PORTFOLIO

For a Better Life

Selected 8 Works Deliver Advanced, Innovative,
and Regenerative Solutions for Our Society and Environment.

Youngmin Song

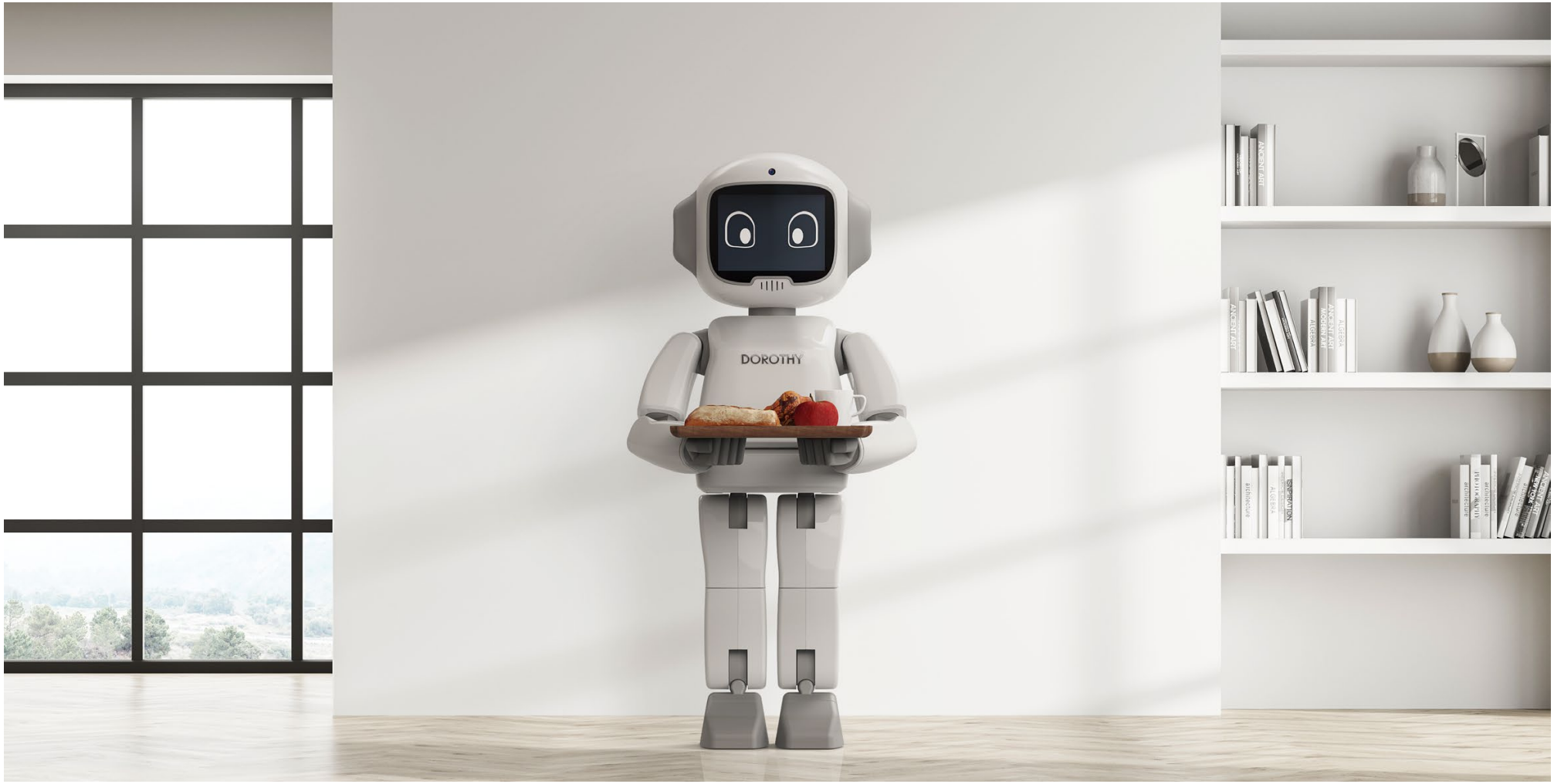
CONTENTS

The 8 works reflect my long-lasting deliberation and endeavor to blend design and technology for a better life.
This portfolio, organized intuitively with subtitles and images on each page, is designed for easy understanding.

01

DOROTHY

Home Robot designed to interact with humans,
serving roles like a companion or friend



Home Robot

Multidisciplinary Approach

DOROTHY, a robot named to embody the meaning of 'God's gift,' is the subject of my master's dissertation, 'Home Robot Design Study for User Convenience.'

It was conceived from a multidisciplinary perspective, incorporating design, engineering, humanities, and psychology. Additionally, DOROTHY has reflected the successful implementation of the robot education project targeted at seniors in Seoul.

DOROTHY represents a significant step forward in the development of home robots, aiming to seamlessly integrate into users' lives and enhance their daily routines and interactions through advanced technology and thoughtful design. My dissertation can be downloaded by clicking the PDF icon below.

PDF

Project Type : Solo
Contribution : 100% Personal Effort
Duration : Dec 2022 to Dec 2023

Strategic Planning

VISION

LIFELONG PARTNER, DOROTHY

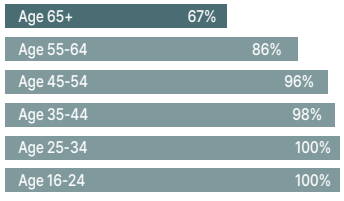
Mission

Live · Share · Thrive

Technology and design, prioritizing seniors and other groups vulnerable to digital challenges from the outset

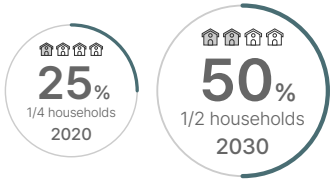
Problem

Digital Divide (2020)

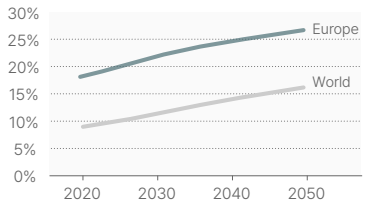


Frequency of daily internet use in UK

Senior Household (2030)



65+ Population (2050)

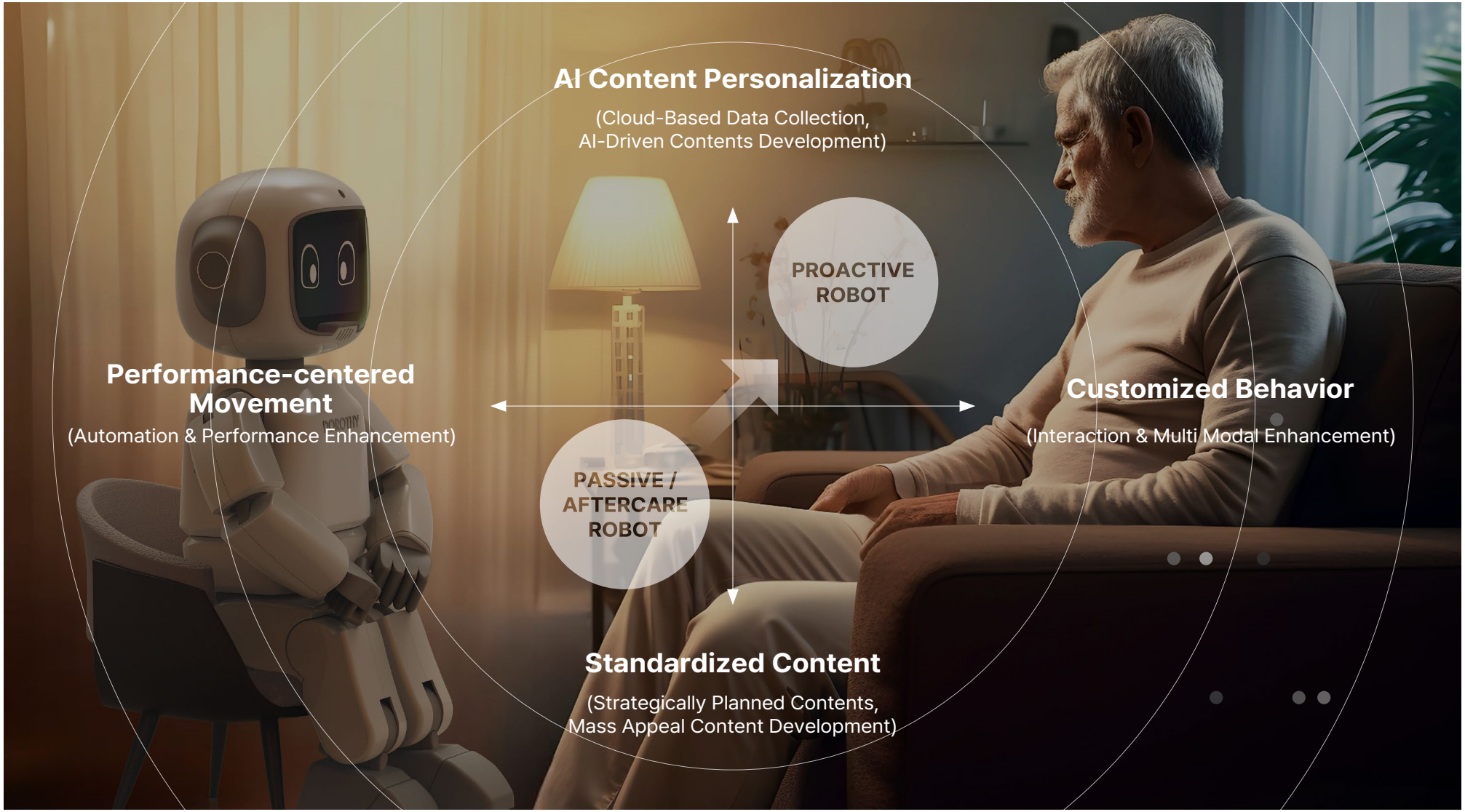


Situation

Senior Digital Paradox

As the COVID-19 pandemic has expanded the non-face-to-face environment, the elderly are increasingly excluded from the opportunities provided by technological progress.

Positioning Map



Digital Equity

Bridging Digital Divide

DOROTHY ensures everyone's accessibility to digital technology. DOROTHY provides digital literacy education, such as smartphone use or online shopping, and supports administrative tasks.

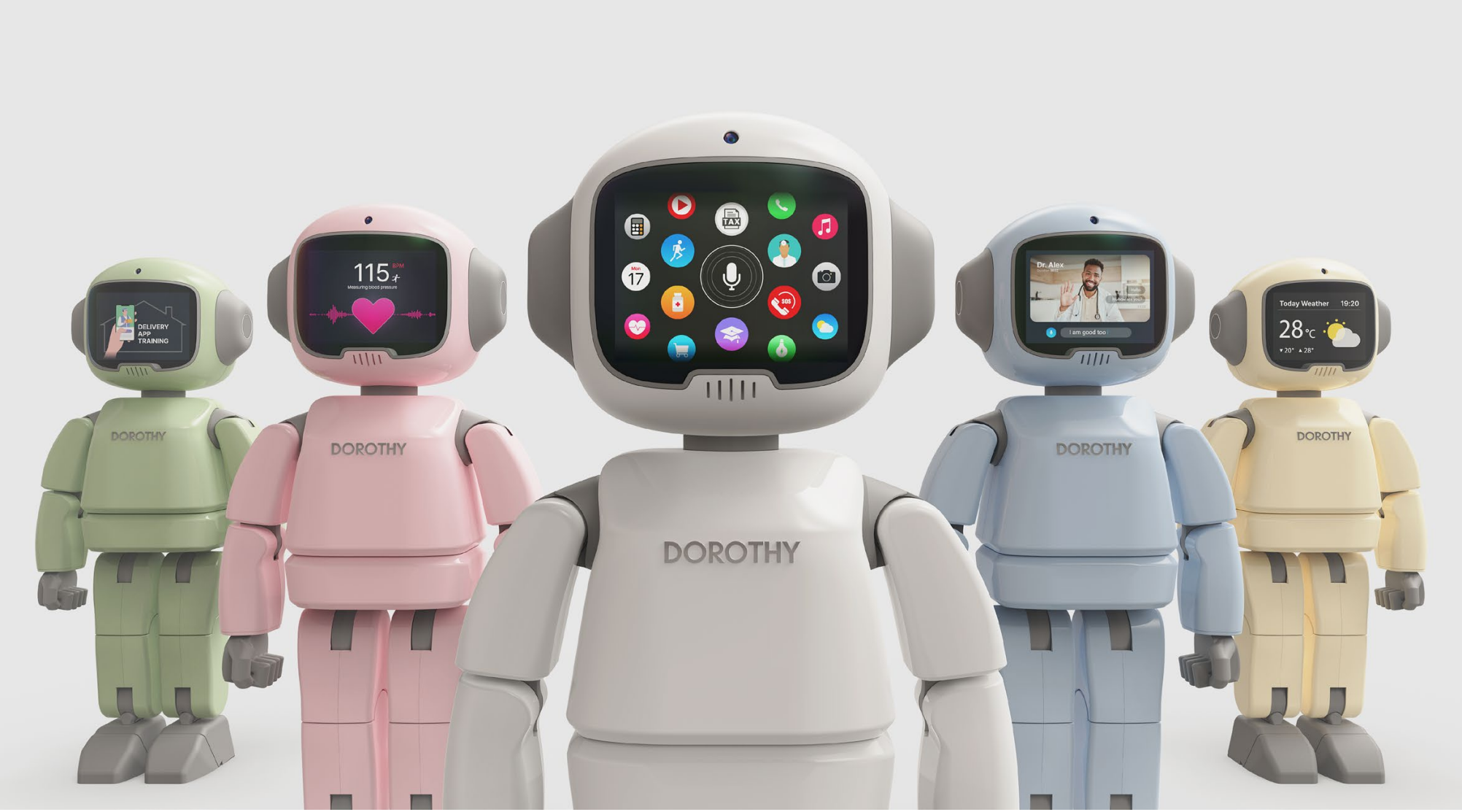
Universal Digital Tech

DOROTHY offers personalized services through human-like conversation.
People with digital vulnerability participate in and benefit from the digital economy. DOROTHY, designed with a childlike motif, interacts with users through conversation, games, educational activities, health monitoring, and other daily life support.

Bespoke AI Companion

Through interaction with users, DOROTHY collects and analyzes data, identifying users' patterns and preferences.
Utilizing this information, it provides AI-based personalized services, evolving into a more efficient companion that increasingly aligns with users' lifestyles and needs.

AI Content Personalization



Home Tutor

Validated Education

In 2021, I served as the leader of the education team in Seoul, which was dedicated to bridging the digital divide. Our team launched a Robot Education project to respond to the exclusion and isolation of seniors during the COVID-19 pandemic.

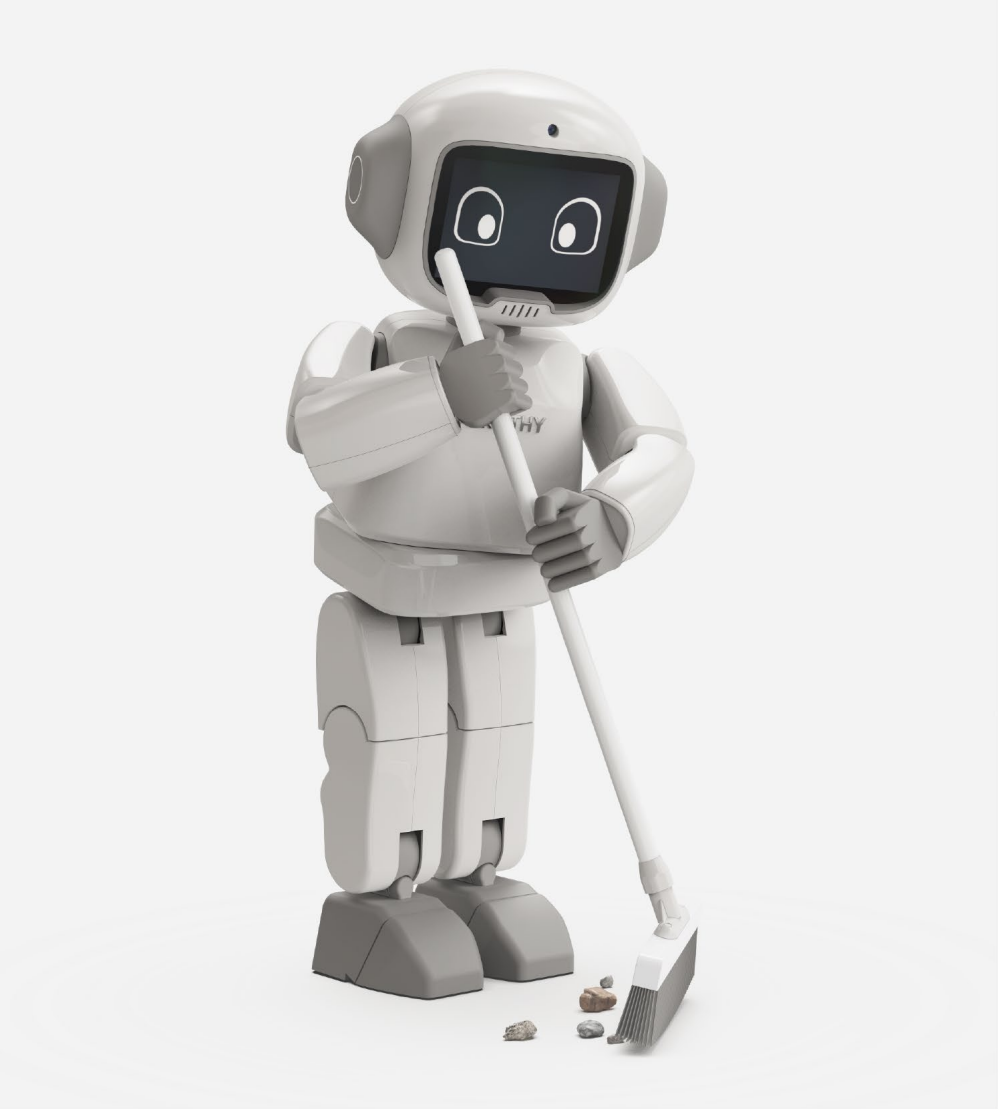
From August 2020 to January 2021, a satisfaction survey conducted among 3,384 seniors who completed the training showed an average satisfaction score of 83.2, indicating 'very satisfied' responses. Particularly, feedback highlighted that repetitive, focused learning was beneficial for long-term memory.

Awarded Project

Thanks to its Robot Education project, UNESCO selected Seoul as an excellent city in the 'Education' sector at the 2021 Netexplo Linking Cities awards.

NETEXPLO AWARD WINNER 2021

Customized Behavior



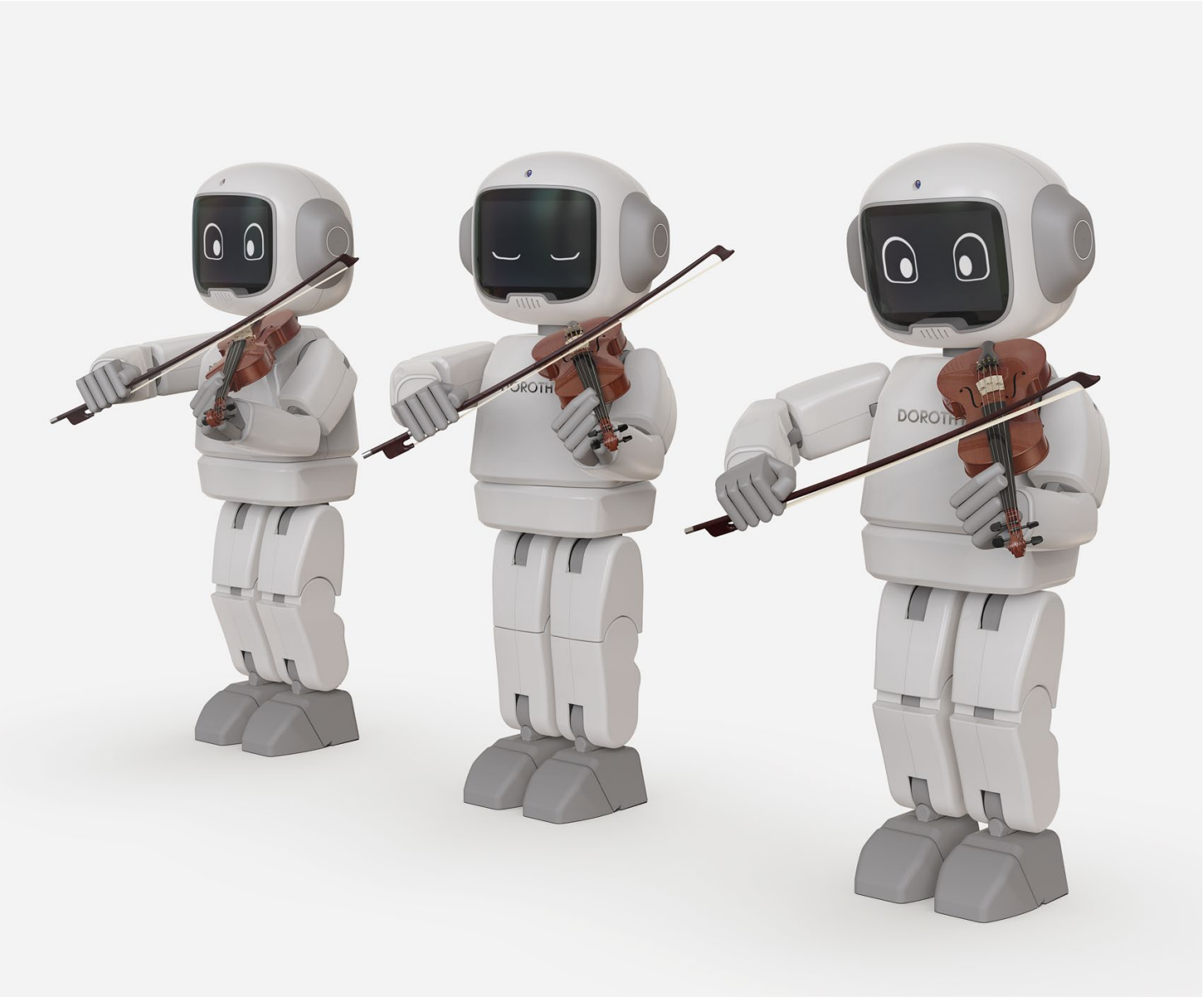
Home Musician

Versatile Assistants

DOROTHY, designed to mimic human joints with 28 degrees of freedom (28 DOF), can perform not only simple physical tasks like cleaning and carrying to support seniors' daily lives but also engage in complex artistic activities such as playing musical instruments.

Symphony Performance

DOROTHY's AI-powered learning capabilities and tireless performance enable it to complete symphonies.
DOROTHY's performance is sufficient to shine on solo stages, and it harmoniously blends as an orchestra member alongside human performers.



Video Link : vimeo.com/915741252

Smart City Policy

Connectivity

Smart City Services

Safety | Education | Healthcare | Energy | Transportation | Administration | Environment

Smart Home Data Collection ↑↓ Data Analysis and Service Management

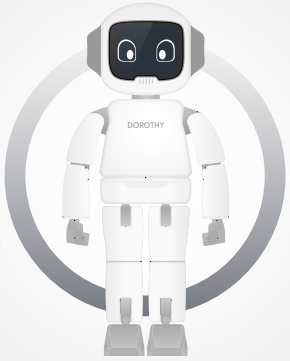
Cloud

Home Robot Hub

[SW] AI Content Personalization

- Health and Wellness Information
- Digital Literacy Education
- Leisure Activities
- Silver Life Information
- Social Participation

Uploding



Uploding

[HW] Customized Behavior

- Item Moving Assistance
- Musical Performance
- Device Operation Assistance
- Walking assistant
- Household Chores Assistance

Lifelogging ↑↓ Monitoring and Service

Home Devices Data Collection ↑↓ Monitoring and Control

Data

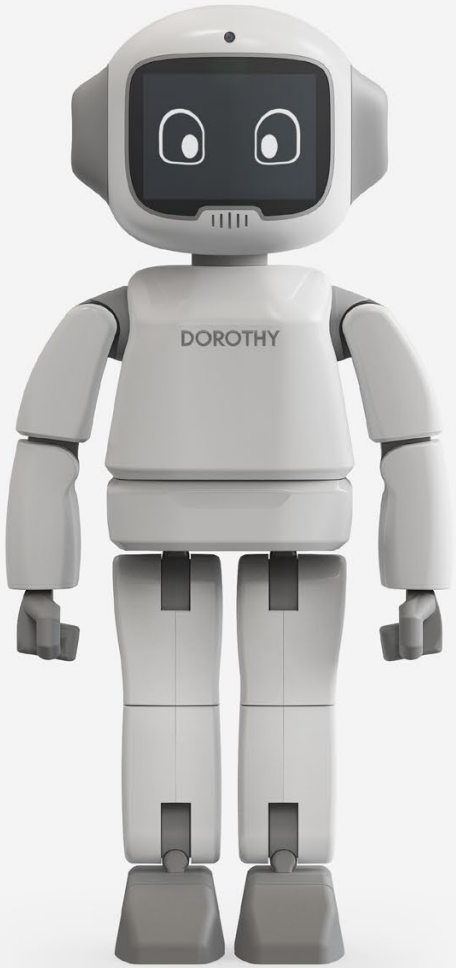
User

Senior | Disabled

Home Devices

Appliance | Lighting | HVAC | Sensor | Door Lock

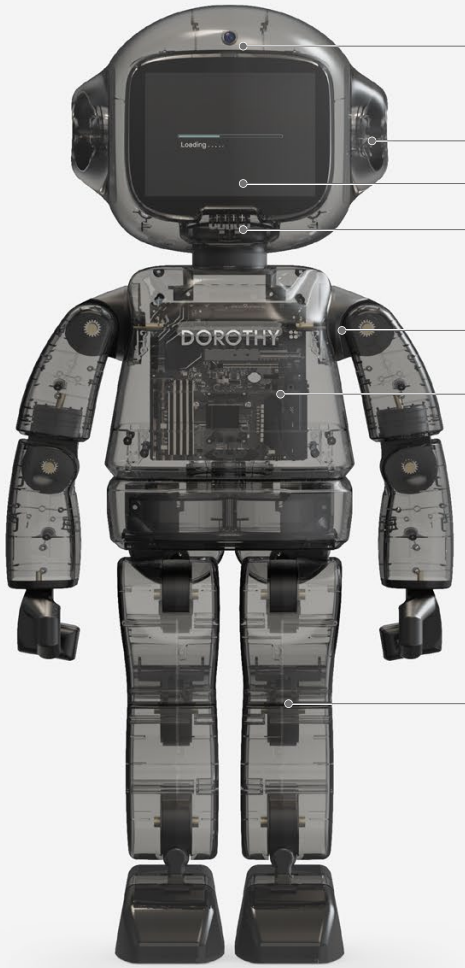
Hardware



Interaction with
Personalized Contents

Work by
Dual-Armed Mechanism

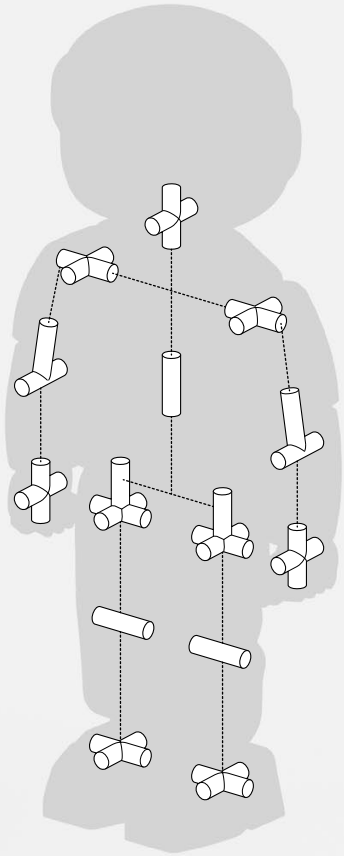
Movement by
Dual-Legged Mechanism



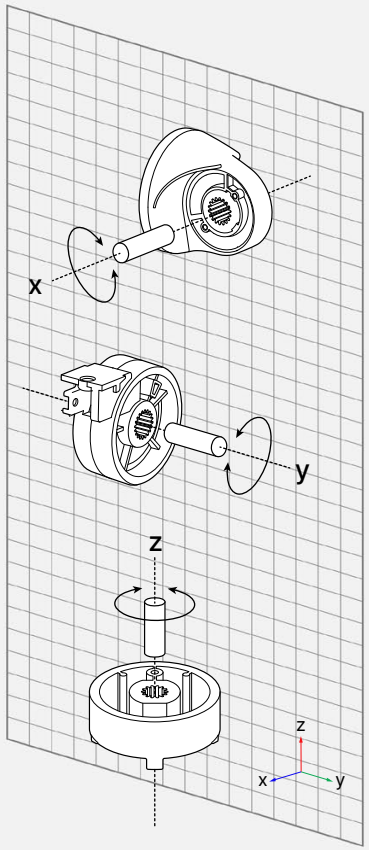
CAMERA (FHD RGB)
Microphone
LCD Display (10.1″)
Speaker
Joint
CPU
Actuator

Degrees of Freedom (For Human Joints)

Functional robot
including the exoskeleton shells

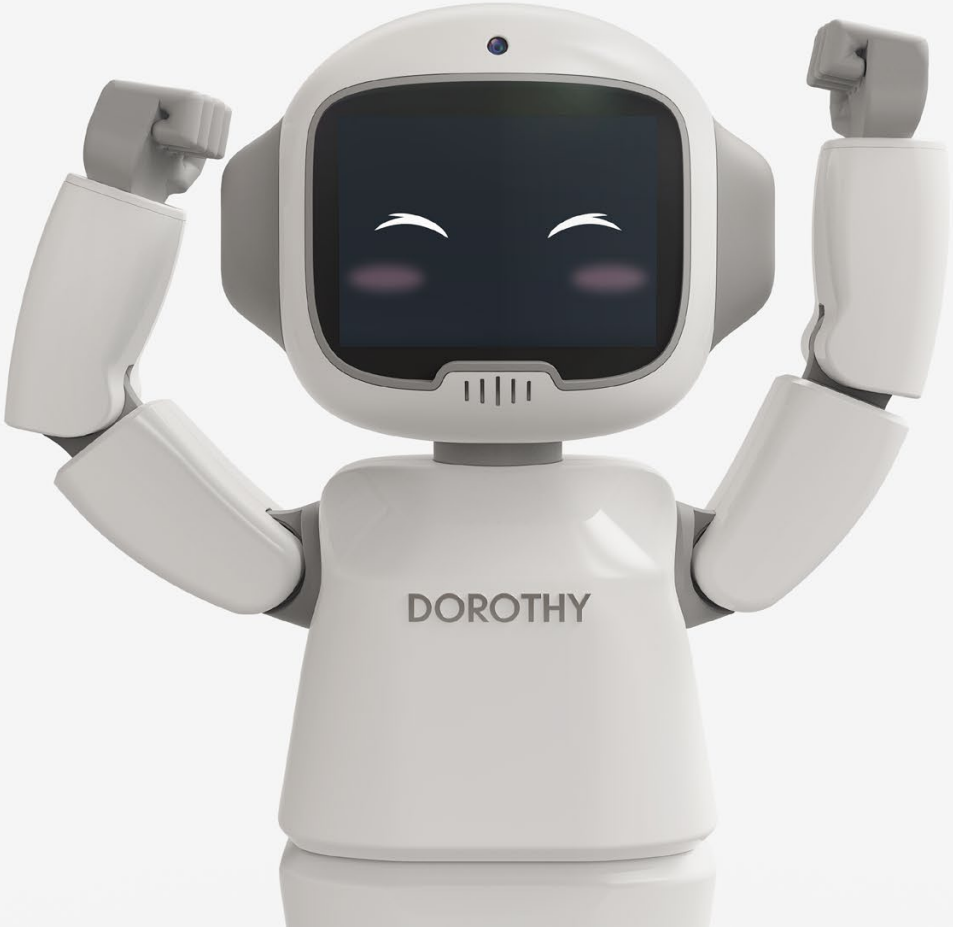


Schematic diagram of the joints' positions and orientations

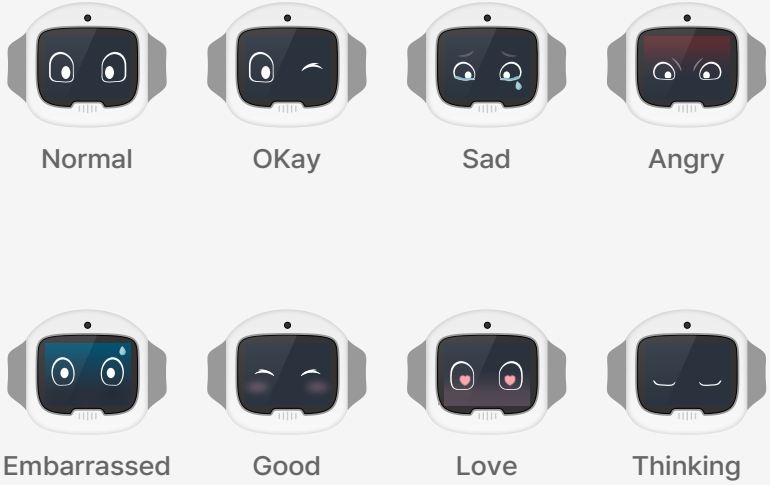


Joints' design and configuration
(Arm : 14 DOF, Hand : 2 DOF, Foot : 12 DOF)

Robot Face

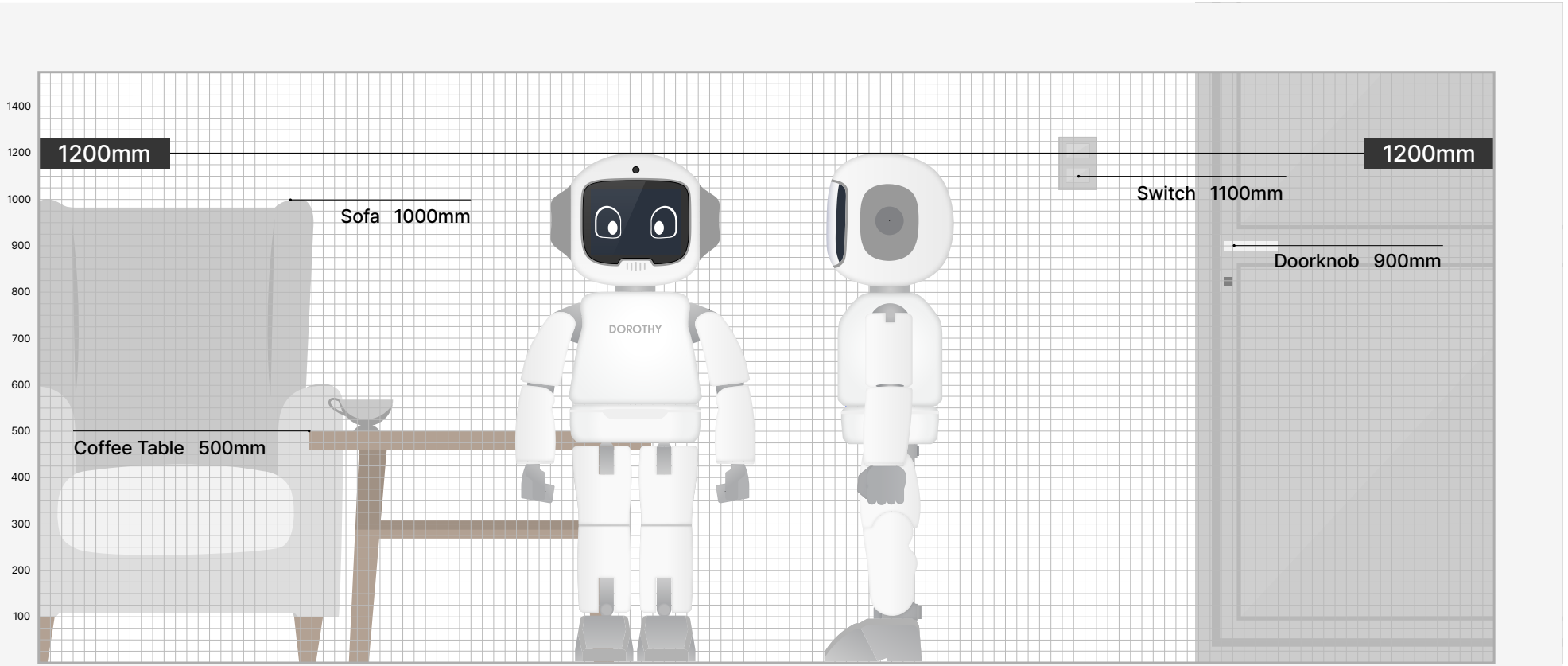


Eight Facial Expression



Animating a robot's facial expressions enhances its ability to mimic human behavior. However, humans can only retain limited information at once, ideally less than nine items. DOROTHY is equipped with eight distinct facial expressions to align with this cognitive limit.

Robot Size



Users experience a sense of friendliness when interacting with robots smaller than themselves, which facilitates the rapid formation of a close connection. Conversely, interacting with robots that are larger than users can evoke feelings of anxiety and intimidation.

DOROTHY is designed to match the average height of elementary school children in the lower grades, approximately 6-8 years old, to enhance user-friendliness.

02

ANYVATOR

An elevator that multiple users can input destinations
on their own eye level at the same time

GOLD AWARD 2017

Smart Elevator

The Elevator To Anyone

The ANYVATOR is an elevator that allows multiple users to input destinations at their own eye level simultaneously. It features a large screen display that supports multi-touch, enabling users to enter multiple destinations.
Also, if the user touches anywhere on the wall by their palm, a popup to enter the destination will appear, which allows the users free from the height limitation.

In addition, it provides users with various information such as the current floor, time and weather by the screen display installed on the right side.

Awarded Design

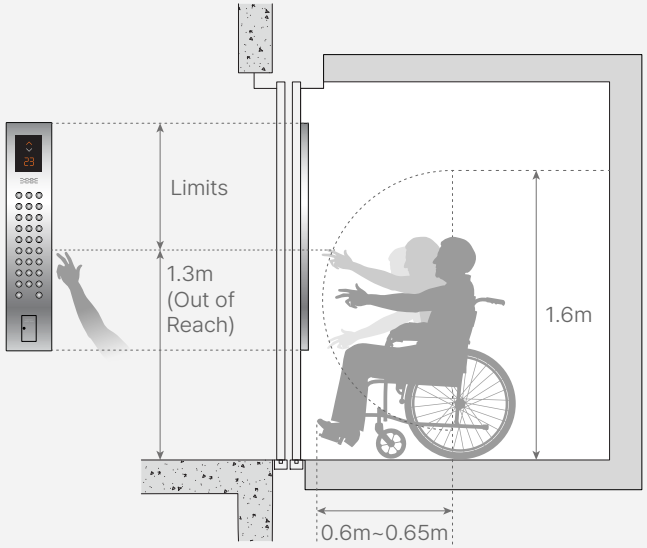
The ANYVATOR has demonstrated its global design competitiveness by earning the iF Professional Concept Design Awards 2017 (GOLD).

Project Type : Team
Role : Assigned Solo Task
Contribution : 100%
Duration : Mar 2016 to Nov 2016

Background

Accessibility Limits

Since elevator buttons are fixed at the standard height for adults, a spatial limitation exists for users. Specifically, wheelchair users and individuals of short stature may find using the elevator difficult.



Waiting Time Occurrence

There is the inconvenience of having to wait for one's turn to input the destination floor when multiple people are present.

Novel Experience

More Than Vision

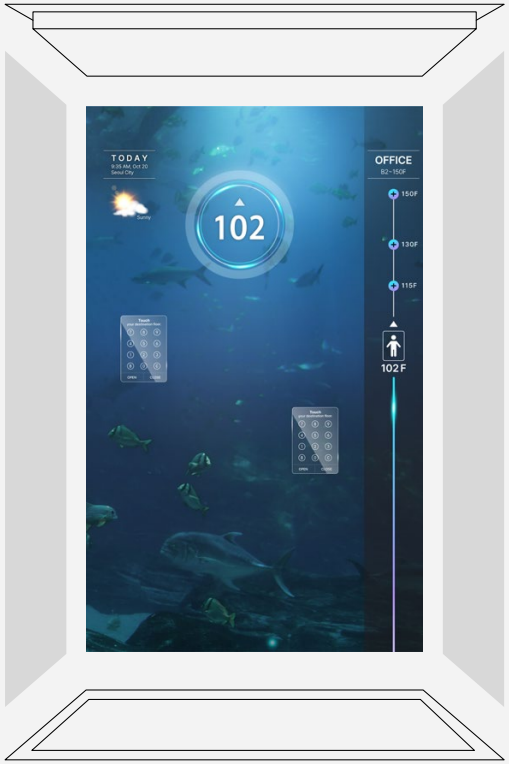
Experience Convenience

Custom Screen

More Than Space

Experience Advanced Joy

Current Location

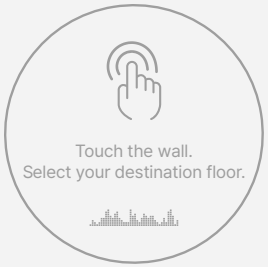


User Favorite Spot

AI Art Gallery

Main Interface

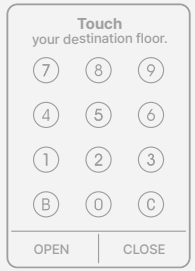
Activate the Touch Wall



A voice prompt instructs to touch the large screen display. Anywhere the user places their hand becomes activated.

The top left corner provides the current time and weather information.

Select the Destination



A popup appears where the user places their hand, allowing them to enter the destination floor from a convenient location.

The destination floor and current floor number can be checked through the floor display screen on the right.

03

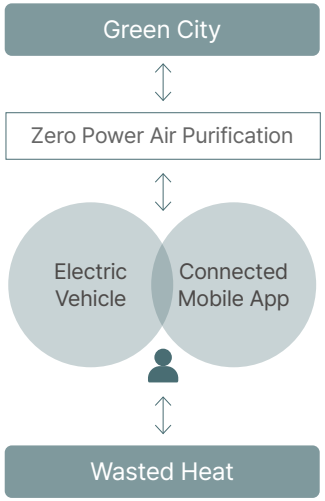
ELECTREECITY

An electric vehicle (EV) equipped with self-powering
converting waste heat into electricity, and zero power air purification

Green Catalyst

Tree Planting Effect, EV

ELECTREECITY is an innovative EV that naturally generates and stores electricity from temperature differences, allowing the vehicle to be used as an EV charging station while parked. Additionally, it purifies urban air by utilizing the movement of the vehicle.



Project Type : Team
Role : PM, Research, Design, Rendering
Contribution : 80%
Client : DRIMAES
Duration : Sep 2023 to Feb 2024

Current Situation & Problems

Transforming into a Smart City

Increase in EVs | Increase in Sensors | Increase in Electronics

Challenges Facing Power Consumption

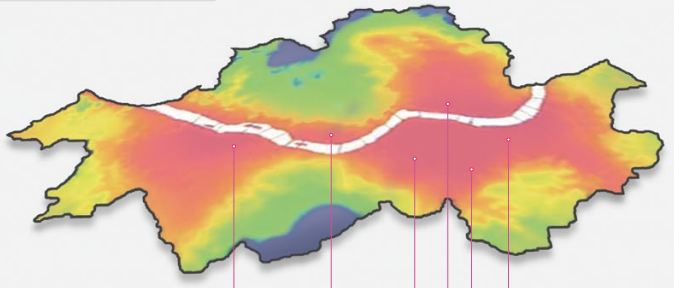
- Limitation in Battery Charging Capacity
- Insufficient Electric Charging Infrastructure
- Environmental Destruction & High Electricity Fees

Need for Energy Harvesting

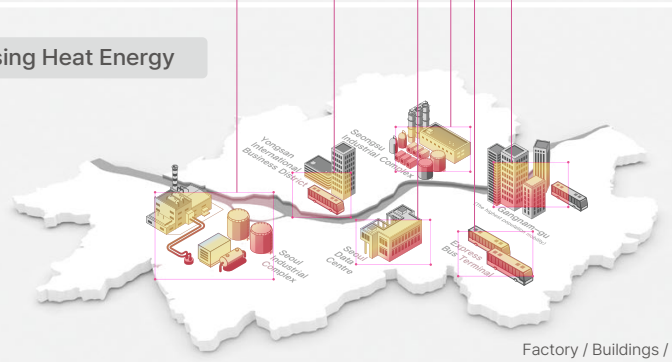
Increasing number of sensors

Seoul IoT center (S-Dot)

Heat island phenomenon



Increasing Heat Energy

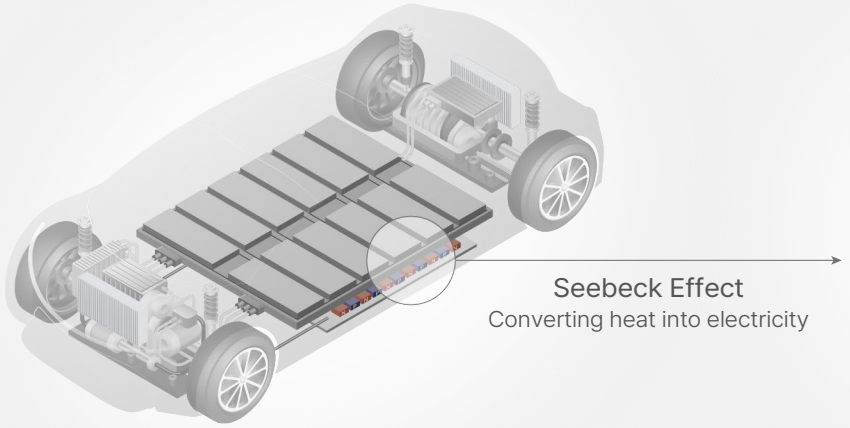


Factory / Buildings / Vehicles / Data Center

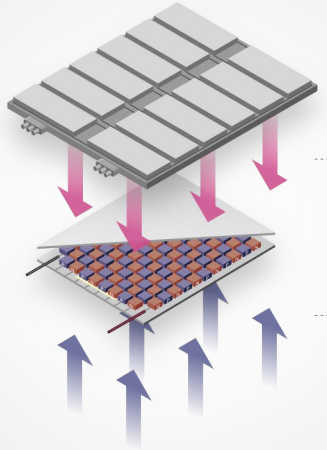
Energy Harvesting

Converting Wasted Heat to Electricity

Structure



Seebeck Effect
Converting heat into electricity

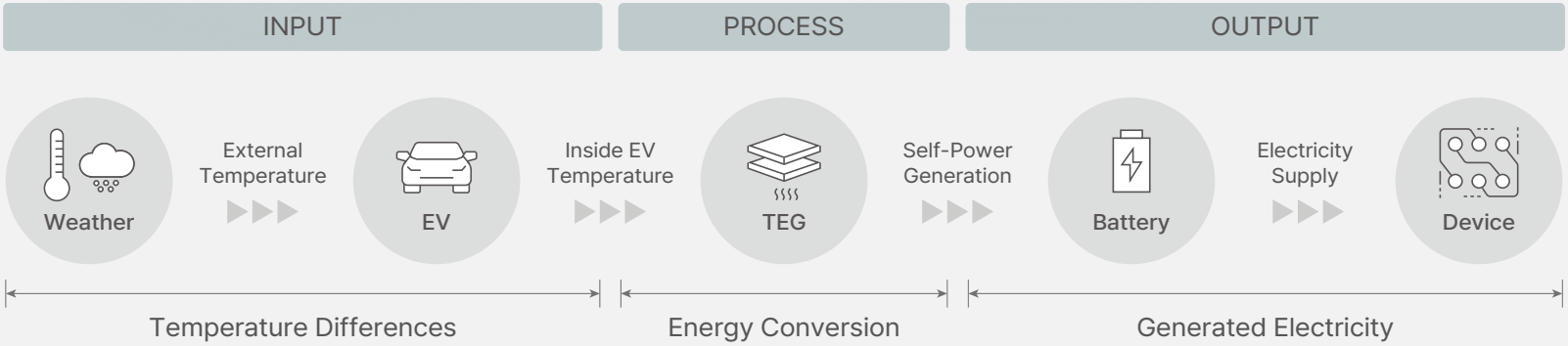


EV Battery Module
Operating Temperature:
20°C to 40°C

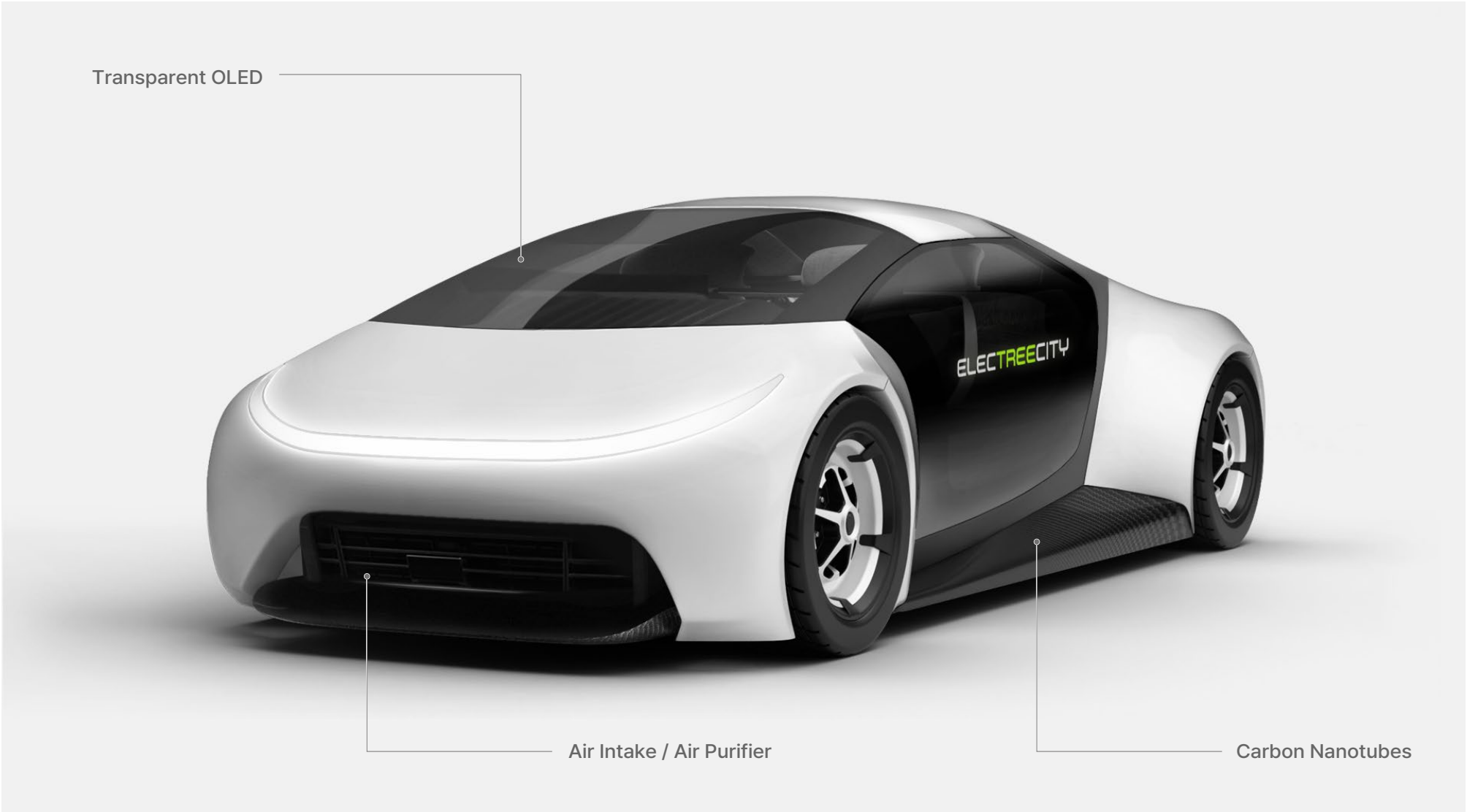
TEG Module
Principle: Generating Electricity
by Temperature Difference

Ambient Temperature
Range: -10°C to 40°C

System



Exterior


Transparent OLED
ELECTREECITY
Air Intake / Air Purifier
Carbon Nanotubes

Infotainment

TRIP:
It intuitively shows the drivable distance based on the current battery level.

BATTERY:
ELECTREECITY generates electricity through regenerative braking energy and a regenerative thermal energy, indicating the charging type with colors.

Connected App

Infotainment Display

Linkage function

Leaf Me	+	Manage Order	+	Battery Analysis
EV Owners' Social Online Community		Selling My Electric Energy from EV		Information on charging costs, income

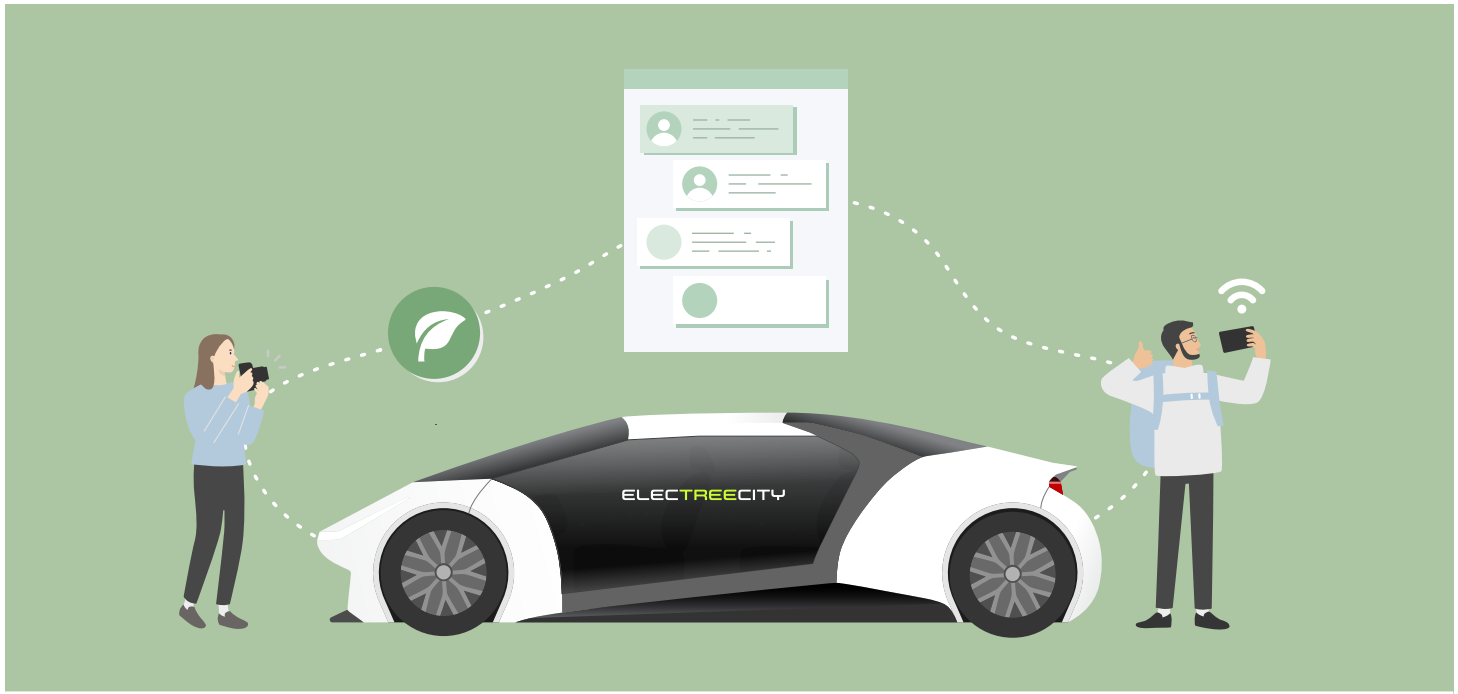
Green Economy

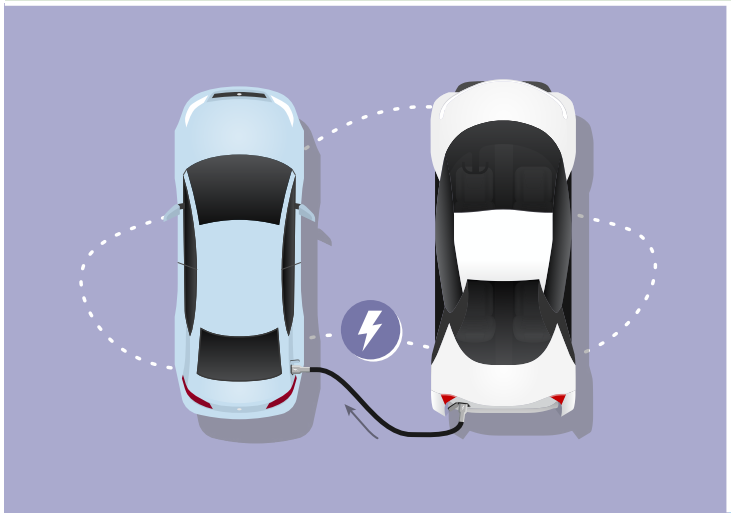
Regenerative Energy

ELECTREECITY creates new electricity, doing more than just being sustainable, aiming for more proactive environmental improvement.
ELECTREECITY utilizes the Seebeck effect of a thermoelectric generator (TEG) to naturally convert the temperature difference between the ELECTREECITY and its surrounding environment into electrical energy for storage.

Selling My Electricity

ELECTREECITY enables 24/7 electrical energy production and can be used as a charging station anywhere. Through a connected app, users can not only manage energy efficiently but also sell any electricity they generate.
Owning ELECTREECITY naturally incorporates renewable energy production into daily life, simultaneously offering economic, social, and environmental benefits.



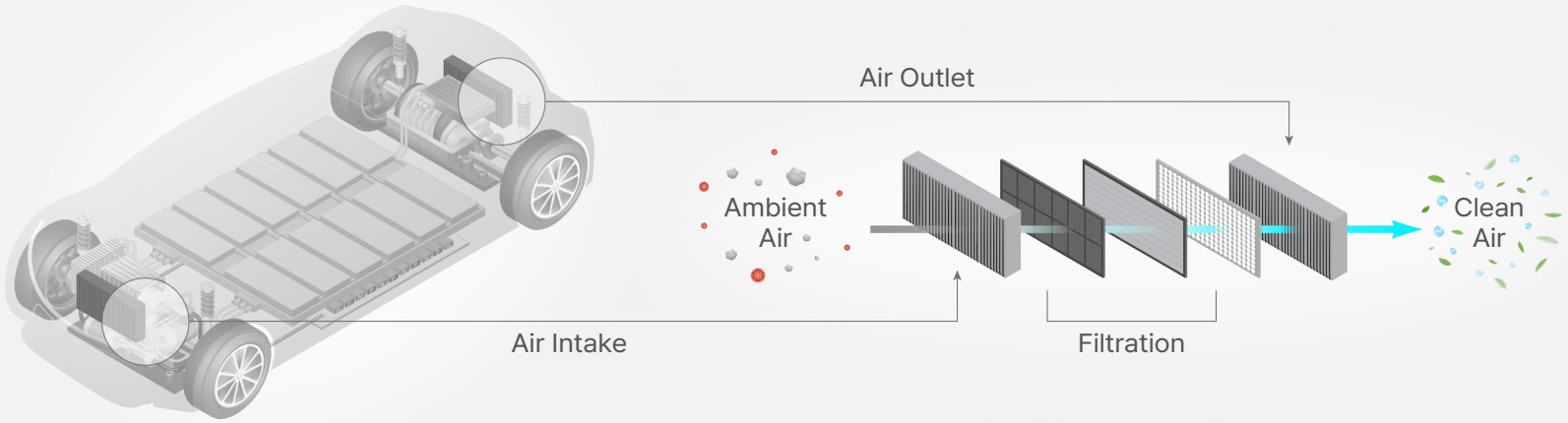


Video Link : vimeo.com/916540498

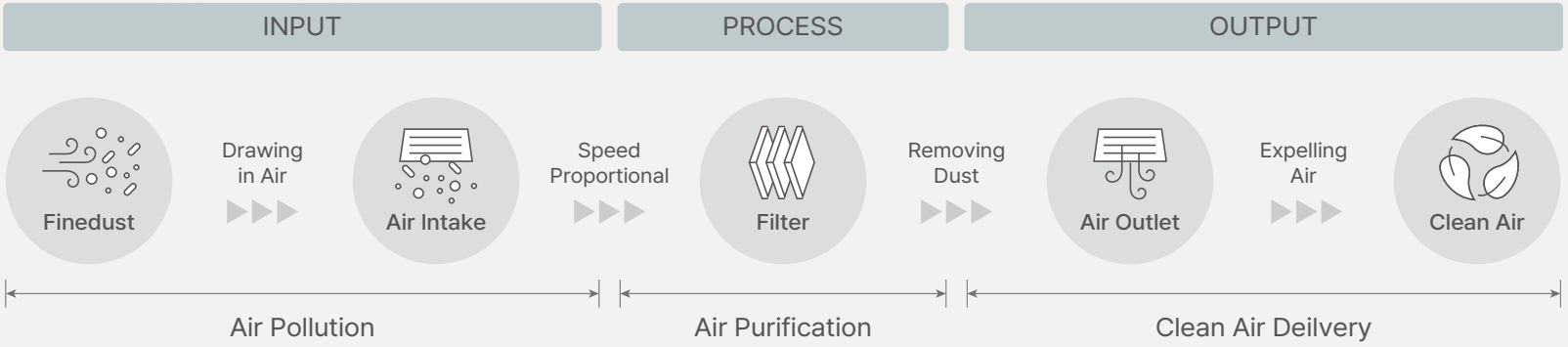
Moving Air Cleaner

Zero Power Air Purification

Structure

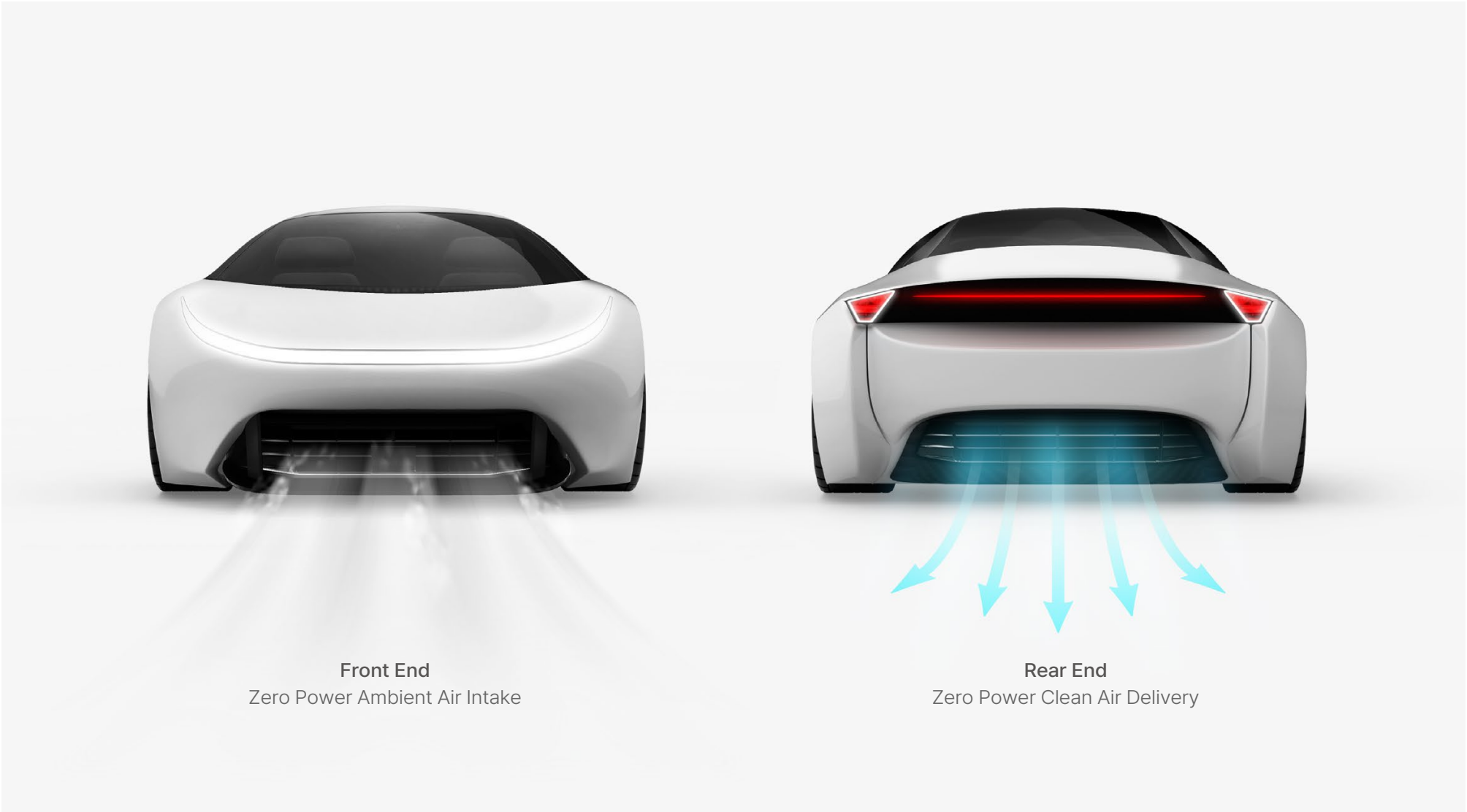


System



Clean Air Deilvery

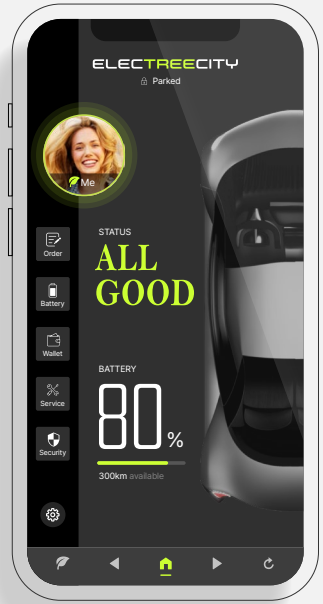
Zero Power Air Purification



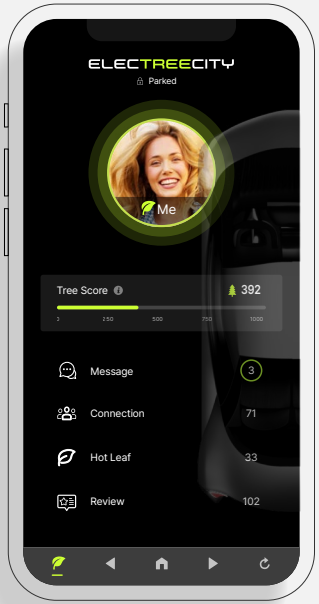
Front End
Zero Power Ambient Air Intake

Rear End
Zero Power Clean Air Delivery

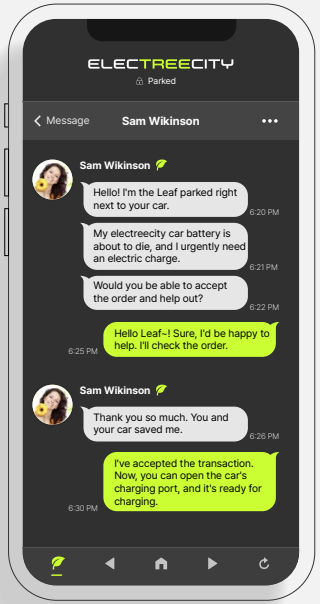
Leaf Me



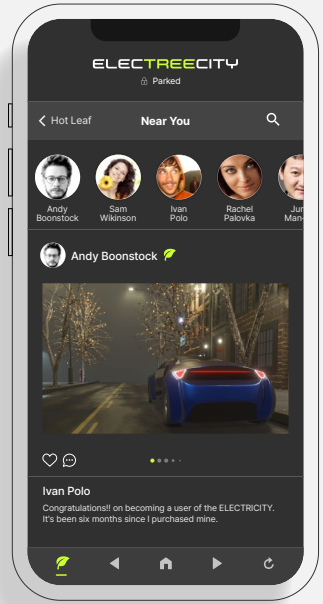
· Tap the Leaf Me Button



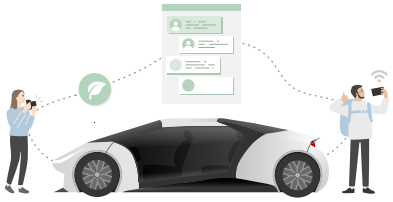
· Tree Score section
· Four menus section



· User-to-User Messages



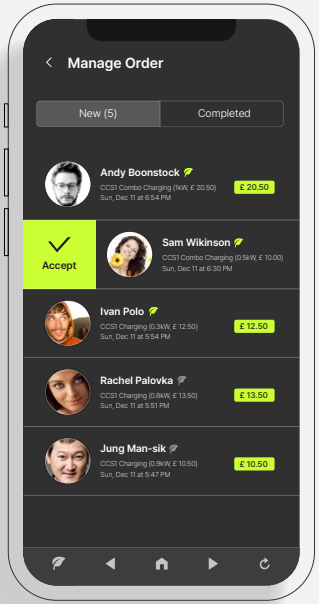
· Information Sharing
· Social Relationship



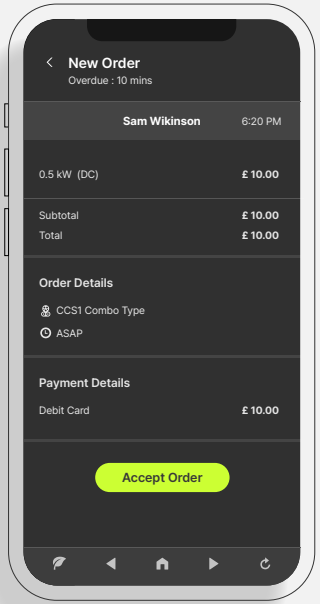
Leaf Me is an online community where users engage in activities under the name 'Leaf.' Users are evaluated through the 'Tree Score' for their participation in these activities. This evaluation goes beyond simple user-to-user ratings, encompassing various factors such as environmentally friendly driving, prompt order responses, information sharing, and more. A high Tree Score can lead to perceptions like being 'trustworthy' and an 'environmentalist,' turning it into a fun element contributing to a greener lifestyle.

Manage Order

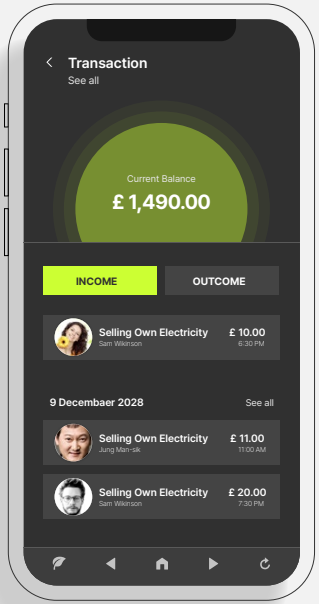
· Tap the Order Button



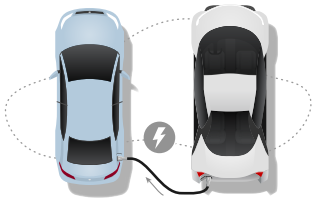
· Order Requester List
· Tap to Select Order



· Transaction Acceptance

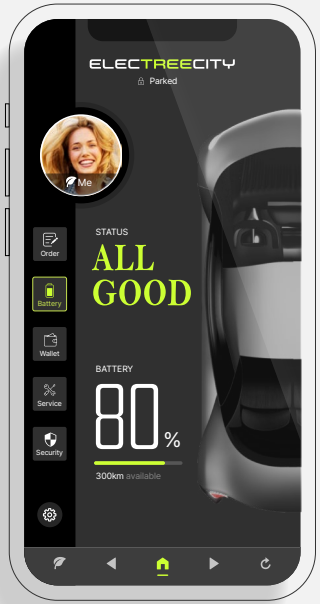


· Transaction History

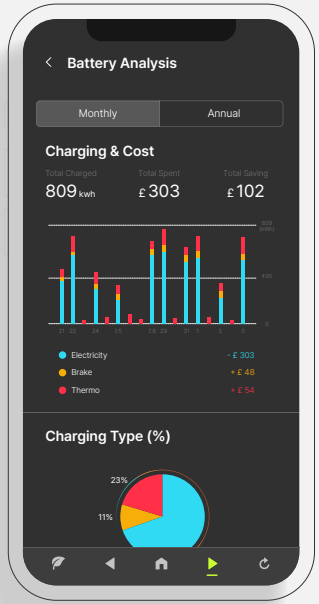


ELECTREECITY utilizes thermoelectric modules to generate electricity, allowing continuous energy production 24/7. As a result, it can be transformed into an electric charging station anywhere. Through an app, users can order and conduct charging transactions for Electricity, ranging from 1kW to 300kW. Instead of fixed charging fees, energy sharing at mutually agreed-upon prices is possible. This way, users can flexibly charge electricity as needed and adjust energy costs according to their preferences.

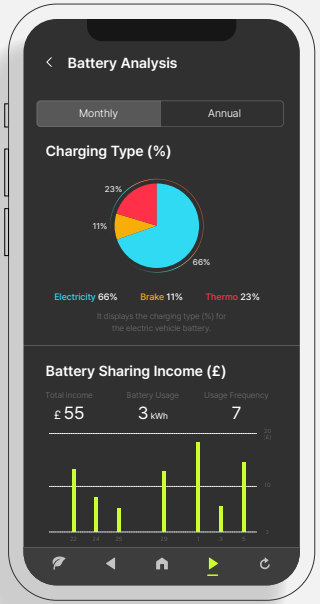
Battery Analysis



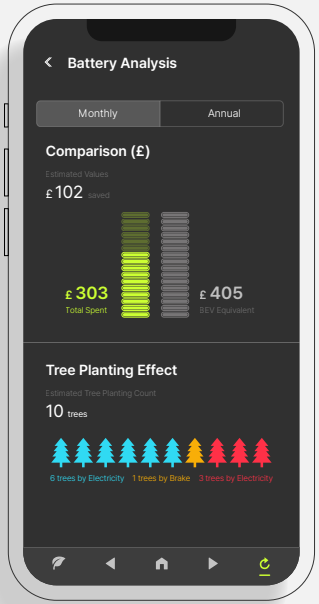
· Tap the Battery Button



· Charging & Cost



· Charging Type (%)
· Battery Sharing Income (£)



· Comparison (£)
· Tree Planting Effect

ELECTREECITY not only recovers braking energy but also generates electricity using thermoelectric modules attached to the battery, utilizing temperature differences. Through a mobile app, users can easily access the battery analysis. Effective battery management is possible by comparing charging costs, charging types, and battery-sharing income, along with the management costs of BEV Equivalent. This process is connected to the tree planting effect on Earth, showcasing in an infographic how many trees the user has planted.

04

EVNESS

Sustainable power solution that combines
renewable energy and recycled EV batteries

Off-Grid ESS

Sustainable Power Solution

EVNESS is designed as a system that integrates renewable energy with the reuse of electric vehicle (EV) batteries, providing a sustainable energy solution and offering a means to supply electric power even in areas with limited access to electricity.

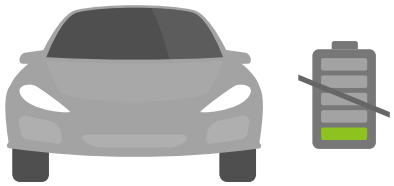
Reusing Waste batteries

By 2030, the number of used batteries is expected to increase to around 100,000 battery units. EVNESS recycles used EV batteries to create new battery packs, which are then stored in an Energy Storage System (ESS).
This ESS utilizes renewable energy sources, such as solar and wind power, to generate and store electricity. The stored power can be supplied through the ESS fast charging service or the battery pack rental service.

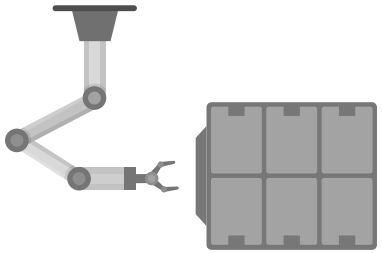
Project Type : Solo
Contribution : 100% Personal Effort
Client : DRIMAES
Duration : Nov 2023 to Dec 2023

EV Battery Reuse Process

Used EV Battery Collection

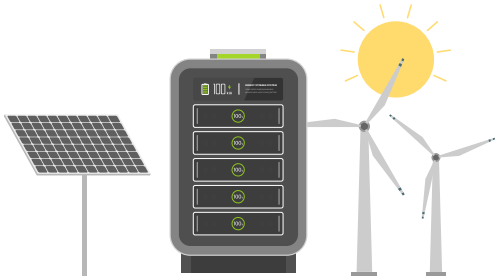


Dismantling / Separation



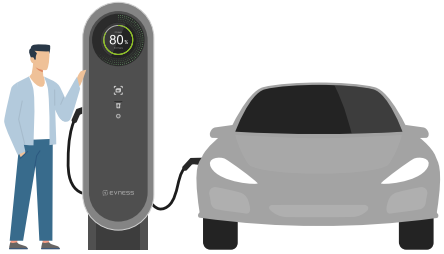
Battery Refurbishment (2nd Life)

ESS Charging System



Battery Rental Service

ESS Fast Charging Service



Fast Charger

Visual Accessibility

Placing the circular indicator above eye level enables EV users to identify the charging location and easily monitor the charging process from a distance.

Circular Indicator

The circular LED progress bar shows the charging status by rotating for 'charging' and stopping for 'complete', offering clear feedback with low power use. The circular LCD delivers detailed textual and graphical information.

Video Link : vimeo.com/916875363

ESS Storage

Rebirth of EV Batteries

ESS Storage is a system that efficiently uses and manages recycled EV battery packs and renewable energy. Designed with a battery motif, this system visually represents each stored battery pack as part of an energy storage, symbolizing a charge status bar.

Lighting the Planet Again

The brightness of the LED installed in the shape of the top '+' electrode allows for checking the battery pack's charge status, symbolizing the collection of used batteries to light our planet once more. Additionally, an LCD on top of the energy storage provides detailed textual and graphic information.

Portable Battery Pack

User-Friendly Size

Off-Grid Energy

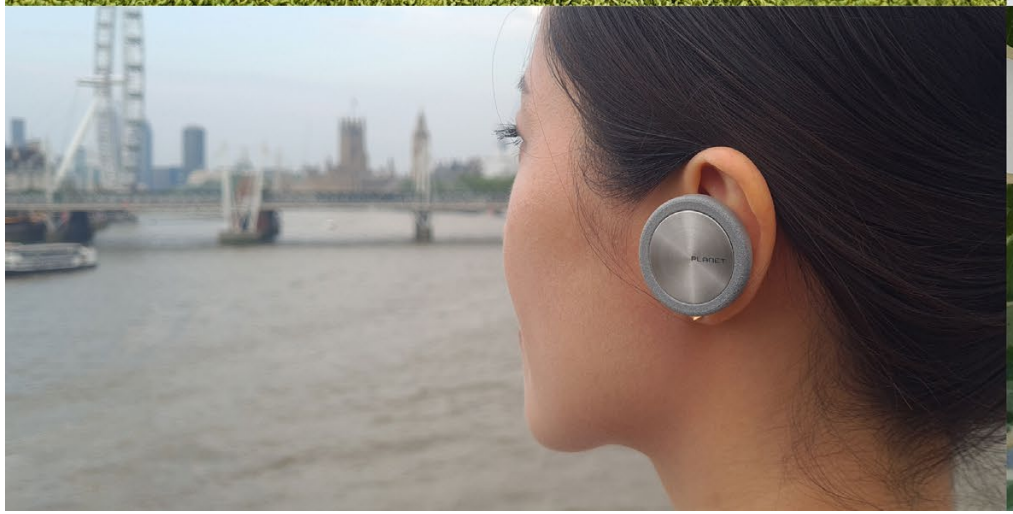
EVNESS operates independently from the central power grid, utilizing renewable energy sources such as solar panels and wind turbines to generate electricity for use in vehicles, homes, and communities.

This system is particularly suited for remote areas away from urban centers, locations pursuing self-sufficient living, or places that prioritize environmental sustainability.

05

PLANET

Everyday items converting thermal energy into electricity,
naturally turning users into environmentalists.



Regeneration

Environmental Solution

PLANET products present an innovative solution to the pressing challenge of unsustainable battery consumption in smart cities. By harnessing wasted thermal energy from everyday activities, PLANET products introduce an inclusive and user-centered approach to environmental conservation.

Unintended Regeneration

PLANET products, including a mug, mouse, earphones, and thermometer, integrate seamlessly into everyone's daily lives, naturally storing electricity during their use. For instance, the thermal energy from hot drinks poured into the mug can be converted into electrical energy and stored in a portable battery located in the mug handle. Everyday activities that unintentionally generate thermal energy are sufficient to charge a small battery.

Project Type : Solo
Contribution : 100% Personal Effort
Duration : Dec 2022 to Jun 2023
Exhibition : RCA 2023 Graduate Show at Truman Brewery, London

PLANET System

INPUT

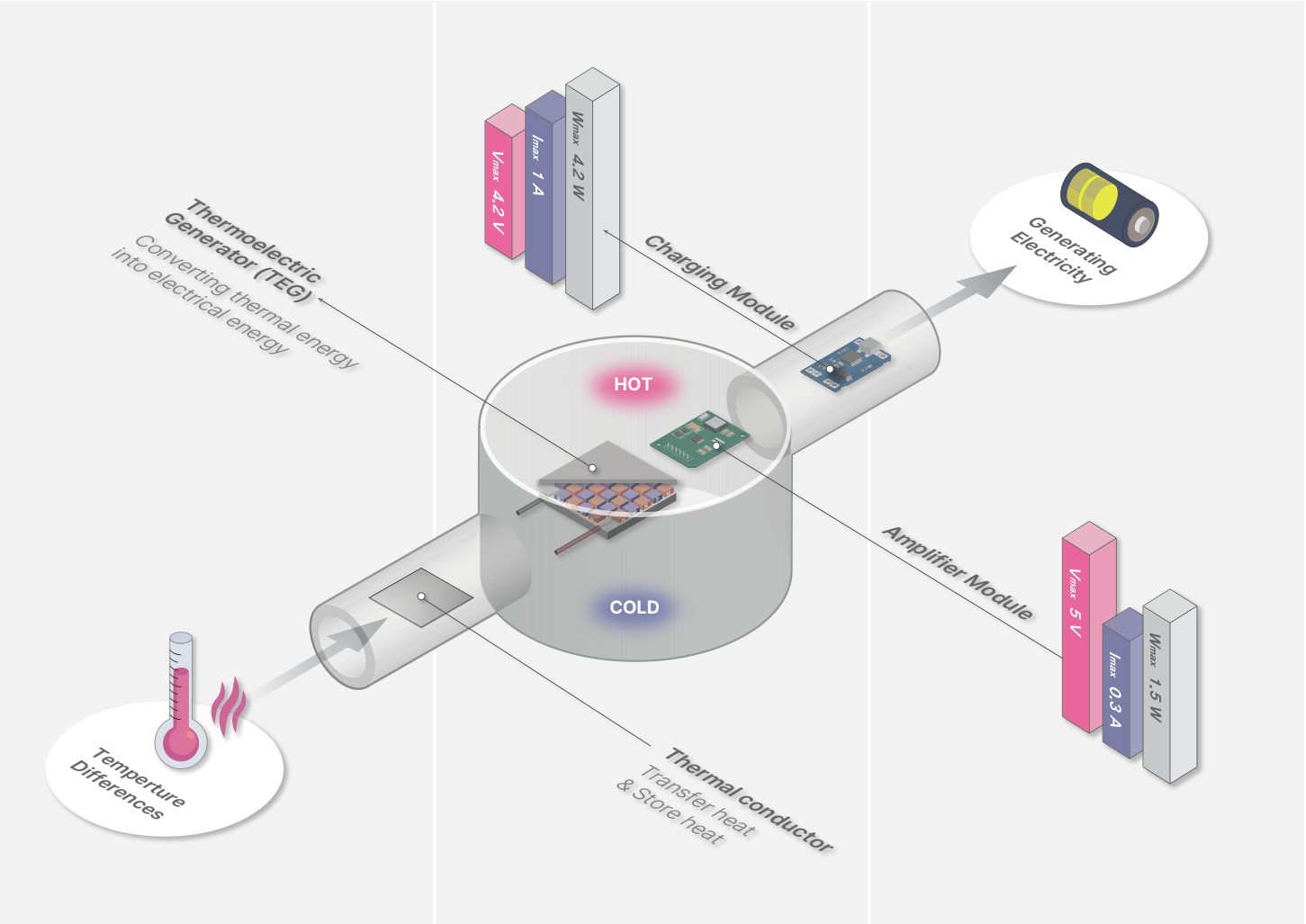
Temperature differences exist nearly everywhere in both natural and artificial environments.
Temperature differences around us can be a significant resource. Let's look for temperature differences.

PROCESS

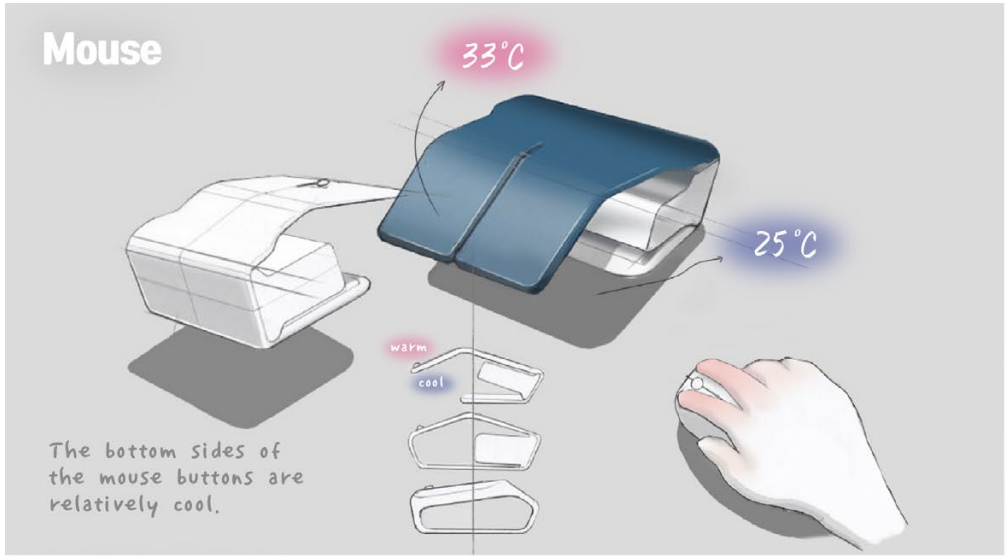
PLANET system takes advantage of any temperature difference between its two surfaces.
In thermoelectric generator (TEG) and amplifier modules, thermal energy is converted into electrical energy, and electricity is amplified.

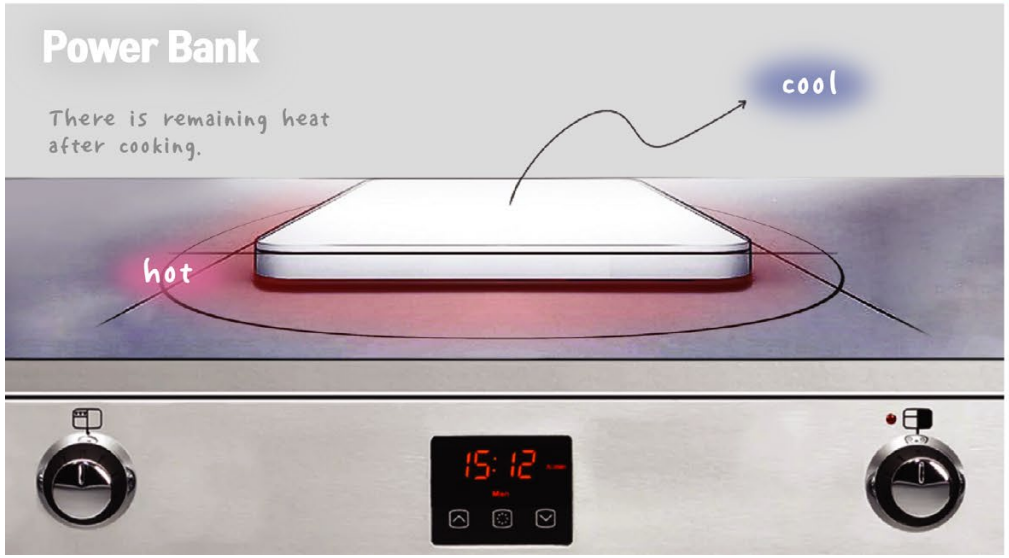
OUTPUT

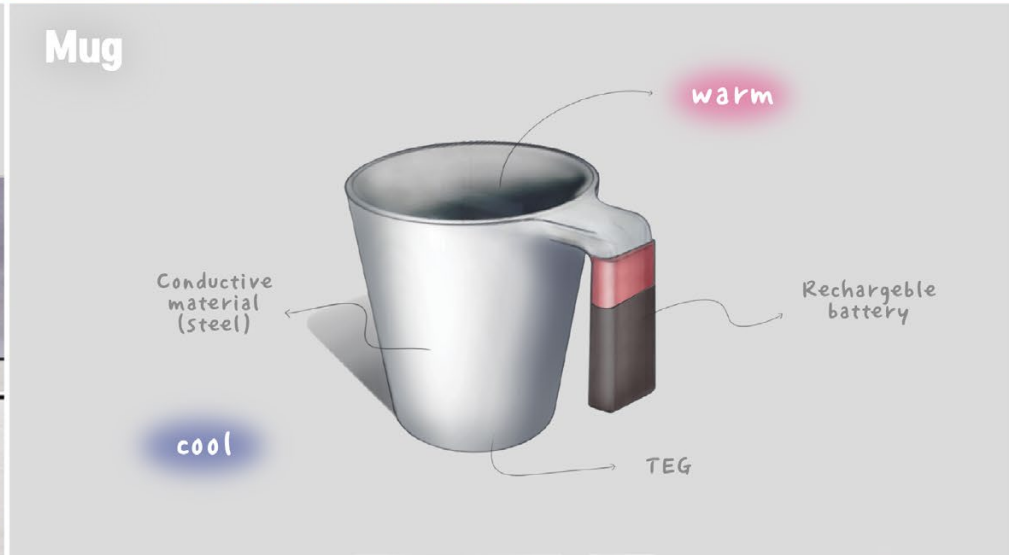
The generated electricity is stored in a rechargeable battery, and users can utilize it anytime.



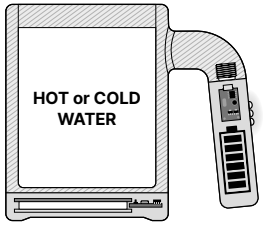
Idea Sketch (Everyday Items)







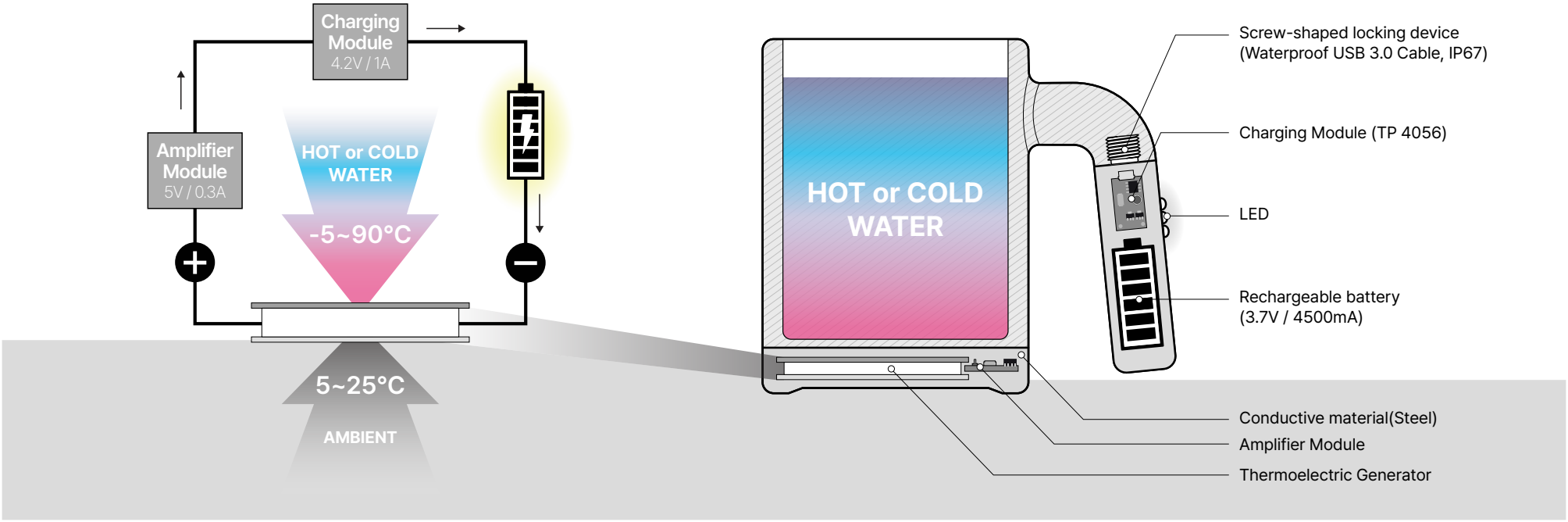
1 PLANET
MUG

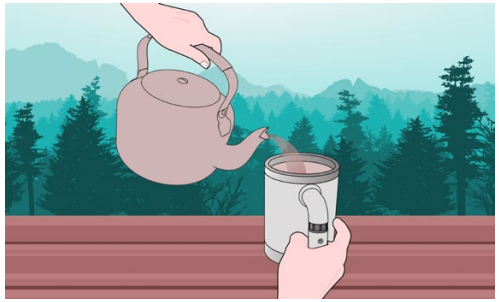


The thermal energy generated by hot or cold beverages poured into the mug is converted into electrical energy.
This electricity is then stored in a portable battery integrated into the mug's handle.

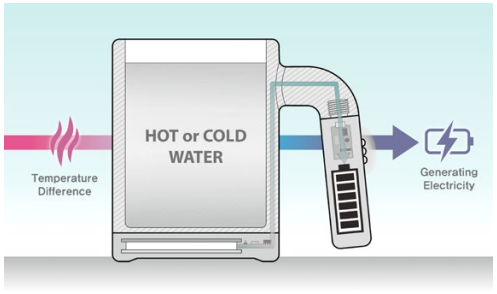
Video Link : vimeo.com/839026559

Mug Manual

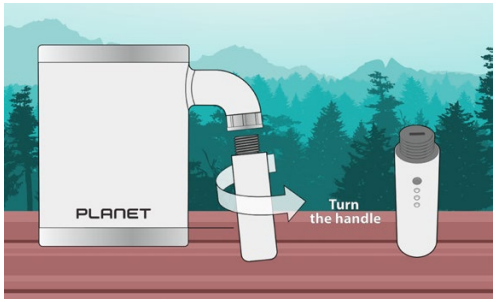




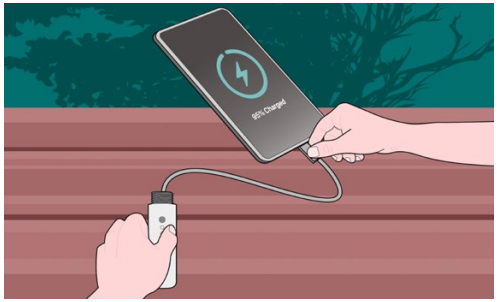
1 When drinking hot or cold beverages, use this PLANET mug.



2 Place the mug with beverages anywhere. The mug starts to generate electricity.



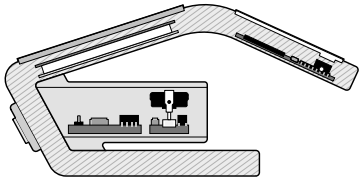
3 After drinking the beverages, turn the handle to get a charged power bank.



4 Use the regenerative electricity in the power bank on any electric device.

From Plastic Bottle to Products

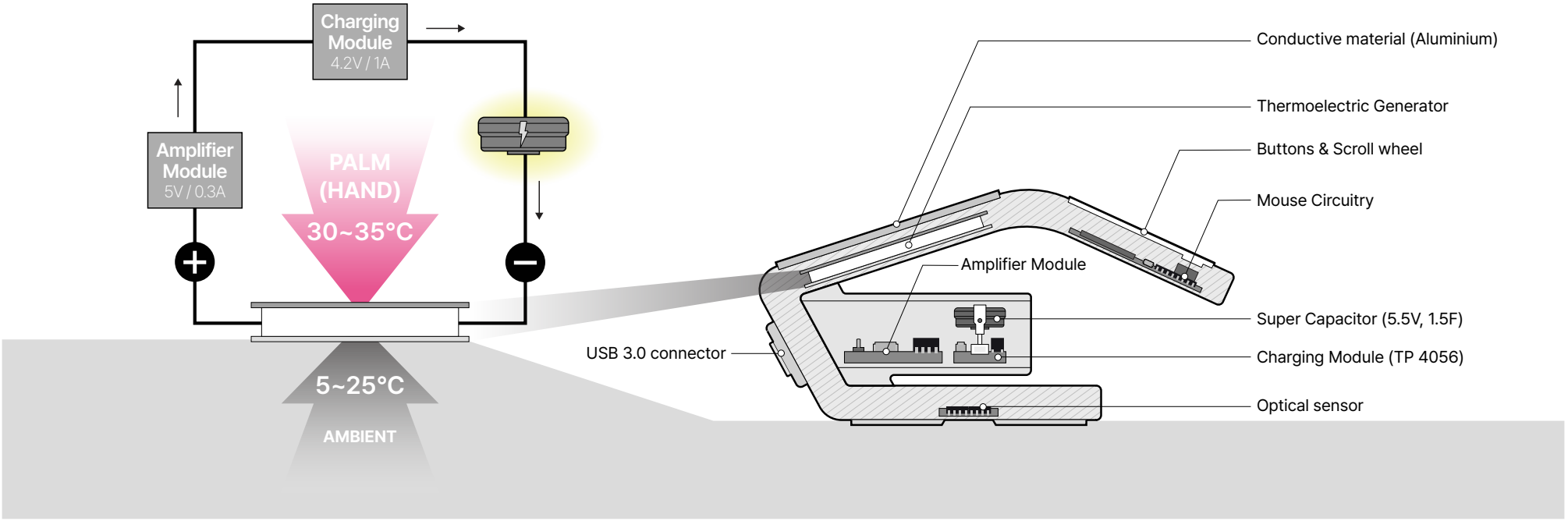
2 PLANET
MOUSE



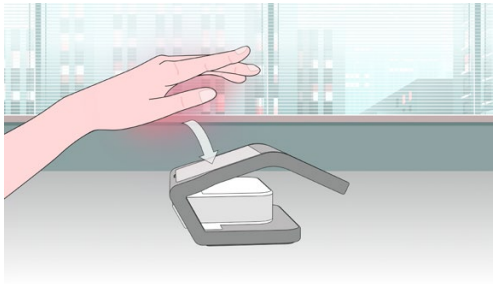
Electricity is generated from the temperature difference between the hand's warmth (30~35°C) and the external air, and the produced electricity is quickly stored in a supercapacitor to power the mouse.

Video Link : vimeo.com/839027191

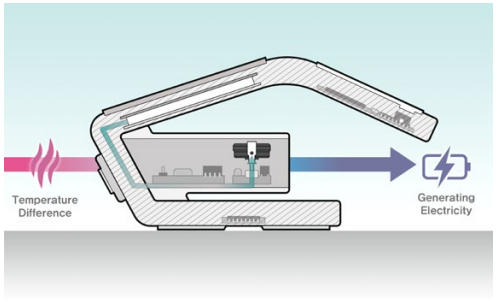
Mouse Manual



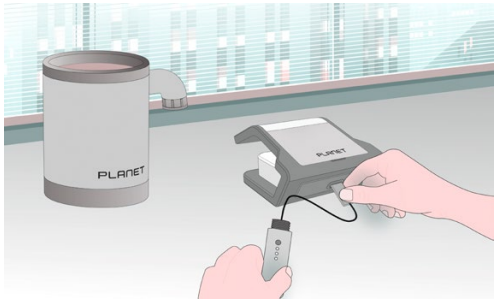
1 Before using the PLANET mouse, make sure that your hands are warm enough.



2 While using the mouse as usual, the hand's heat transfers to the aluminum conductor.



3 Electricity is generated by the hand-surroundings temperature difference.



4 If your hands are cold, use the PLANET mug's power bank after a cup of tea.

Handmade

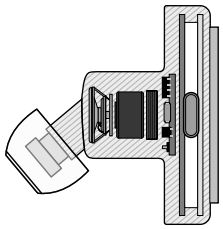
Reverse Engineering

Commercial mouse products were disassembled and analyzed to connect and operate circuits with the PLANET system. Additionally, for rapid charging, a supercapacitor (5.5V, 1.5F) made of eco-friendly materials was used instead of lithium-ion batteries.

Handmade Products

The conductive parts of the mouse were cut using CNC machines from copper and aluminum materials, and the entire body of the mouse was 3D printed from recycled plastic. All prototyping work for Planet (circuit design, soldering, surface treatment, painting, assembly) was carried out by hand.

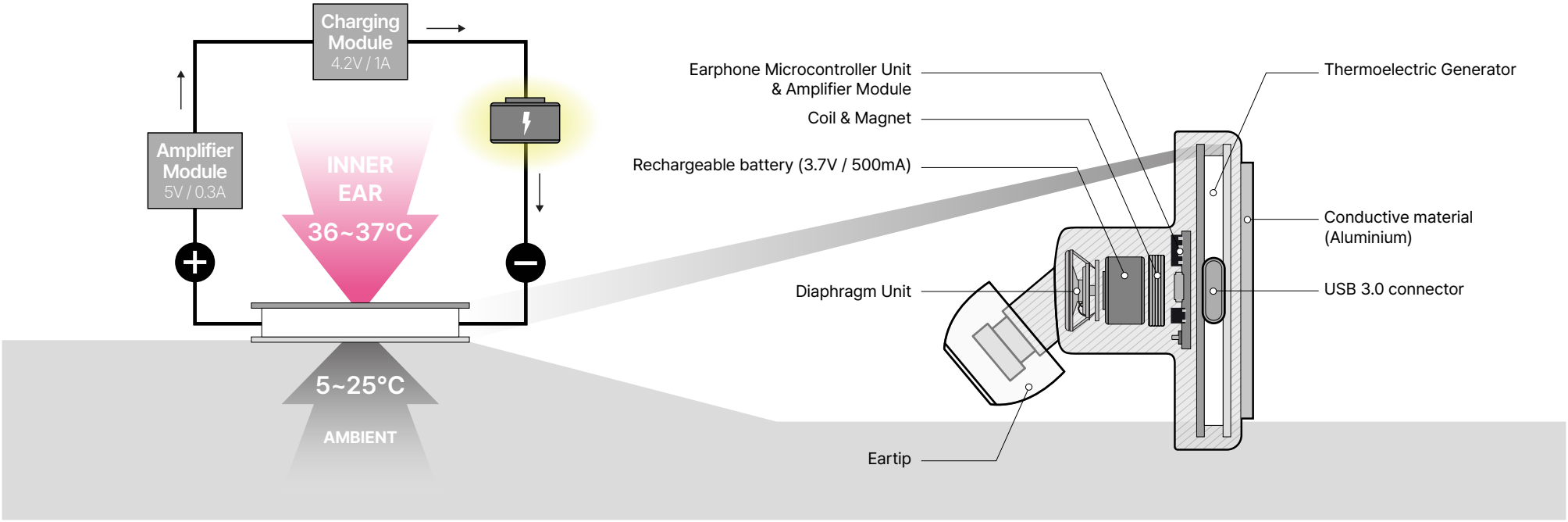
3 PLANET
EARPHONES

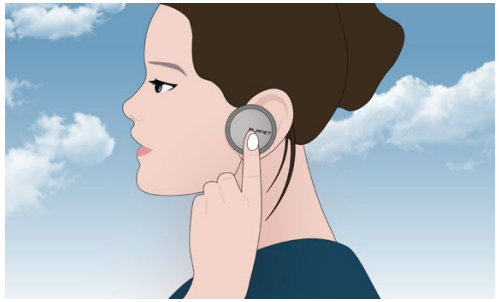


Electricity is generated from the temperature difference between the inner ear's temperature (36~37°C) and the external air, and the produced electricity is used to power the earphones.

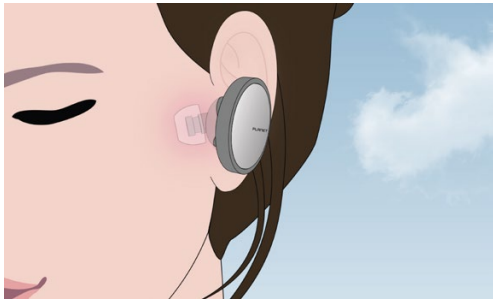
Video Link : vimeo.com/839027362

Earphones Manual

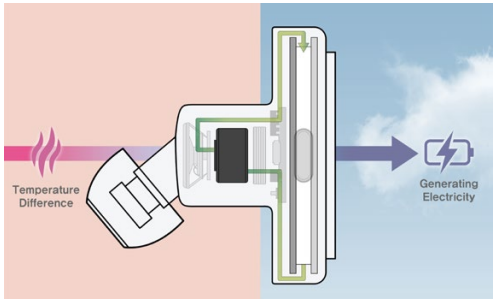




1 Use the PLANET earphones regardless of whether the battery is charged.



2 The body temperature inside the ear is transmitted to the conductor.



3 The temperature difference between the ear and surroundings generates electricity.

4 The more you exercise, the more the batteries of the earphones are charged.

Self-Power

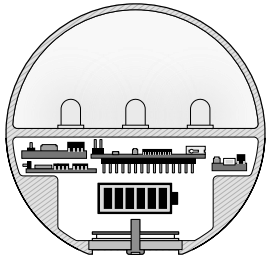
Constant Heat, 36.5°C

The average temperature of the human inner ear is maintained at about 36~37 °C. Therefore, the temperature difference between the inner ear and the external environment serves as a constant source of thermal energy. This energy is efficiently converted into electricity by PLANET system's thermoelectric generator (TEG).

Automatic Charging

The inside of the earphone, made of a conductor like aluminum, transmits the inner ear's temperature to the thermoelectric module. Conversely, the outside of the earphone uses a conductor to transfer the external temperature to the thermoelectric generator (TEG). Using PLANET earphones while exercising can inadvertently generate thermal energy, which is sufficient to charge a small battery (3.7V / 500mA).

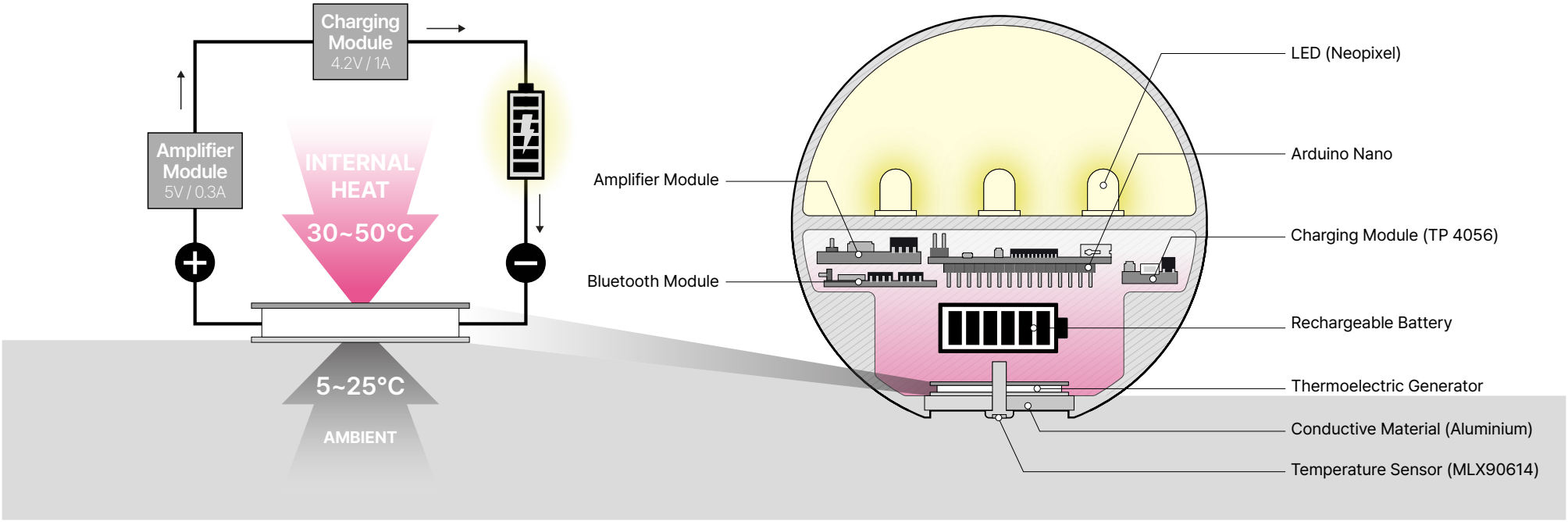
4 PLANET
THERMOMETER

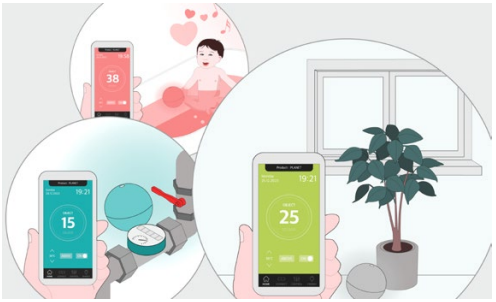


When using electronic devices, the heat generated by electronic components causes the temperature inside the device to rise, resulting in a temperature difference from the surroundings. This temperature difference is utilized to generate electricity.

Video Link : vimeo.com/839027488

Thermometer Manual

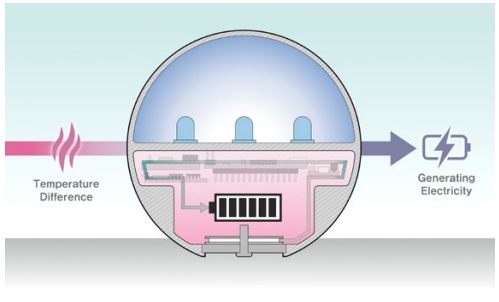




1 Place the PLANET thermometer wherever you need to know the temperature.

2 Set your desired temperature and detect temperature using the app.

3 The thermometer alleviates your effort in getting the desired temperature.



4 Also, the thermometer charges from the temperature difference with the surroundings.

IoT Design

Arduino Programming

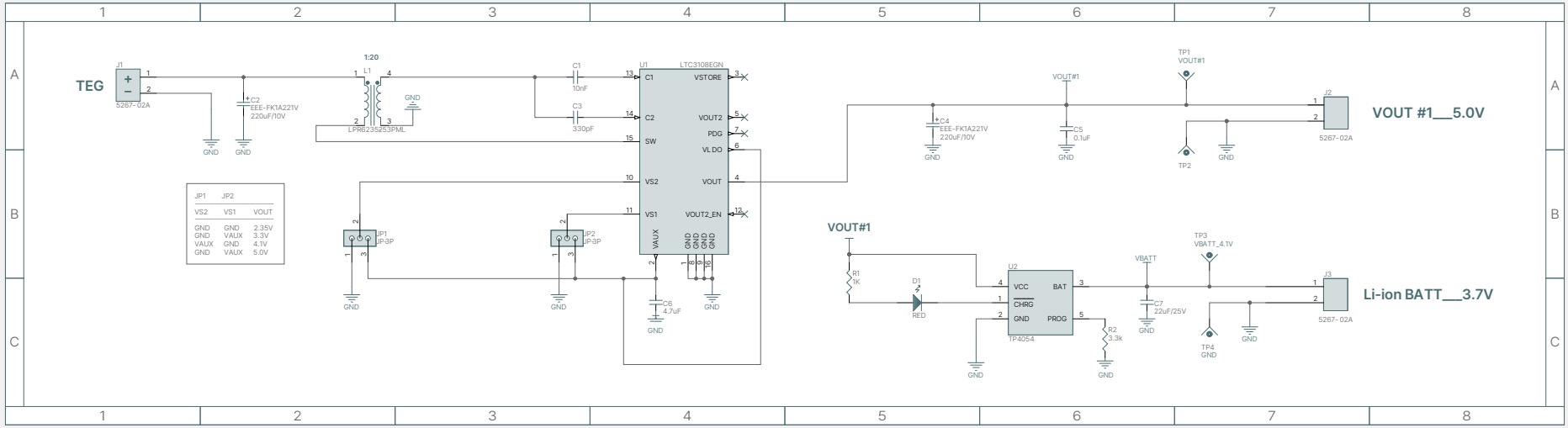
A thermometer was developed using an Arduino nano board, Bluetooth module, temperature sensor, and NeoPixel ring, which changes the LED's color according to temperature variations.
This program enables users to intuitively understand temperature through color gradients without having to read temperature values(°C).

Android Programming

An Android application was developed to measure temperature sensor values in real time via Bluetooth communication between Arduino board and smartphones.
This application conveys temperature information through colors alongside the temperature values(°C), creating a fully functional real time interactive application (*.apk).
Additionally, an alarm function was added to improve user convenience by sending notifications when the preset threshold temperature is reached.

Amplifier Circuit

Amplifier module PCB design



The amplifier module has been designed to be embedded into the PLANET products and tested to generate sufficient electricity (5V / 0.3A).

Collaborative Research

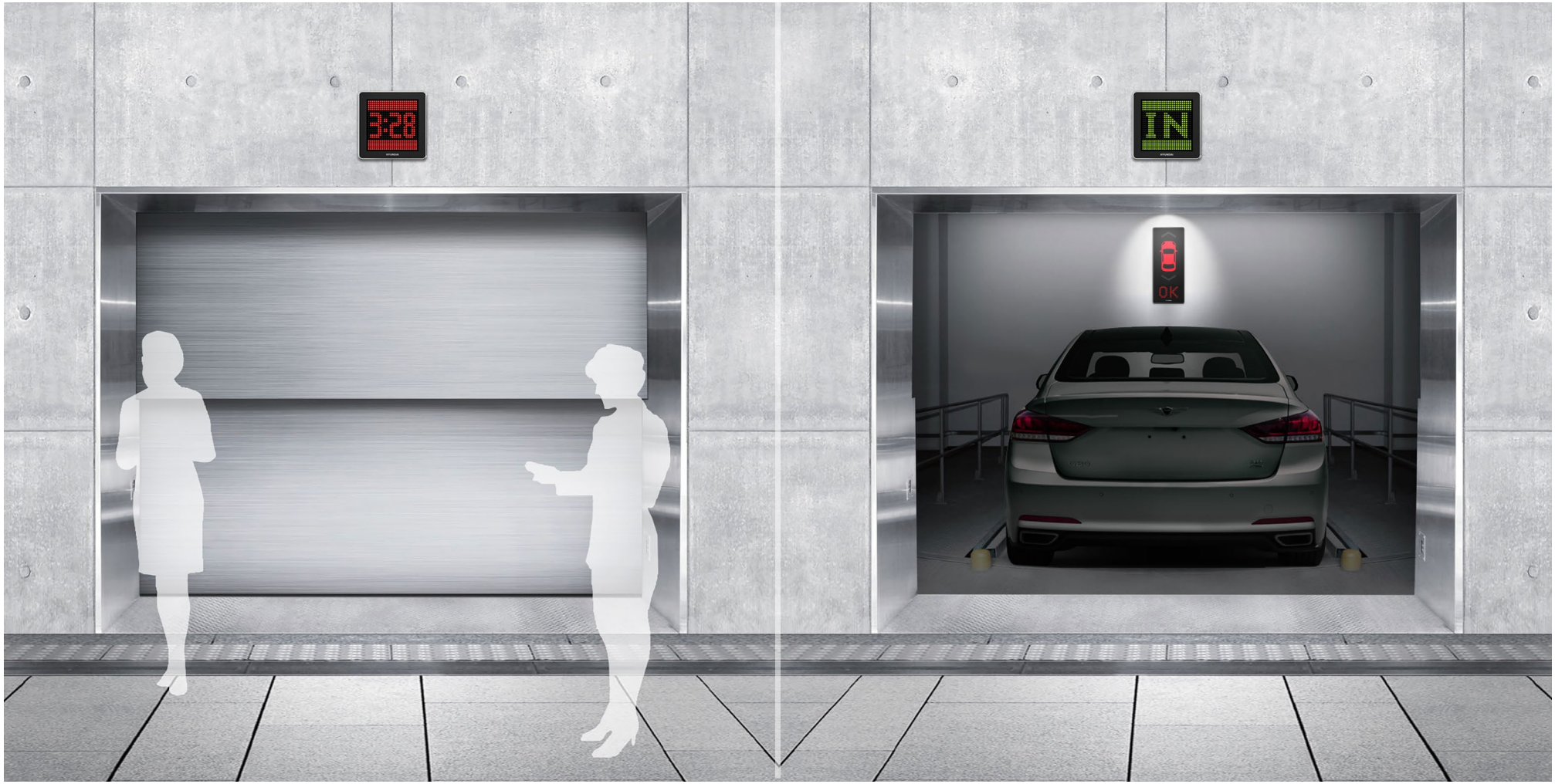
The thermoelectric generator, which converts heat into electricity, utilizes the most advanced technology.
I received samples of the research results by Professor Byung Jin Cho from KAIST and TEGWAY in South Korea.
This technology was embedded in PLANET's 4 products.

06

Parking Indicator

LED Parking assistance using intuitive color and graphics
to easily convey operational information.

DESIGN AWARD 2017



Easy Signage

Intuitive Color & Graphics

In/Out Lights (Analogue Type) offer a time-based emotional design, informing users of the car's departure time and ensuring a relaxing wait.

In/Out Lights (Digital Type) alleviate users' anxiety by providing a digital format time display, enabling users to anticipate when the car will be available.

Direction Indicating Lights not only utilize basic direction indicators with text and red/green colored lights but also incorporate a pictogram to help users more intuitively perceive the sign.

Awarded Design

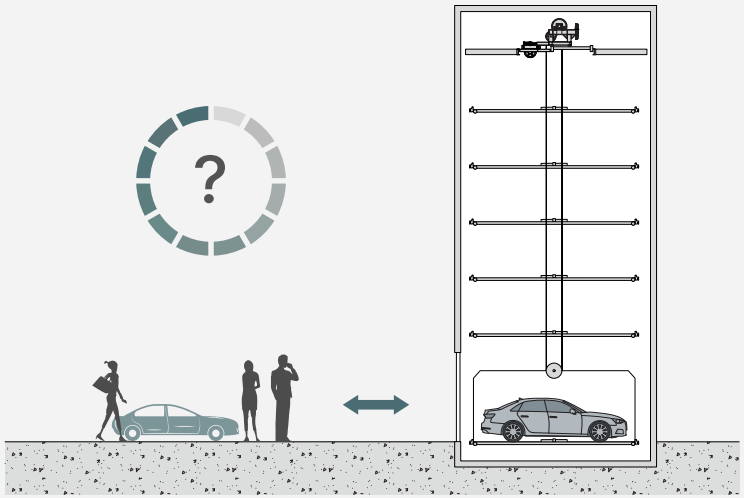
The Parking Indicator has demonstrated its global design competitiveness by earning the iF Product Design Awards 2017 (WINNER).

Project Type : Team
Role : Assigned Solo Task
Contribution : 100%
Duration : Mar 2016 to Nov 2016

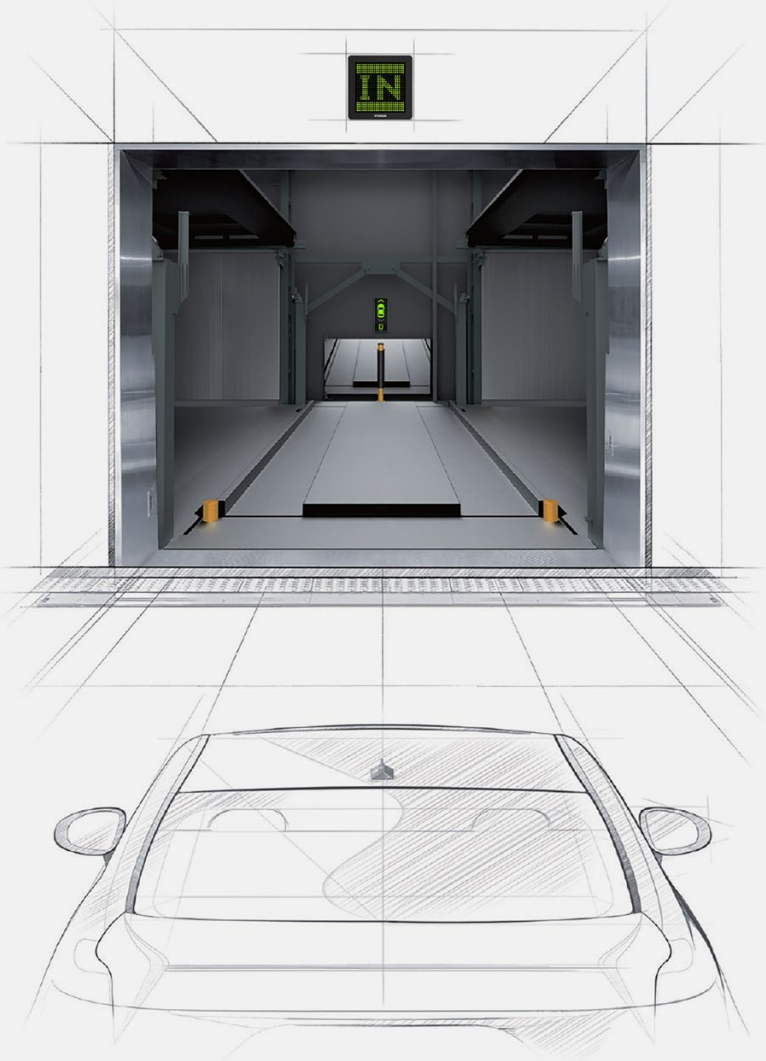
Background

Uncertainty Anxiety

The uncertainty of vehicle retrieval times, complexity of the parking process, and low confidence in the parking tower can cause anxiety for customers waiting for their vehicles.



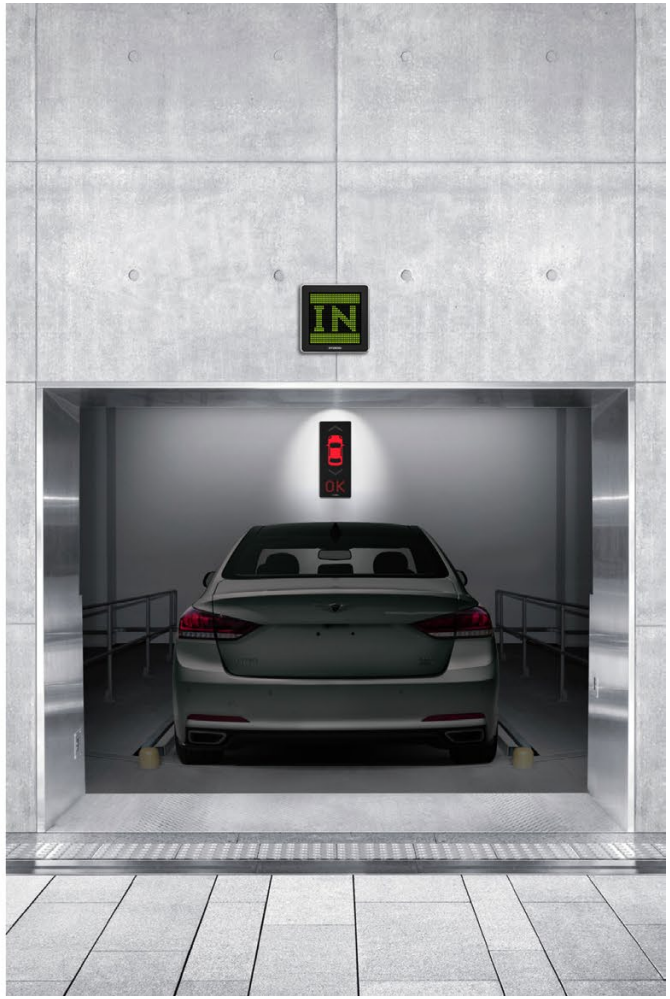
To reduce anxiety, providing signs that indicate the estimated time of vehicle retrieval, along with intuitive colors and graphics, can improve customer experience.



Vehicle Entry and Exit Process

Vehicle Exit in 3m 28s

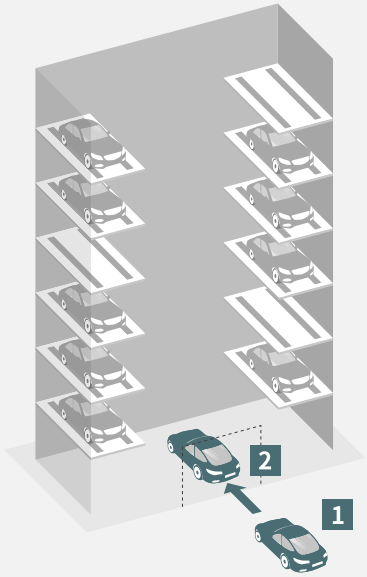
Vehicle Exit in progress

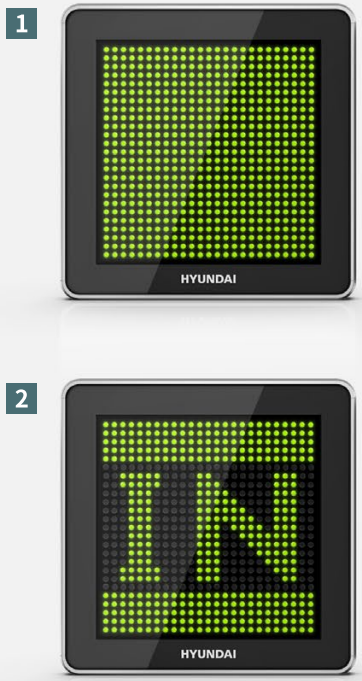


Vehicle Entry Available

Vehicle Entry

In Lights (Digital Type)

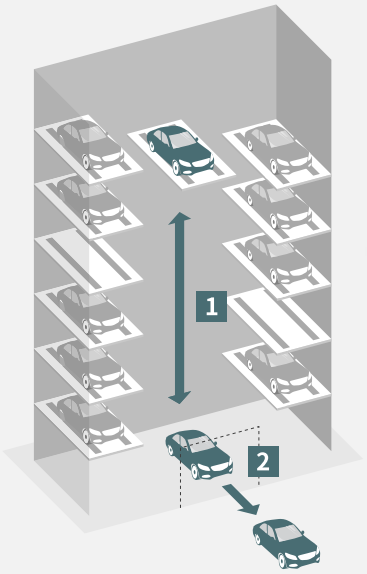


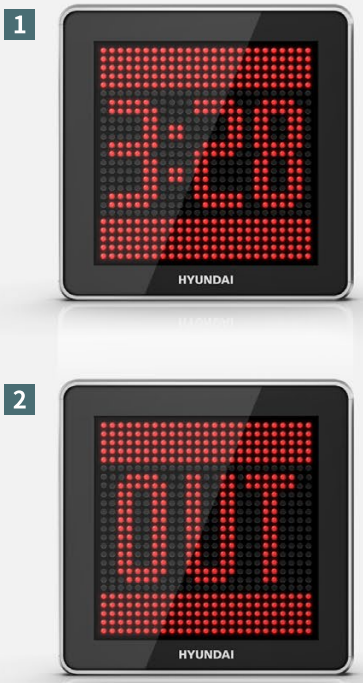


The green color signifies 'go', 'safe', or 'proceed'. The green signal indicates that vehicle entry is allowed, and users can confidently proceed with vehicle entry through the digital-format letter display (IN).

Vehicle Exit

Out Lights (Digital Type)





The red color symbolizes 'stop', 'danger', or 'do not proceed'. The red signal means that vehicles must halt. Users can estimate the exit time through the digital-format time display (3 minutes and 28 seconds).

Vehicle Parking

Direction Indicating Lights

For safe entry and exit within the parking space, clear guidance is provided through pictograms indicating car direction. Digital-format letters signify D (Drive), R (Reverse), and OK (Complete).

07

FLIPOUR

Easily flippable hand tool to lift heavy PET bottles
and to pour the contents out of them without spilling

universal design consumer favorite 2014

UNIVERSAL DESIGN

Pour Aid Tool

Lightly and Precisely

Water is typically sold in 500 ml bottles or larger 1.5 to 2.0 L PET bottles. However, the larger bottles can be too heavy for individuals with limited lifting abilities. Attempting to use both hands often results in spills.

This is particularly challenging for individuals with an amputated hand or arm, making it difficult to pour water with just one hand. They struggle to lift and tilt the bottle simultaneously.

FLIPOUR, a newly designed device, addresses these challenges by facilitating the lifting and pouring of heavy PET bottles without any spillage.

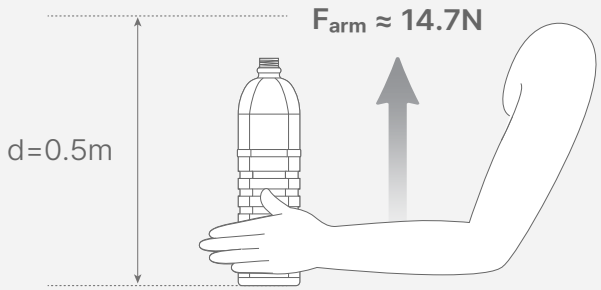
Awarded Design

The FLIPOUR has demonstrated its global design competitiveness by earning the iF Universal Design 2014 (Consumer Favorite).

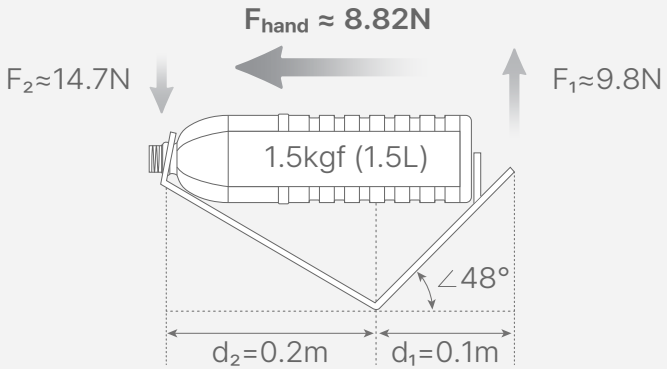
Project Type : Team
Role : PM, Research, Design, Rendering
Contribution : 80%
Duration : Nov 2014 to Dec 2014

Lever Principle

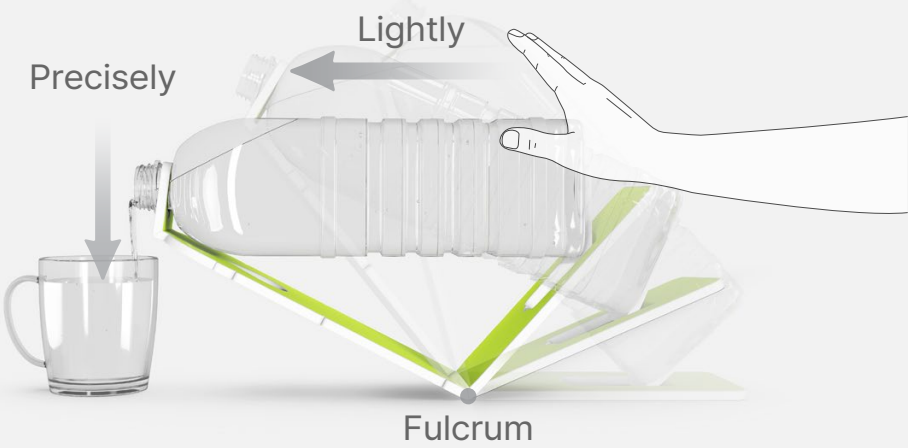
Current Work ≈ 7.35J



Lever-Assisted Work ≈ 1.05J



Application

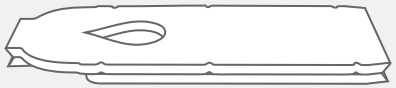


FLIPOUR applies the principle of the lever, allowing for the conservation of effort and the ability to control distance.

Video Link : vimeo.com/839027488

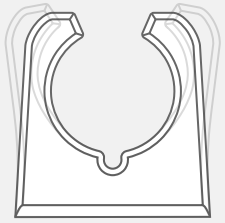
Flipable, Universal, Easy

FLIPABLE STRUCTURE



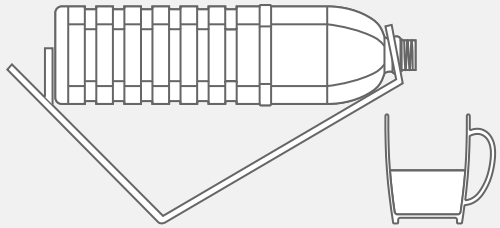
FLIPOUR is Flipable for shipping and space-saving. Different colors of the inner and outer faces give a hint of flipping function and a bright feeling.

UNIVERSAL SIZE



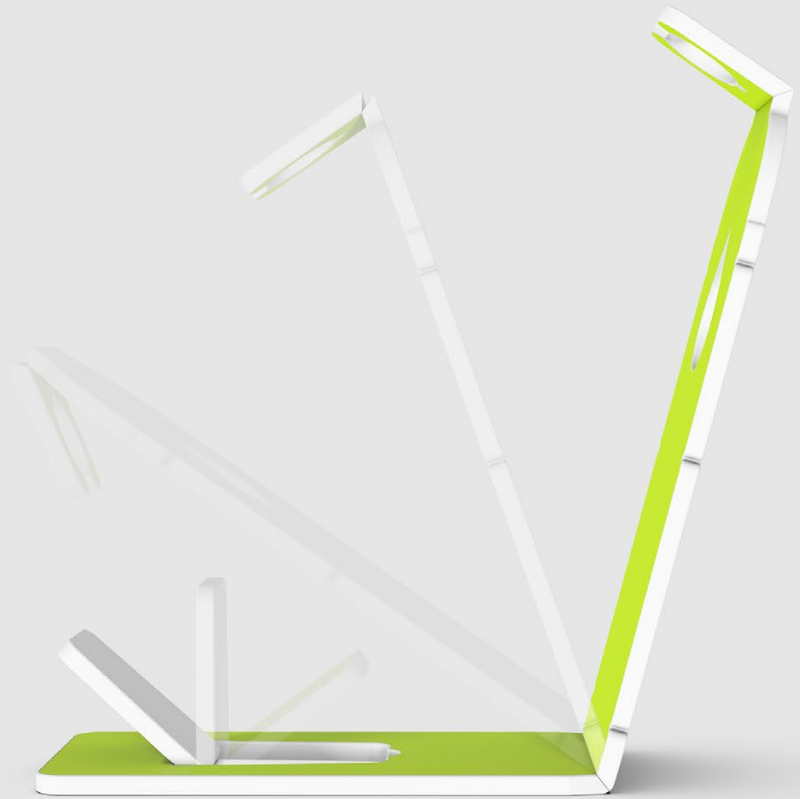
Using the elasticity of ABS plastics, it can be fitted with the neck size of any PET bottle.

EASY POUR

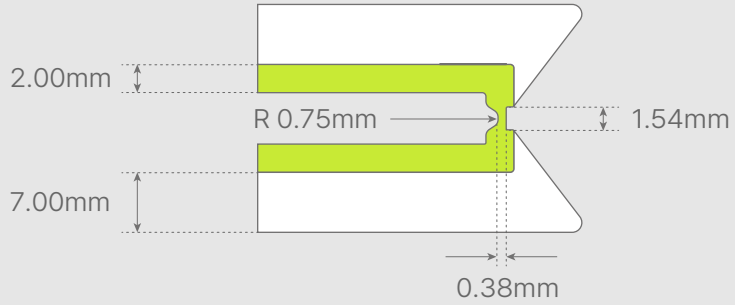


Only a tiny amount of power is needed to pour water into the cup. It is designed for people with weak hand strength.

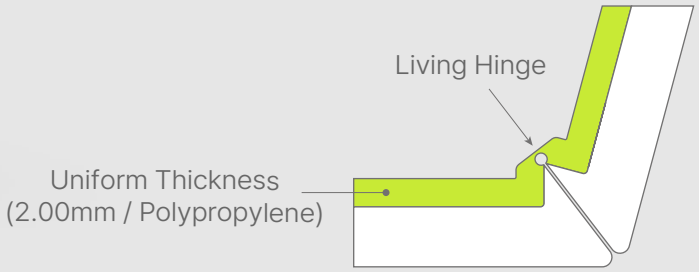
Living Hinge



Closed Hinge



Open Hinge

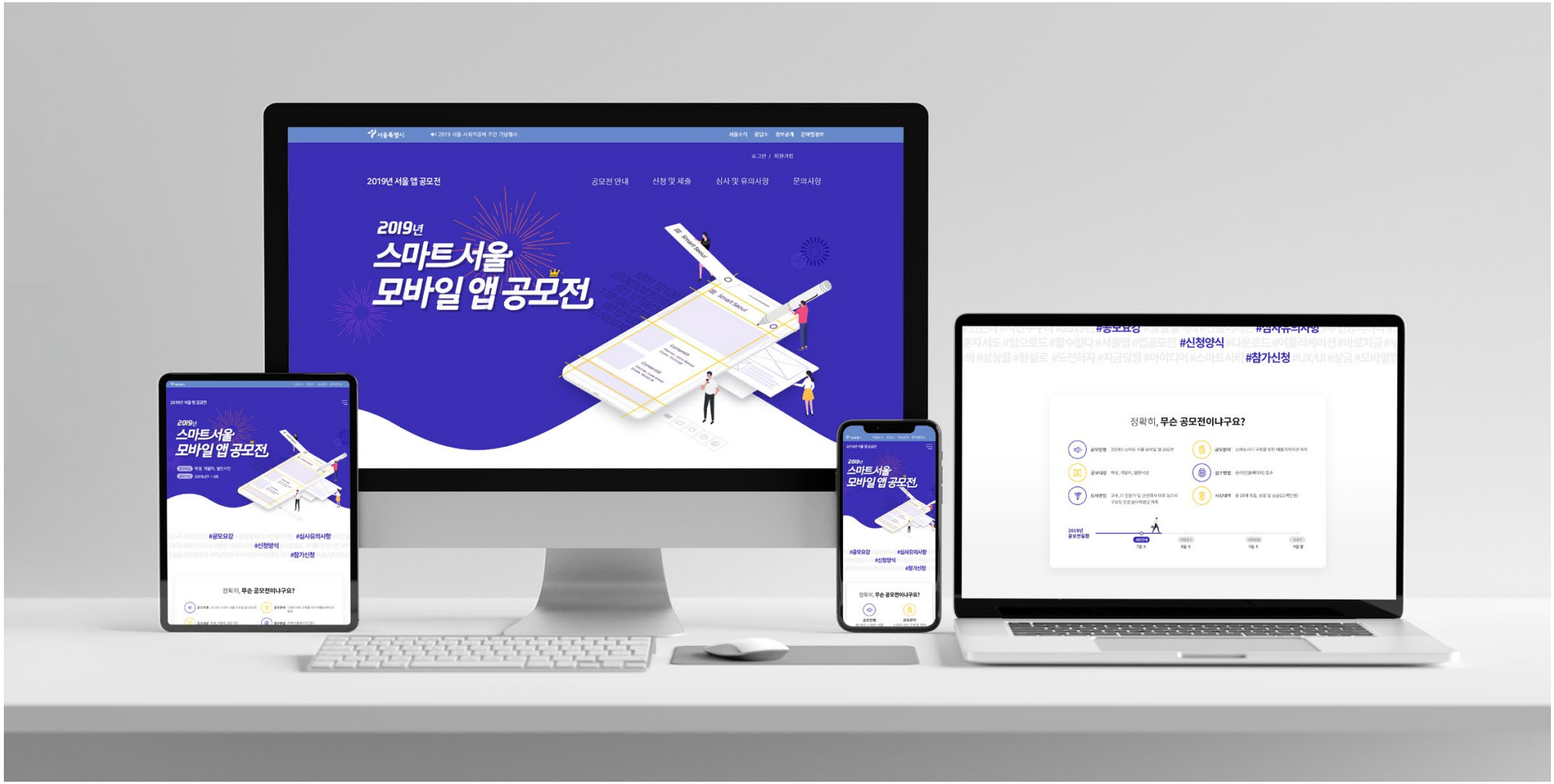


08

Contest Website

Website to promote citizen-led public app development
and to support talented developers

WEB AWARD
19 WINNER



App Space

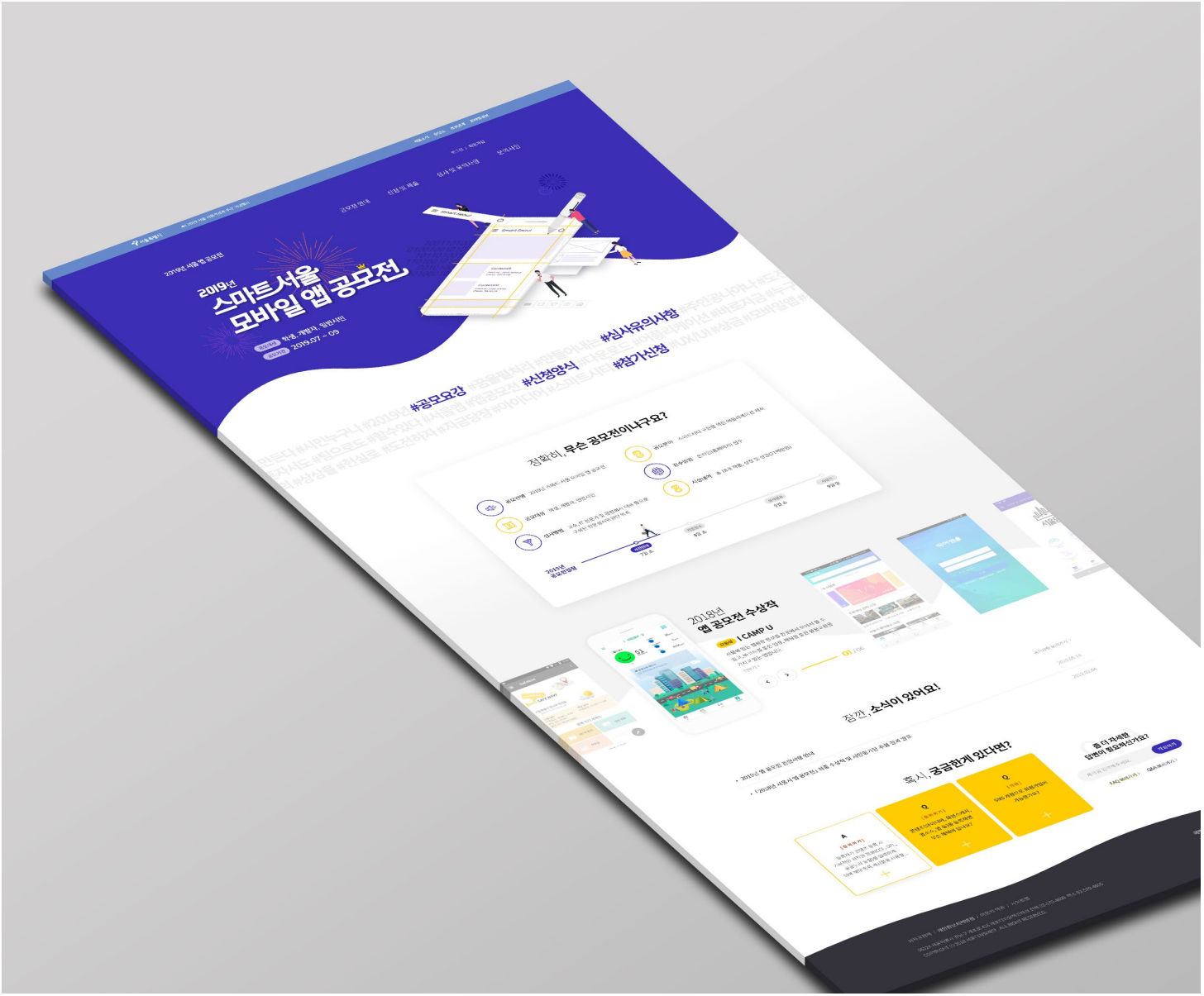
Citizen-Centric Platform

This website is designed to foster a culture where citizens take the lead in creating public interest mobile apps and support talented developers.

It archives mobile app services that citizens created, making them widely available to enhance the convenience of citizens' lives.
This service allows anyone to download these citizen-created works.

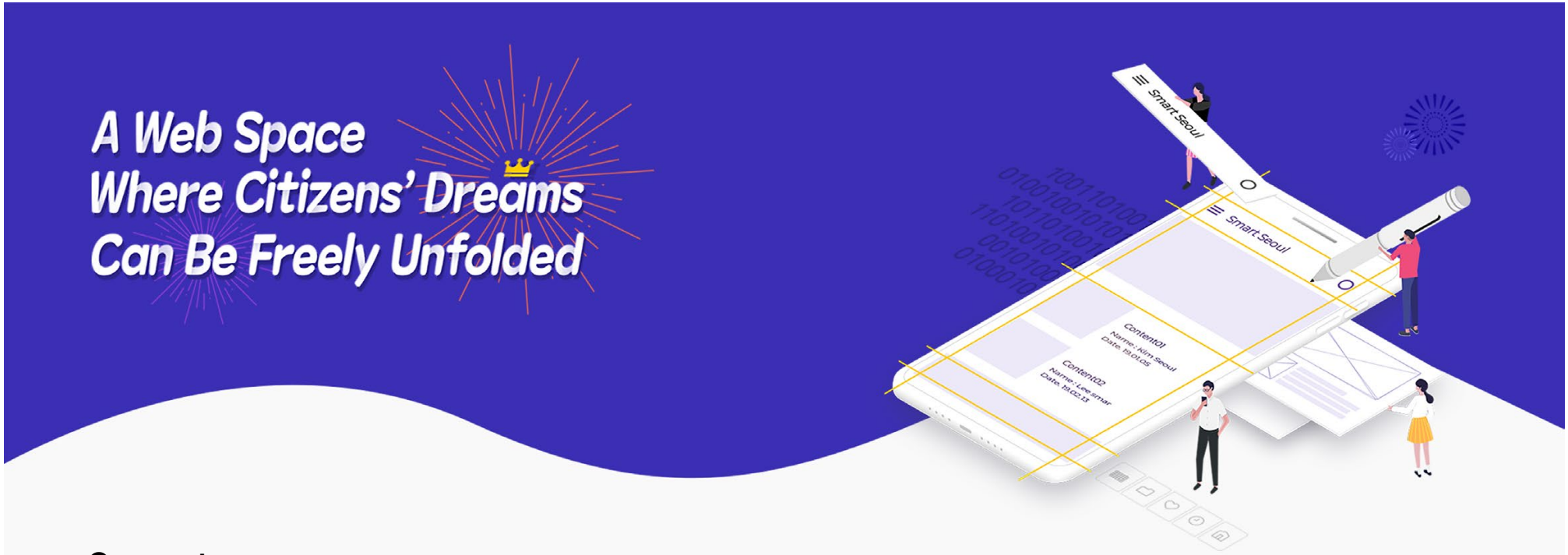
Awarded Design

The contest website has demonstrated its national design competitiveness by earning the 16th Web Awards Korea (WINNER).



Project Type : Team
Role : PM, Content Creator, UI/UX, Web design, Illustraror, Business Operations
Contribution : 50%
Client : SEOUL METROPOLITAN GOVERNMENT
Duration : Jun 2019 to Dec 2019

Concept



Concept

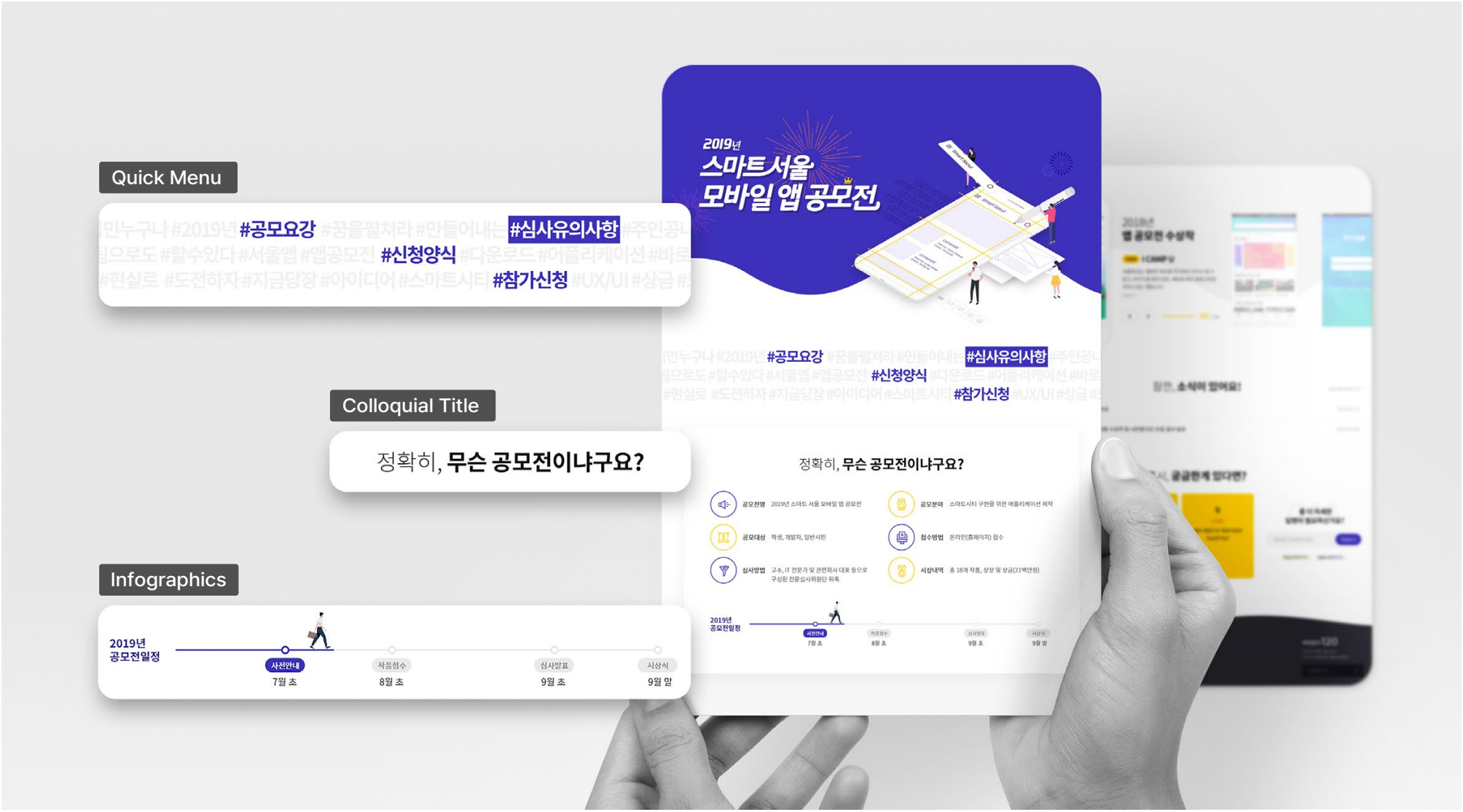
The concept was created to offer a space where everyone can freely unfold their creative dreams and enjoy without any burden. Bold typography and the process of app creation were illustrated, using curves to divide sections and emphasize a sense of freedom, encouraging citizens to participate in contests. The use of purple to stimulate creativity, along with vibrant yellow symbolizing energy as a secondary color, was employed to create a clear and joyful atmosphere.

Noto Sans KR
Noto Sans KR
Noto Sans KR
Noto Sans KR
Noto Sans KR

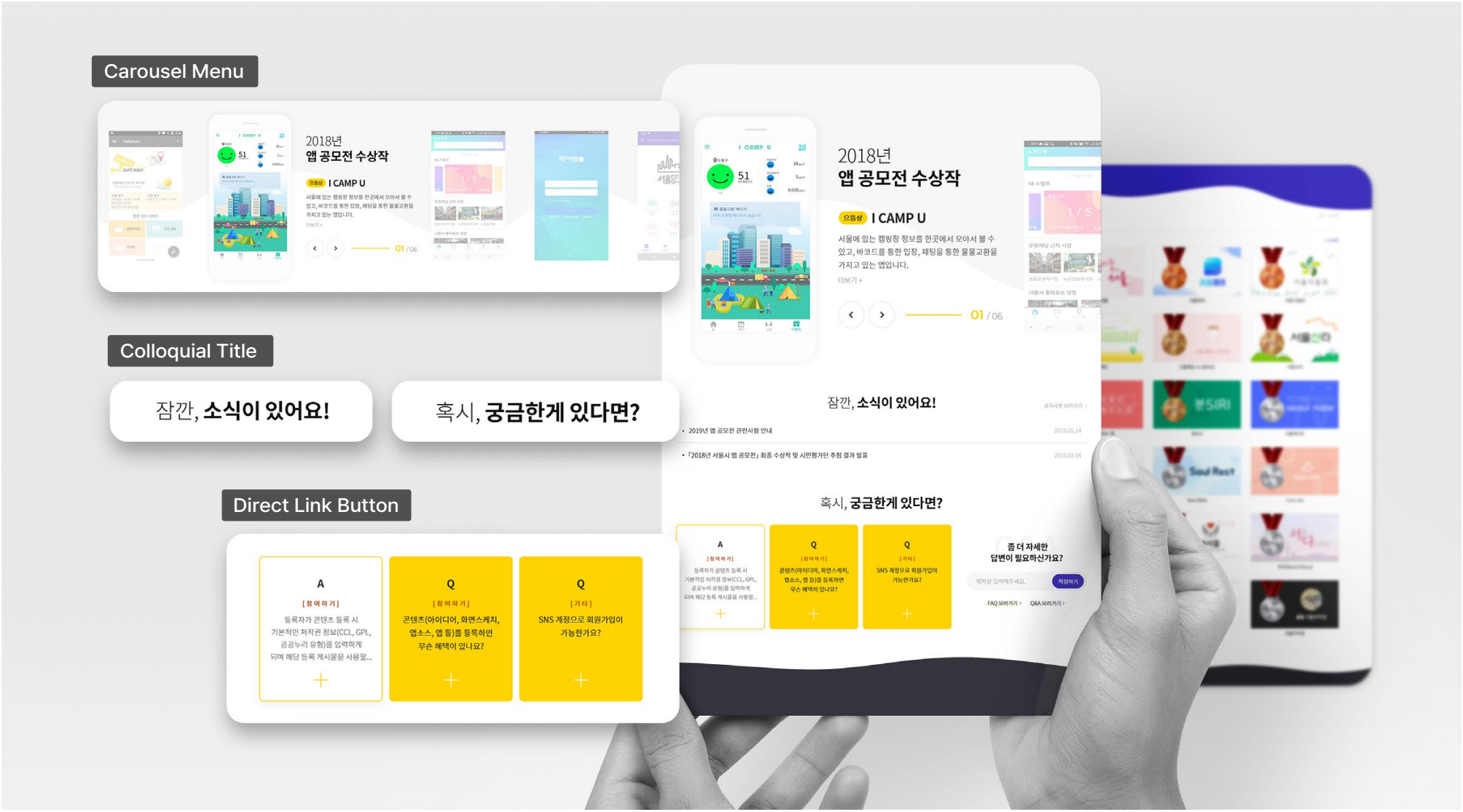
가나다
Aabc

MAIN	POINT 1	POINT 2
#3b2fb4	#ffccoo	#da4835
SUB 1	SUB 2	GRAY
#ffffff	#34323a	#f5f5f5

UI/UX Main (1)


Quick Menu
#공모요강
#심사유의사항
#신청양식
#참가신청
Colloquial Title
정확히, 무슨 공모전이냐구요?
Infographics
2019년
공모전일정
사전안내
7월 초
작품접수
8월 초
심사발표
9월 초
시상식
9월 말
2019년
스마트서울
모바일 앱 공모전

UI/UX Main (2)


Carousel Menu
2018년
앱 공모전 수상작
으뜸상 I CAMP U
서울에 있는 캠핑장 정보를 한곳에서 모아서 볼 수 있고, 바코드를 통한 입장, 체팅을 통한 물물교환을 가지고 있는 앱입니다.
더보기 +
01 / 06
Colloquial Title
잠깐, 소식이 있어요!
혹시, 궁금한게 있다면?
Direct Link Button
A
[참 여 하 기]
등록자가 콘텐츠 등록 시 기본적인 저작권 정보(CCL, GPL, 공공누리 유형)를 입력하게 되며 해당 등록 게시물을 사용할...
Q
[참 여 하 기]
콘텐츠(아이디어, 화면스케치, 앱소스, 앱 등)를 등록하면 무슨 혜택이 있나요?
Q
[기 타]
SNS 계정으로 회원가입이 가능한가요?
• 2019년 앱 공모전 관련사항 안내
• 「2018년 서울시 앱 공모전」 최종 수상작 및 시민평가단 추첨 결과 발표
좀 더 자세한 답변이 필요하신가요?

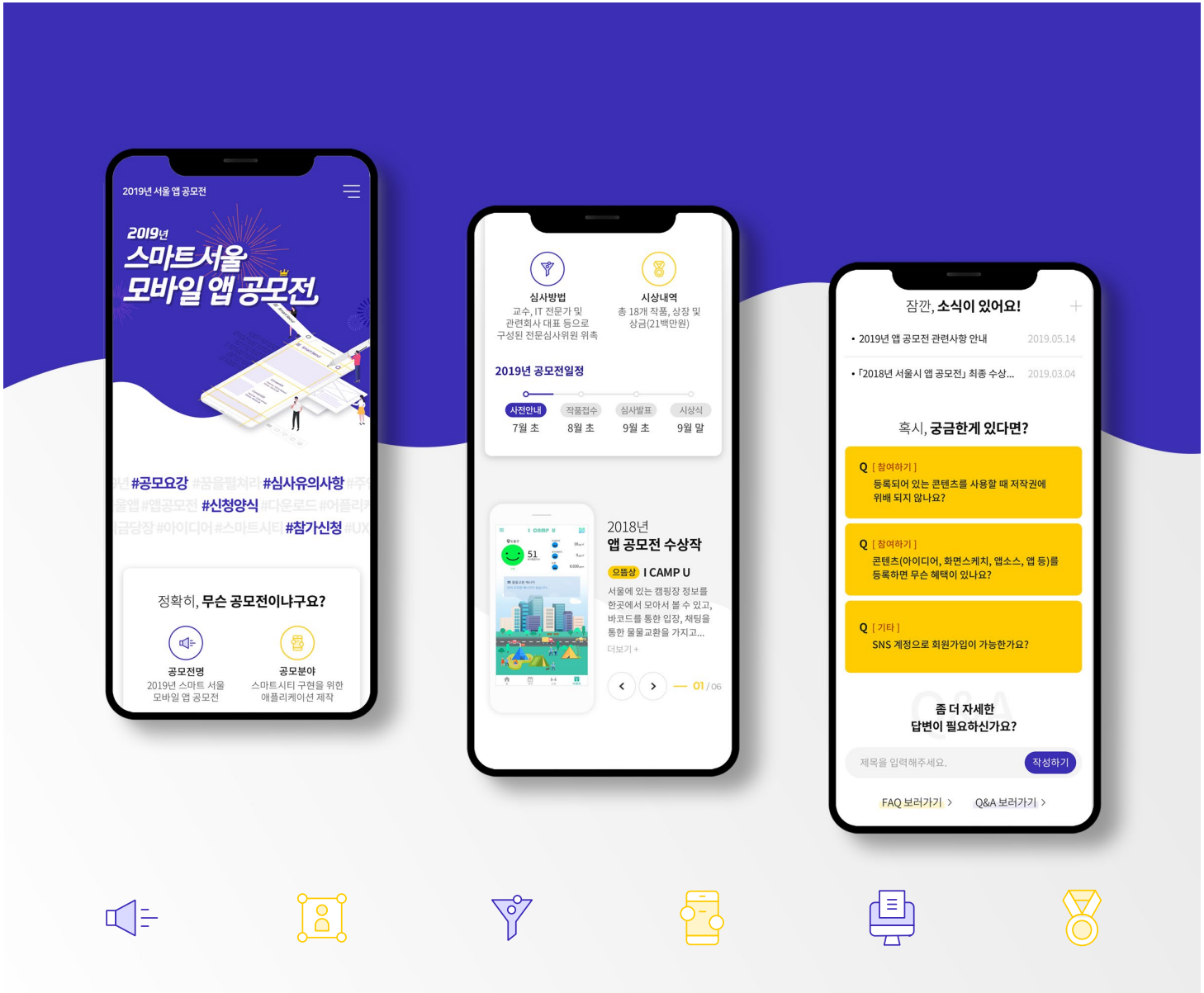
Mobile Detail

Responsive Website

The design has been optimized for screens and devices of various sizes, automatically adjusting content and layout.

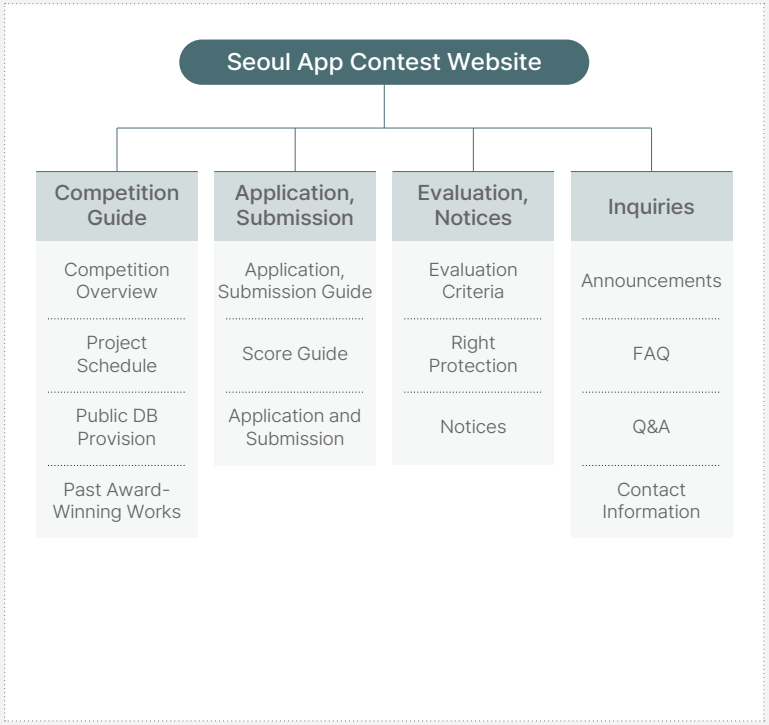
Mobile screens have been specifically optimized by adjusting margins and fonts, and content has been realigned vertically to ensure all information is accessible through vertical scrolling only.

This responsive website design ensures that users enjoy the optimal user experience, whether accessing the site via PC, tablet, or mobile.

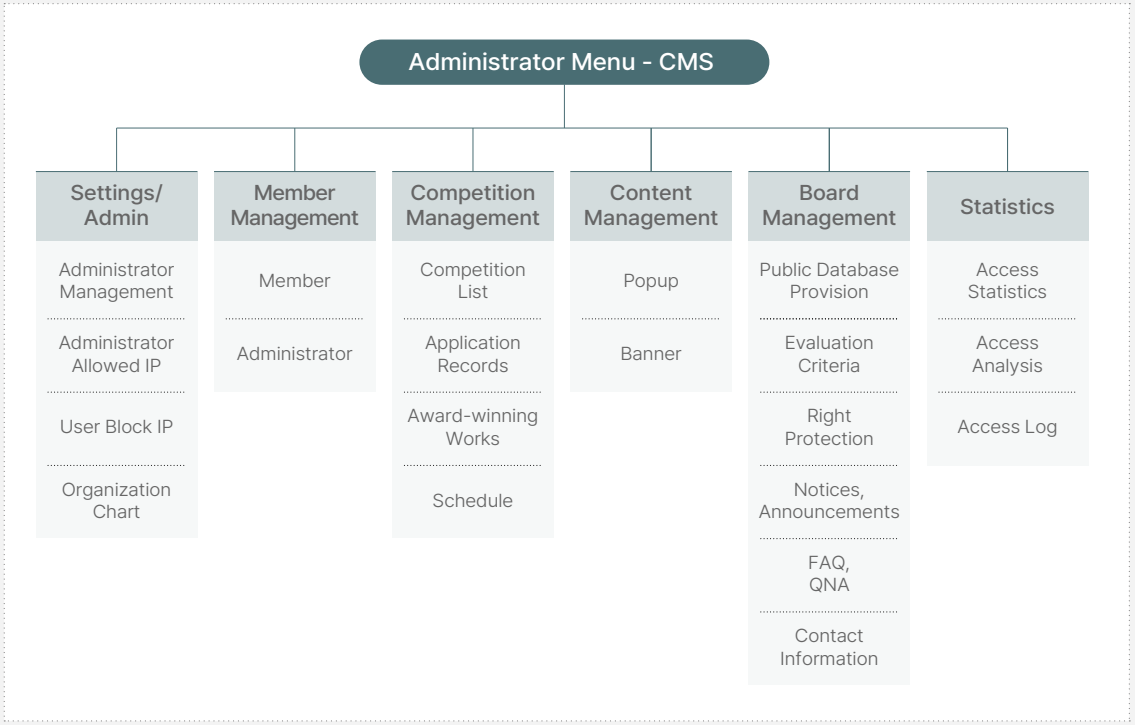


Site Map

User Site Map



Admin Site Map



As the overall manager of the website creation and app contest project, I have also established an integrated Content Management System (CMS) to enhance the website's manageability and provide stable services to the citizens. This system facilitated an app contest from August to September 2019, attracting 521 participants and resulting in 219 app submissions. Of these, 20 outstanding apps were selected, archived, and are available as services for Seoul's citizens.

Discover More

Thank you very much for exploring my portfolio! I hope you found my works both insightful and inspiring for a better life.
If you're interested in seeing more of my projects or wish to connect, please visit my website, and feel free to contact me.

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Youngmin Song