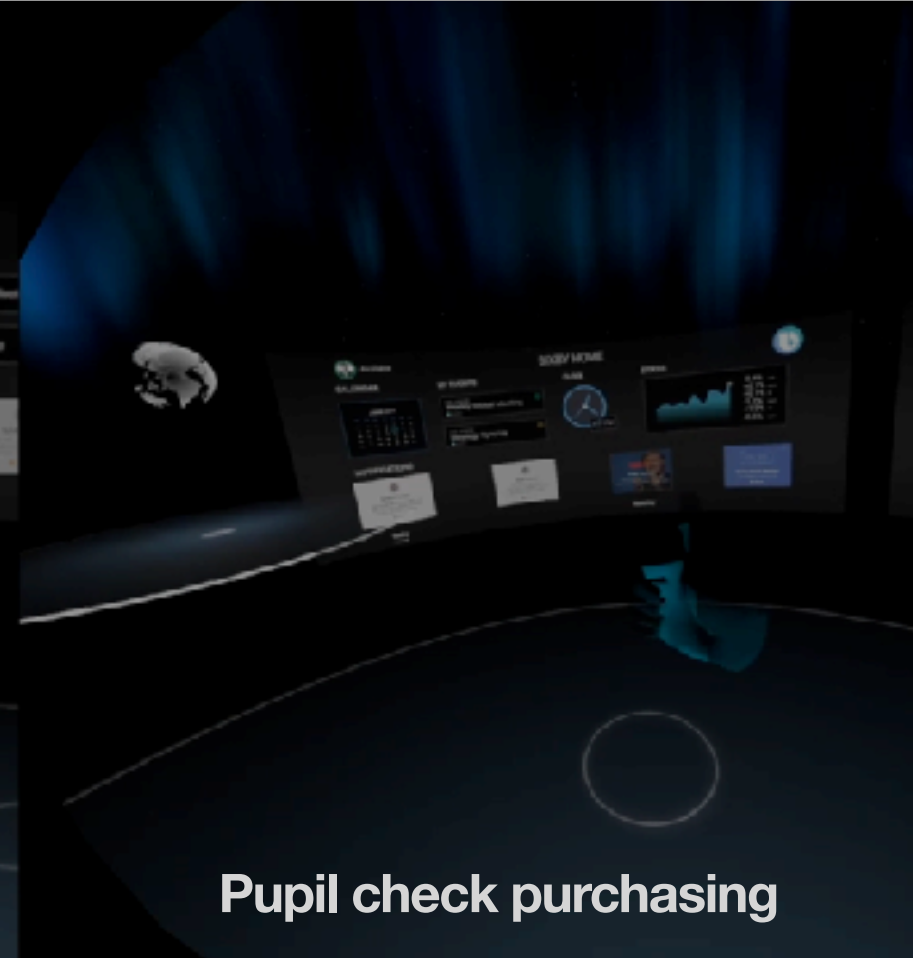
EMOTIONAL GESTURES



Communication



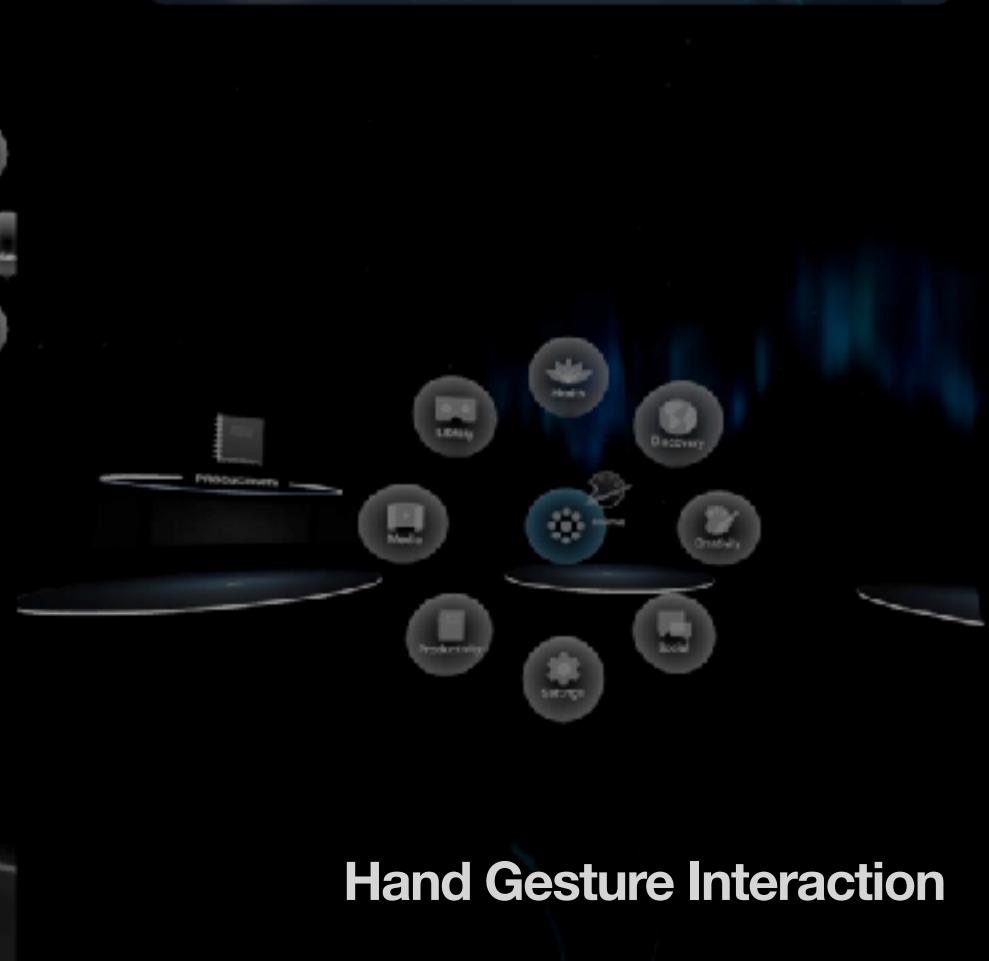
ACCESSING MEET



Pupil check purchasing



POD TELEPORTATION - GLOBAL MENU



Hand Gesture Interaction



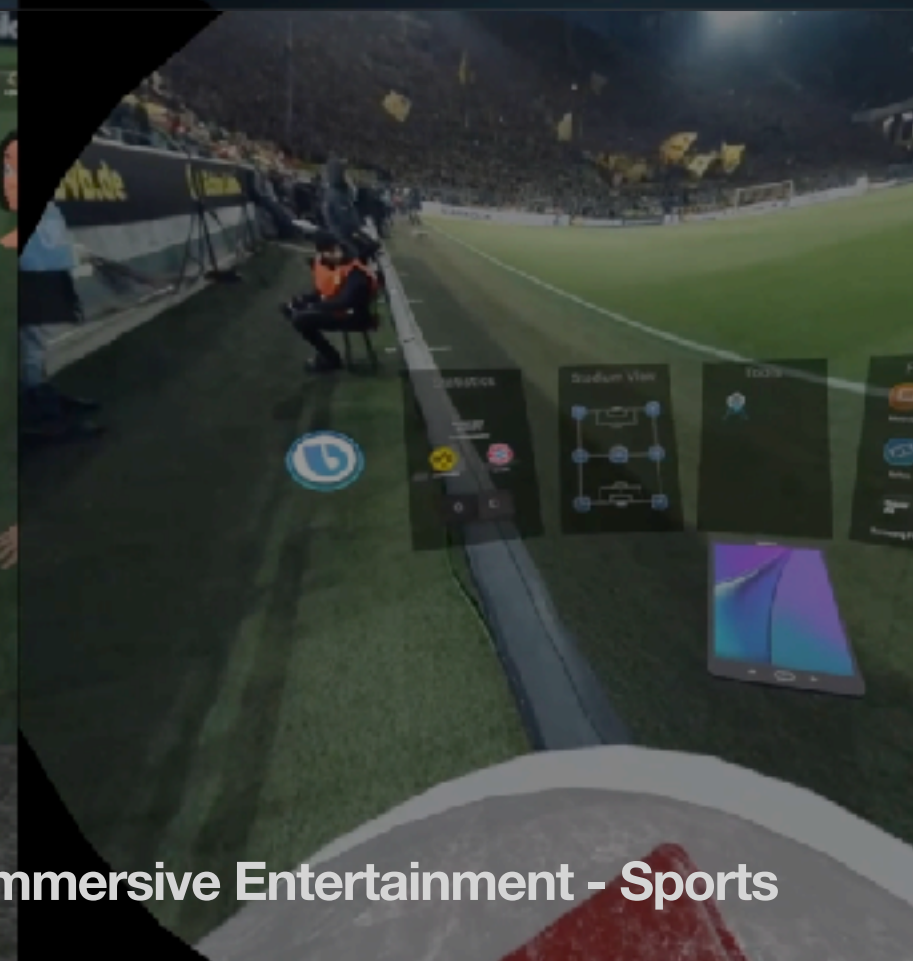
MEETING TOOLS



Media Experience



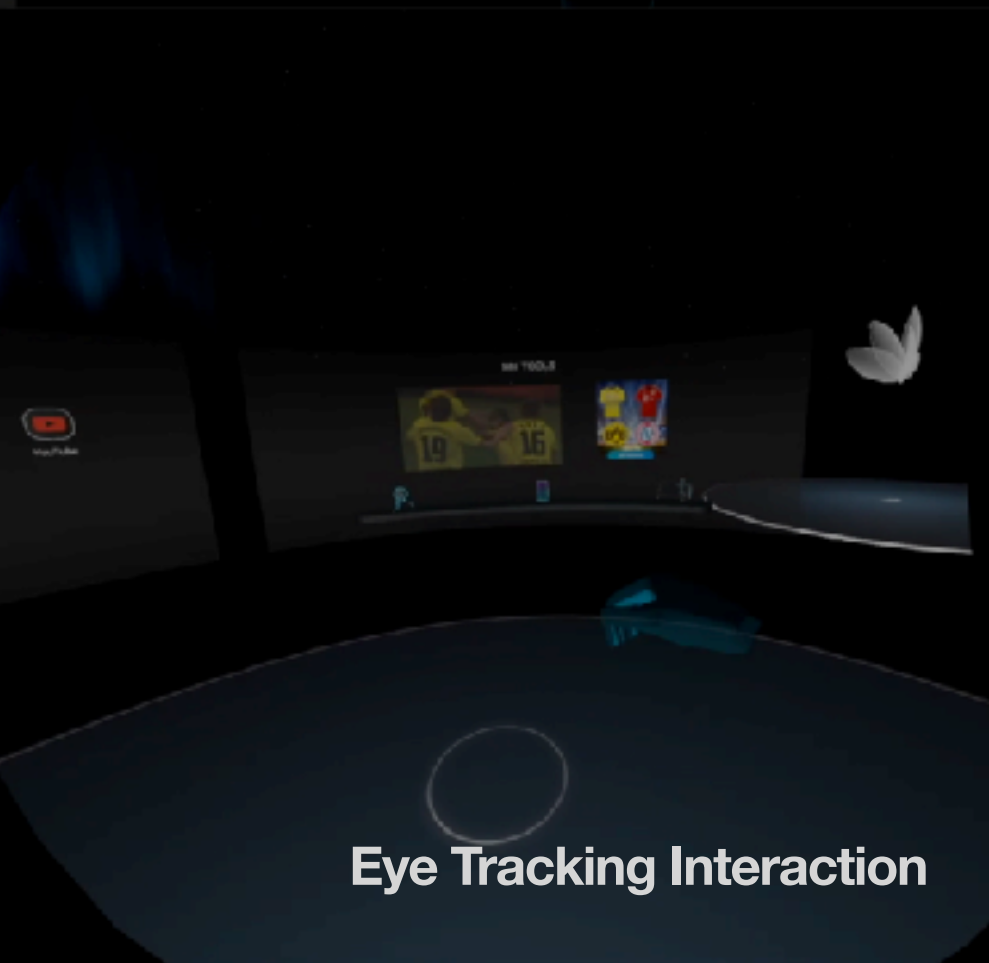
INTELLIGENT INFORMATION



Immersive Entertainment - Sports



ENTERING MEDIA & SPLICE



Eye Tracking Interaction



MEETING TOOLS



3D Contents Interaction and Creation



MEETING TOOLS



Post-it Interaction for Collaboration

Problems

Emerging consumer tech faces challenges like lack of VR standardization and environmental concerns.

Company launched the VR devices as freebie product for promoting sales of flagship mobile phones, but required to reduce the cost of co-branding with partners and accelerate isolating VR as an independent item for profit.

The company sought to enhance its VR industry competitiveness.



Various companies launched the mobile phone mounting Me-too VR headsets besides the high-end products are too expensive for mass sales, so the market saturation happened rapidly.

Approaches

Focusing on the rest of gaming experience questioning majority of people were not welcomed VR.

The most of VR related technology need tremendous time to be revolutionized and far from profit. Still VR has room to be developed and tried to find how we can fill the gap of the users expectation and real product.



User Voices

Reason of slow adaptation of VR Tech

Users considered VR experience can detach ourselves from the painful real life.



Tech Review

Inner / outer team check

Searched the bottlenecked techs but could be bringing the maximum for the convenience.



Prototyping

Testing & Fixing

User complained for the complexity and disconnected from quick and easy interaction of VR world. Thanks to the new technologies, eye-hand gesture integrated interaction could be developed and tested.

Effects

A short-sighted decision of VR business gained long-term vision

Decision makers considered the approach of VR seriously not chasing the fashion to find another goldmine in chance. The saturated research teams reallocated for one grand project.



Refresh of the interaction

Power saving interaction for universal use

Limitation and slow growth of technology, line based graphical elements with low latency interactions were developed. It consumes approximated 18% lower battery powers by calculation before mobile optimization.



Roadmap for the tech and production

Team collaboration for the next

The project continued with larger team collaboration following year. Company enthusiastically launched high-end product desktop tethered one with MS.

Smartphone Localization Strategy

Revitalized Mobile Brand for Gen Z China

Challenges: The company faced declining market share against local brands and struggled to implement innovative solutions. Securing desired mobile phone parts at a competitive price proved difficult with local manufacturers.

Role:

- Led design strategy targeting China's Jio Ling Hou
- Identified top 5 customer pain points (camera, form factor, weight, core use cases, marketing).
- Communicated clear findings, prompting design shift (e.g., pin-hole front camera).



Galaxy A8S World Wide Model

Problems

Mis-focused development plan and not competitive tech performance

The company's market share has been declining, and an initiative survey revealed that the brand of mobile phone targeted at the mass market was not appealing to the new, young generations. The marketing team also identified another issue: the headquarters had failed to develop an appropriate design strategy.

Adopting a unified global model that doesn't apply to all countries was a mistake.



The company's product strategy assumed a single archetype would suffice across all regions. However, the significant loss in China exposed this error. Regaining the market seems slim due to formidable local players.

Approaches

Previous strategy didn't appeal to the young demographic, who make up most mobile phone consumers.

Vision of the one MVP product could clarify the subordinate teams project direction. Also it found missing points of user use cases and problems underlying when users can encounter in daily use.



User research

Understand users' thought of the brand

A survey of 100+ participants found the design outdated and irrelevant to younger preferences.



Competitor analysis

Local mobile phone players hold a substantial market share for various reasons.

The visual presentation and camera placement lacked creativity and flexibility. Localized UX was a popular trend then.



Social trend

92g of weight is not acceptable, need to be lighter

Analyzing the user behavior of Jiu Ling Hou (九零后) through mobile phone usage and cultural trends surrounding popular local applications.

Effects

In response to evolving local trends, the company adopted a revised strategy emphasizing agility and adaptability.

The manufacturing team, guided by user trends research, implemented a strategic plan to enhance competitiveness. This initiative resulted in the launch of a replenishment sales campaign.



Practical product design direction

All design aspects are laser-focused on satisfying customers.

We designed the phone from scratch to meet customer expectations, considering factors like color, lens design, back plate, rounded corners, front-camera features, basic user interfaces, weight, and advertisements.



Impacted to the market

Additional measures are required to move the needle

The total market share in China has increased by 1% overall, while the mid-range share has risen by 2%. This is noteworthy because the company had experienced consecutive market losses before.

Wearable for Fashion



Variations of Fashionable Smart Tracker Enclosures

Collaboration with Samsung's Fashion Brand, shaping the first SmartTag product and its experiences

Challenges: Limited Battery cycle(Button Cell), limited bandwidth and ignorance of technology from Fashion brand counterpart

HW: Design a simple container with a 20-day non-rechargeable battery. It's adaptable to different housings, making it a decorative accessory.

Experience: Implement a one-click, light-blinking interface with pre-set options for ease of use.

Role:

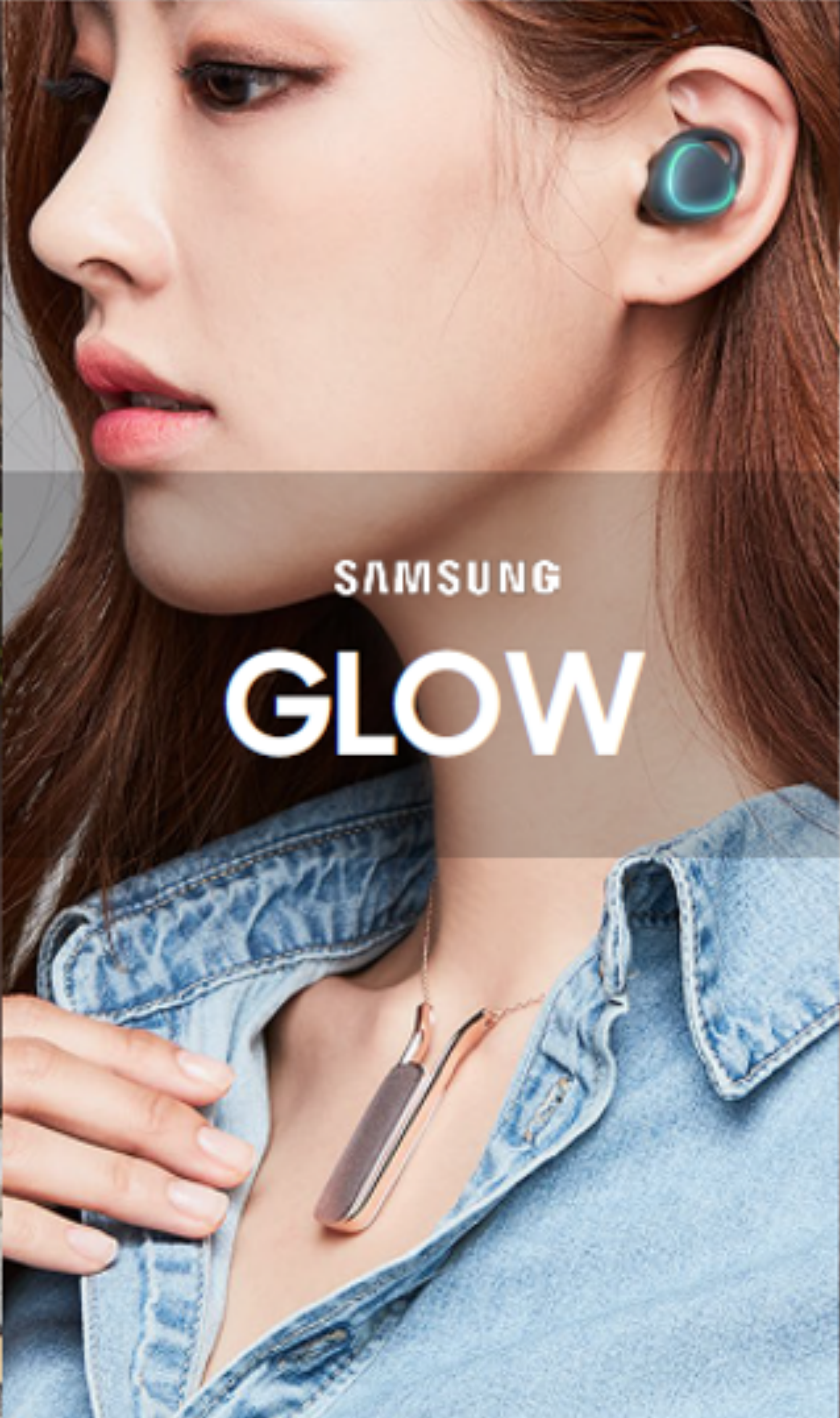
Defined the hardware

Led the design

Researched user needs

Created the main user interface prototype

Managed communication between teams



SAMSUNG

GLOW



Wearable for Fashion



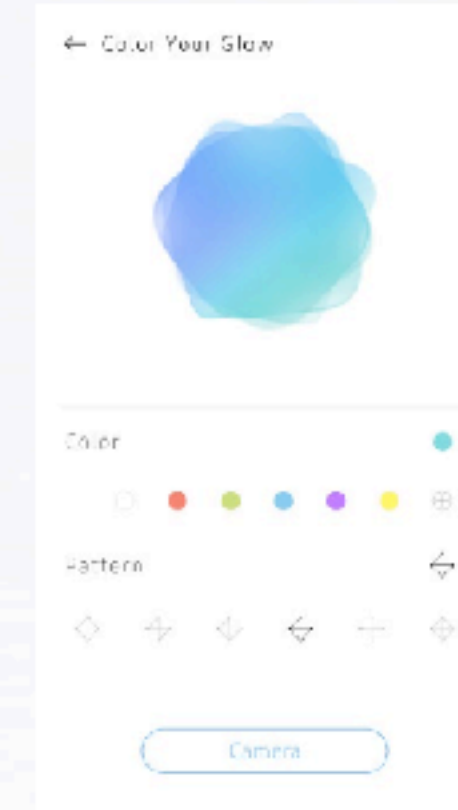
User experiences as a
customized shortcut to
maximize its capability

The company condensed the original idea into a Smart Tracker, omitting many features due to budget constraints. They released this project to the market in 2017 and introduced updated versions in 2020 and 2023.

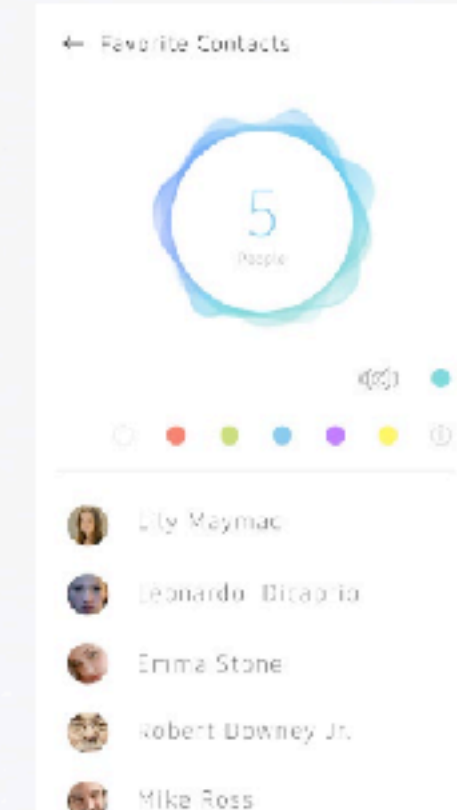


Communication as rich expression

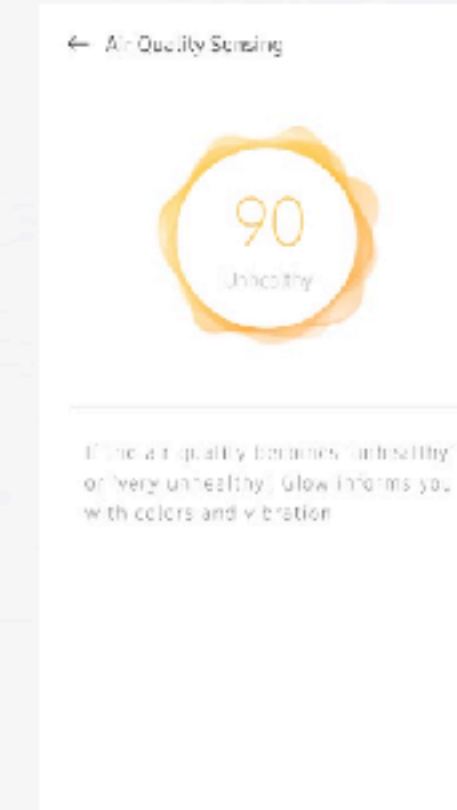
다양한 색상 및 패턴의 LED 알림 기능 설정 (기존 Charm 대비 LED 및 진동 피드백 강화)



Color Your Glow
라이트 패턴으로 개성 표현



Favorite Contacts
특정인 연락을 특별하게 표현



Air Quality Alarm
기상 변화에 대한 직관적인 알림



Hot Key as one button

단 하나의 클릭으로 상황별/기능별 심플한 필수 기능 수행



Camera Remote
쉽고 빠르게 사진/영상 촬영



Music Control
음악 재생/정지



Quick Mute
다급한 상황에서 빠르게 뮤트



Problems

Introduced an innovative healthcare accessory with a simple feature that failed to meet user expectations.

The company introduced a series of affordable wearable devices designed to support health services for its flagship mobile phones. Unlike the Fit Tracker, this entry-level product was an attractive option for beginners seeking to explore health services through wearable technology.

The device's basic tracking capabilities failed to reveal its value.



The initial fashionable tracker failed to gain significant market feedback despite its launch. The company expected to expand through partnerships with telecommunication companies, but lacked a compelling vision for customers.

Approaches

Redefined the product to integrate daily health maintenance into a fashion accessory.

To engage users effectively, I sought a compelling approach that lets users wear the device naturally without feeling overwhelmed by complexity. To enhance the product's quality, the team collaborated with a renowned fashion company.



Users' perception
People preferred not maintaining a routine

Despite their desire to track daily activity, they are reluctant to maintain devices during the busy morning routine.



Beauty with function
Cross-functioning team collaboration

The research team discovered that users would appreciate the device's ability to function as a stylish accessory.



Prototyping
Variations and fitting to fashion items

A team designed variations of the device using a modular design. The hardware engineer reviewed the enclosure to ensure uninterrupted circuit space and optimal GPS performance.

Effects

Considering acceptable wearables in a non-conventional manner.

The production team conceived the idea of integrating a tracking function with stylish accessories that can be attached to various body parts and belongings. Through years of iterations, this concept evolved into a standalone tracker.



Personalization through modularization
Wearable cares personal taste could be a trend

We successfully attracted CEOs and executives from a mobile phone manufacturer and a fashion brand to explore novel approaches to the fashion. The project was exhibited at CES with an independent booth and recognized as a successful collaboration.



Iterated and productized
It remains a useful accessory, though it's no longer considered a health-related item.

After several iteration of the product concept the fashion identity has washed out but simplicity remained. The device changed and redefined as a tracker no longer related to the health features. But not on the wrist, it can go with several position.

This presentation was created using the Keynote app.

Contact

21861 Alcazar Ave, Cupertino, CA

daeeop.kim@gmail.com

408-816-0845