CES 2025
Connect, Solve, Discover: Dive In

2024. 12. 24

Gu-Min Jeong
Kookmin University, Korea

➤ **Youtube channel : 9민선생**

  ▪ **https://www.youtube.com/watch?v=XJhIgpX47TA**

  ▪ **CES 2025 preview (Professor Gu-min Jeong on December 24, 2024)**

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Gu-Min Jeong
Kookmin University, Korea

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CES 2025 Introduction

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
									Human Security	**Human Security**	Human Security
					5G	5G	5G	5G	5G	5G	5G
				Smart City	Smart City	Smart City	Smart City	Smart City	Smart City	Smart City	Smart City
				Robot	Robot	Robot	Robot	Robot	Robot	Robot	Robot
			AI	AI	AI	AI	AI	AI	AI	**Generative AI**	AI
			Drone	Drone	Drone	Drone	Drone	Drone	Drone	Drone	Drone
Wearable Devices	Drone	Drone	Wearable Devices	Wearable Devices	Wearable Devices	Wearable Devices	Wearable Devices	**Digital Health**	Digital Health	Digital Health	**Digital Health**
Virtual Reality	Wearable Devices	Wearable Devices	AR/VR	AR/VR	AR/VR/MR	XR	XR	**Metaverse**	Metaverse	Metaverse	Metaverse
Autonomous vehicle	Virtual Reality	AR/VR	Autonomous Driving	Autonomous Driving	Autonomous Driving	Future Mobility	Future Mobility	Future Mobility	Mobility	Mobility	**Mobility**
4K TV	Smart Car	Smart Car	4K TV	4K TV	8K TV	8K TV	8K TV	Display	Display	Display	Display
Smart Home	4K TV	4K TV	Smart Home	Smart Home	Smart Home	Smart Home	Smart Home	Smart Home	Smart Home	Smart Home	Smart Home
3D Printing	Smart Home	Smart Home			**Resilient Tech**	Resilient Tech	**ESG**	**Sustainability**	Sustainability	Sustainability	**Sustainability**
	3D Printing	3D Printing				Food Tech	Food Tech	Food Tech	Food Tech	Food Tech	Food Tech
								NFT	**Web 3.0**		
								Space Tech			

CTA-driven Change Focusing on the Service Ecosystem

AI Emergence Autonomous Driving Focus

5G Emergence

COVID-19 Spread Focus on Online/Contactless Tech

Hybrid Online/Offline COVID-19 and Tech Advancement

2017 → Shipping Company Carnival Co. Keynote Little Impact

2018 → CeBIT Canceled Reference: COMDEX Discontinued in 2003

2020 → Airline Delta Keynote Rapid Change in DT

2021 → Online Event

2022 → Hybrid Format Metaverse/NFT Healthcare Integration (Abbott) Space Technology

CES 2025 Introduction

➢ **CES 2025 Motto**

▪ **Connect, Solve, Discover: Dive In**

- CES 2025
  - ✓ Connect
  - ✓ Solve
  - ✓ Discover

https://www.ces.tech/videos/2024/september/connect-solve-discover-dive-in/

Photo Courtesy: CES 2025

CES 2025 Introduction

➢ **CES 2025 Exhibition**

- **CES(Consumer Electronics Show)**
  - The world's largest new technology exhibition
  - Organized by CTA (Consumer Technology Association)

- **Event Dates**
  - U.S Time
    - ✓ Media Day : January 5 (Sunday) ~ January 6 (Monday)
    - ✓ Main Exhibition : January 7 (Tuesday) ~ January 10 (Friday)
  - ✓ Korean Time
    - ✓ Media Day : January 6 (Monday) ~ January 7 (Tuesday)
    - ✓ Main Exhibition : January 8 (Wednesday) - January 11 (Saturday)

- **Location**
  - Las Vegas, USA

Who Will Be There?

279	157	61%
companies on the Fortune 500	countries, territories and regions	of registrants are senior-level
79	39	52%
companies on the Interbrand 100	companies on the Twice Top 50 Consumer Electronics Retailers	of registrants have significant influence in buying decisions

**<CES 2025 Participation Scale>
As of November 27, 2024**

CES 2025 Introduction

➢ **CES 2025 Exhibition (CES 2025 Website, https://www.ces.tech/)**

- **Over 4,312 exhibitors expected to participate**
  - Approximately 1,442 startups participating
  - Approximately 3,400 entries for the CES 2025 Innovation Awards
- **Attendees**
  - Over 140,000 attendees expected
    - ✓ CES 2024 Approximately 130,000 attendees
    - ✓ CES 2023 Approximately 115,000 attendees
    - ✓ CES 2022: Approximately 45,000 attendees
  - Over 160 countries expected to participate
- **AI, Digital Health, Autonomous Driving & Mobility, Sustainability, Smart Home**

CES 2025 Introduction

➤ **CES 2025 Overview (CES 2025 Website, https://www.ces.tech/)**

- **Convergence of Various Industries Centered Around AI**
  - Convergence of Industries: Mobility, Infra, Agriculture, Beauty, and more
- **Keynote**
  - Nvidia, Volvo, Delta, Accenture, Panasonic, SiriusXM
- **Press Conference**
  - AMD, Bosch, John Deere, LG, Samsung, Siemens, SK Hynix, Sony, TCL, Toyota, Qualcomm, Waymo
- **Expansion in Scale**
  - Over 2.4 million square feet in size
  - 12 official exhibition venues
- **Eureka park**
  - Over 1,400 startups participating
- **Conference**
  - Over 250 conference sessions

Featured Exhibitors

BRUNSWICK · GOOD YEAR · LG · L'ORÉAL

MAGNA · Panasonic · SAMSUNG · SIEMENS

Key Participants in CES 2025

Photo Courtesy: CES 2025

CES 2025 Introduction

CES 2025 Topics

- 5G
- Accessibility
- AR/VR/XR
- **Artificial Intelligence**
- Content and Entertainment
- **Digital Health**
- Diversity and Inclusion
- Fintech
- Fitness
- Food Tech
- Gaming and Esports
- Home Entertainment

- Lifestyle
- Marketing and Advertising
- Robotics
- Smart Cities
- Smart Home
- Space Tech
- Sports
- Startups
- **Sustainability**
- Travel and Tourism
- **Vehicle Tech and Advanced Mobility**

CES 2025 Introduction

➢ **Key Topics (CES 2025 Website)**

- ▪ **Artificial Intelligence**
  - • Simplifying the World of AI
    - ✓ Simplifying the AI World
    - ✓ Boosting Productivity, What AI Can Do

- ▪ **Digital Health**
  - • Find the Pulse of What's Next
    - ✓ Reducing Healthcare Costs
    - ✓ Access to Essential Treatment and Diagnostics

- ▪ **Vehicle Tech & Advanced Mobility**
  - • Put Yourself in the Driver's Seat
    - ✓ Convenience, Efficiency, and Smart Operation of Future Mobility

CES 2025 Key Points

> **Key Points of CES 2025**
> - **Participation of U.S. Big Tech Companies**
>   - Amazon, Google, Meta, Intel, NVIDIA, Qualcomm, etc.
>
> - **Key Companies from Korea**
>   - Samsung, LG, SK Telecom, Hyundai Mobis, Mando, Woongjin ThinkBig, etc.
>
> - **Record Number of Innovation Award Nominees**
>   - Overall Nominees
>   - ✓ +13% Growth Compared to last year
>   - ✓ Total Nominees: About 3,400 nominees
>   - Award Results
>   - ✓ CES 2025 Innovation Awards (Dec 10, 2024)
>   - 362 products awarded (CES2024: 379 products)
>   - Korean Company Products
>   - 170 products (46.96%) (2024: 158 products, 41.6%)
>   - Including Repeated Awards
>   - ✓ Total Repeated Awards: 387 products.
>   - ✓ Korean Company Products
>   - 188 products (48.6%)

CES 2025 Key Points

➢ **Key Points of CES 2025**

- ▪ **The Age of Artificial Intelligence**
  - +49.5% in the number of candidates in the AI category

- ▪ **Innovation Award Categories Added**
  - Beauty & Personal Care
  - Fashion Technology
  - Industrial Equipment & Devices
  - Pet Tech

- ▪ **Key Trends**
  - Artificial Intelligence, Digital Health, Mobility

- ▪ **Additional Keywords**
  - Sustainability, Robotics, Smart Home, Human Security, Aging Technology

CES 2025 Key Trends

> **CES 2025 Participating Companies**

CES 2025 Key Trends

➢ **Keynote Companies**

CES 2025 Key Keywords

➢ **CES 2025, Key Keywords**
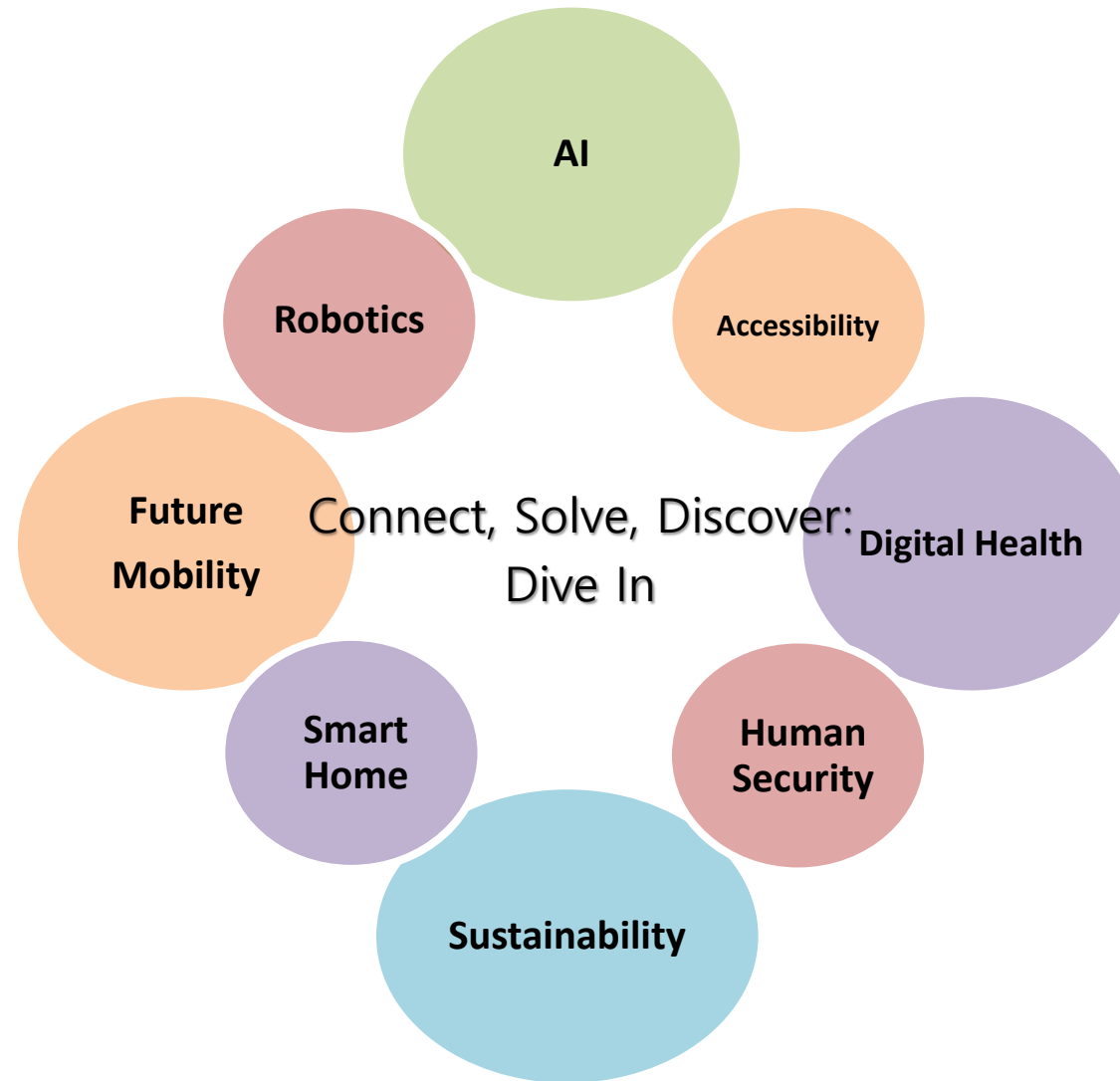
CES 2025 Keyword – Artificial Intelligence

➢ **Transformation of Industry Landscape with Generative AI**

▪ **Expansion into various industries**

Generative AI-Specific Services
Media creation using text, images, videos, etc.
→ Application in various sectors to enhance work efficiency

| ChatGPT Text generation | DALL E Image generation | AWS Generative AI tools |

Metaverse
Metaverse Expansion
→ Increase indirect experience and efficiency beyond space constraints

| Lotte Kalbise | Gusrelux Metaverse home training | Meetkai NBPA store in the metaverse |

B2C/B2B Customer

Generative AI-Driven Services
Evolution of various service platforms
- E-commerce, web, finance, banking, beauty industry

| Seller Canvas Marketing content creation | TooToon Cartoon character generation | 4BY4 Video quality enhancement |
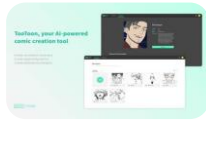
B2B/B2C Industry

Integration of Generative AI with Hardware
Evolution of Conversational Devices
→ Enhancing convenience through conversational AI

Rabbit R1
Text and voice generation

| Samsung Boli | LG Agent | Benz-Google | BMW-Amazon |

Time Compression
Time Reduction and Compression Based on Generative AI

Expansion of digital twin technology, virtual simulation

Microsoft,
Software Development (CloudView, Next Digital Engineering)

Industrial Applications
Business Operations, Process Optimization, Automation, Document Search

| Microsoft Minimize plant downtime | Neuro Create Defect Image |
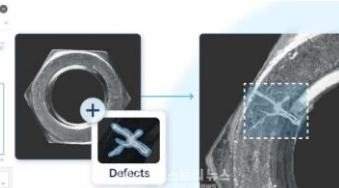
Sources:Car and Driver, Rabbit tech

CES 2025 Keyword – Artificial Intelligence

➢ **Participation of Major Big Tech Companies**

- **NVIDIA**
  - GTC 2024, Blackwell announcement
  - Diverse AI applications

- **Google**
  - Gemini (December 2023)
    - ✓ A multimodal model that understands and generates various formats like text, images, and code
  - Gemini 2.0 (December 2024)
    - ✓ Added "Deep Research" feature to support writing research reports
    - ✓ 2x faster than Gemini 1.5 pro
  - Project Astra
    - ✓ New AI agent launching in May 2024, planned for release in 2025
    - ✓ Gemini 2.0 applied in Dec 2024
    - ✓ AI applications in daily life through space and memory functionality

- **Amazon**
  - Nova (December 2024)
    - ✓ A model that can understand and generate text, images, and videos
    - ✓ AWS Bedrock services
  - Expanding AI infrastructure
    - ✓ Tranium3 development, scheduled for release in 2025

- **Meta**
  - Llama3 (April 2024)
    - ✓ AI research and development applications
  - Meta AI
    - ✓ A new generative AI chatbot
    - ✓ Applications in Facebook, Instagram, WhatsApp, and other search engines

CES 2025 Keyword – Artificial Intelligence

➢ CES 2025 AI Innovation Awards

- **AI Innovation Awards candidate**
  - +49.5% compared to 2024
  - AI-related awards increased from 37 to 40
- **AI Top 40 Innovations (Dec. 10, 2024)**
  - Korean Companies: 24 awards (60%)
    - ✓ 1 Best of Innovation, 23 Innovation Awards
  - CES 2024: 37 AI-related innovations
    - ✓ Korean Companies: 16 awards (around 43%)
      - 1 Grand Innovation Award, 15 Innovation Awards

\<Self-Driving AI Home Hub, LG\>

\<Apollon, Sky Labs\>

➢ Key Trends in CES 2025 AI

- **AI Processors and HWs**
  - On-device AI, AI chips, memory, etc.
- **AI Core SW Platforms**
  - LLM, generative AI based platforms
- **AI Application Technologies – Software and Services**
  - Medical services, document processing, metaverse, etc.
- **AI Application Technologies – Hardware and Devices**
  - Mobility, logistics service, etc.
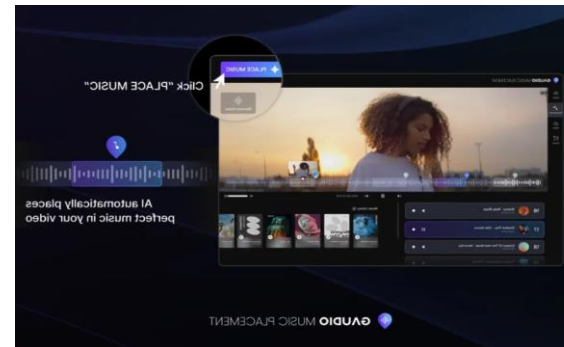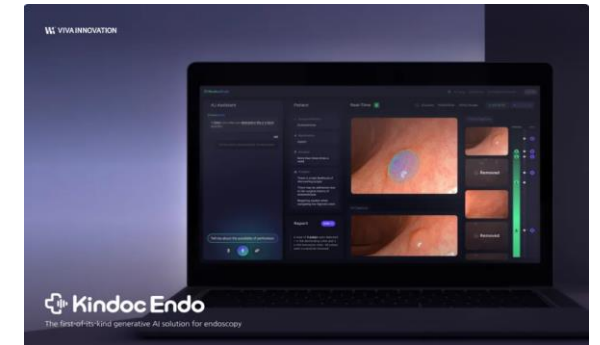
\<Gaudio Music Placement, Gaudio\>

\<KINDOC Endo - The generative AI solution for endoscopy, VIVAINNOVATION\>

\<IL1A-AI based olfactory digital sniffer dog system, ILias AI\>

Sources : CES 2025

CES 2025 Keyword – Artificial Intelligence

➢ **CES 2025 Artificial Intelligence Innovation Awards – AI Processors and HWs (AI Chips, Memory, Servers)**

<REGULUS-AI System-on-Chip for On-device AI, Mobilint, Inc. KR>
- On-device AI chip
- UHD video real-time processing functionality
- Ultra-low power consumption

<AMD Ryzen AI 9 HX 370, AMD>
- NPU processor with 50 TOPS processing power
- Based on AMD XDNA 2 architecture
- Designed for Copilot+ for laptops
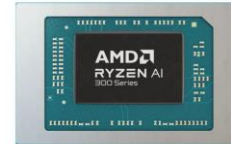
<Qualcomm AI Engine for Snapdragon 8 Elite Mobile Platform, Qualcomm>
- On-device multimodal AI
- Recognizes smartphone sounds and texts
- Assists users in smartphone usage

<MEG Vision X AI, MSI>
- AI-based gaming desktop
- AI HMI touch panel display
- Voice commands via MS Copilot, MSI AI Artist

<STM32MP25, STMicroeletronics>
- Low-power AI capabilities with MCU
- Industrial-grade on-device AI microprocessor

<Aegis RS2 AI, MSI Computer Corp>
- Aegis RS2 15th generation gaming desktop
- NVIDIA graphics and NPU-based Intel CPU

CES 2025 Keyword – Artificial Intelligence

➢ **CES 2025 Artificial Intelligence Innovation Awards – AI Core Technologies (LLM, Conversational AI, Generative AI Platforms)**

<Ailive Studio, Ailive Inc. KR>

- Creating 3D characters using "image-to-3D technology"
- of character dialogues using Text-to-Motion and Text-to-Speech AI.

<AIVAS Interactive Supercomputer, ALAFIA>

- LLM-based conversational AI
- For high-performance personal computers

<GenGenAI, GenGenAI KR>

- AI learning image creation using generative AI
- Software platform for image and video generation

<HP AI Companion, HP>

- AI assistant for long text summation, content generation, and LLM processing
- Region-specific LLM model deployment

<Polaris Office AI Nova, Pollaris KR>

- AI assistant to help you process documents
- AI-powered support for document analysis, data visualization, and image generation

<RevComm, Revcomm >

- AI-based business communication platform
- Analyzes and summarizes phone and web conference content

CES 2025 Keyword – Artificial Intelligence

> ## Artificial Intelligence Innovation Award – AI Application Technology (Software and Services)

<Booxtory, Woongjin Thinkbig KR>
- Generative AI-based reading platform
- Reads books in selected language with customizable voices

<3D Visualization of a X-ray image & Visibility Enhancement, KIST KR>
- Deep learning converts 2D X-ray to 3D
- Useful for hospitals lacking CT equipment

<Gaudio Music Placement, Gaudio, Inc. KR>
- Suggests and syncs music to video mood
- Holds thousands of license-free tracks
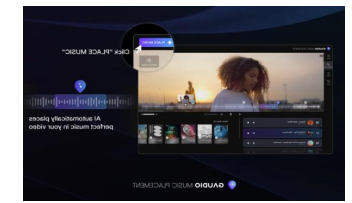
<AI Sign Language Translation Service: Hand Sign Talk Talk, klcube KR>
- AI-based sign language translation
- Converts text to sign language on digital platforms
- Uses 3D avatars

<DeepLounge AD: Real-Time Offline Targeted AD Platform, Triplet KR>
- AI and camera detect visitor gender and age
- Delivers personalized AI advertisements
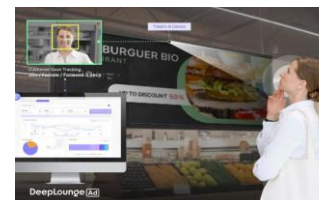
<Just Universe, FLOW STUDIO KR>
- Science experiment education platform
- AI-powered experiment automation system

CES 2025 Keyword – Artificial Intelligence

➢ **Artificial Intelligence Innovation Award – AI Application Technology (Software and Services)**

<IL1A-AI based olfactory digital sniffer dog system, ILias AI Co.,Ltd KR>
- Drug detection via air odor analysis
- Detection by converting odor data and comparing with the database

<AI Echo Care, Inviz Corporation KR>
- AI-powered heart ultrasound function
- Evolved from 3 to over 10 exams per hour
- High diagnostic accuracy of 93%
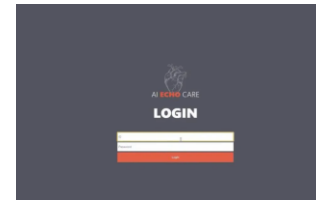
<Apollon, Sky Labs KR>
- Wearable for comprehensive health monitoring
- Wrist module and ring sensor integrated
- Health monitoring and treatment guidance

<KINDOC Endo-The generative AI solution for endoscopy, VIVAINNOVATION Co., Ltd KR >
- Vision AI – Colon tumor detection and analysis
- Tumor clinical diagnosis using Generative AI
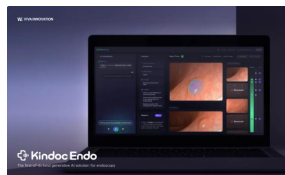
<Ttcare Equine, AI For Pet>
- AI-powered horse health management
- Early detection and prevention of horse abnormalities
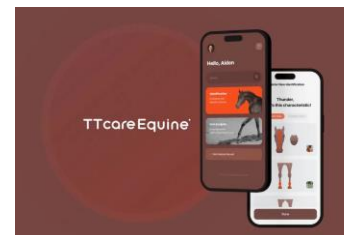
<AI Doc : AI Diagnosis and Prediction Platform for Female Cancer, MTS Company CO., LTD.>
- AI-based women's cancer diagnosis platform
- AR-based disease location and diagnosis information

CES 2025 Keyword – Artificial Intelligence

> ## Artificial Intelligence Innovation Award – AI Application Technology (HWs and Devices)

<Smart Order Pickup System, Pickpad>

- Smart pad with sensors and ML
- Automation for orders, purchases, and points
- Integrates with existing POS systems

< Self-Driving AI Home Hub, LG Electronics KR >

- AI companion robot with autonomy
- Generative AI chat with context awareness
- Hyper-personalized Affectionate AI agent

<AI Logistics Stocktaking Robot, WATA AI Inc. KR>

- Automated inventory checks, 3D mapping, label/barcode detection, and storage check
- Tasks based on positions of people, forklifts, robots, and storage

<first AI Fall Detection Mat, MATRx>

- Mat alerts emergency contact on falls
- AI-powered high-precision pressure matrix
- Impact detection using mat only

<LUCI, OpenInterX>

- Memory-Augmented Vidio Intelligence(Mavi)
- Records life while protecting privacy
- Up to 4 hours continuous recording

<SleepBoard Powered by AsleepTrack, Asleep Co., Ltd. KR>

- Tablet for sleep tracking with AI
- Syncs with smart home for better sleep

CES 2025 Keyword – Digital Health

➢ **The expansion of AI applications: Digital health evolving from diagnosis to treatment.**

- **Advancements in AI and hardware technology**
  - Large-scale dataset construction and AI advancements
  - Advancement of diagnostic and treatment technologies

- **Shift from diagnosis to treatment**
  - Advancement of the digital therapeutics market
  - Shift from diagnostic devices to treatment devices

- **Key Implications from CES**
  - U.S. advancing in digital therapeutics
  - Korea's digital health focused on diagnosis

- **Regulation and market balance**
  - Consider easing regulations for growth

<CARELINK, Plasmapp Co., Ltd. KR>

<TD Square: Tinnitus Digital Treatment Device, Hanyang University KR)

CES 2025 Keyword – Digital Health

➢ **Evolution of digital health and wearables**
- **From Information providing to real-time insights**
  - Advancing to active AI wearables
  - AI applied to pain, fitness, sleep
  - AI monitoring for disease prevention
- **Integration with healthcare industry**
- **Elderly aid and real-time risk detection**

implants

patches

Clothing

Devices

·Activity ·Steps ·Heart rate ·Sleep ·Posture ·Body composition	·Heart rate ·Breathing ·Pulse measurement ·Stress index ·Photo capturing	·ECG testing ·EMG testing ·Diabetes index monitoring	·Heart rate ·EEG ·Temperature ·Pressure ·Blood flow, glucose measurement
Smartphone replacement Ex) Texts, photos, music, remote	Health check Ex) Real-time body changes info	Basic medical services Ex) Pain relief, muscle therapy, posture correction	Precision medicine with user authentication

CES 2025 Keyword – Digital Health

> ## CES 2025 Digital Health Innovation Award – Diagnostic Technology

<QuickGly, Korea I.T.S KR>

- Measures 3-month glucose via HbA1c
- syncs to smartphone via Bluetooth

<CortiSense, Nutrix AG>

- Support for stress and health management
- Non-invasive cortisol measurement
- AI - health integration for preventive care

<FaceHeart CardioMirror, FaceHeart Corporation>
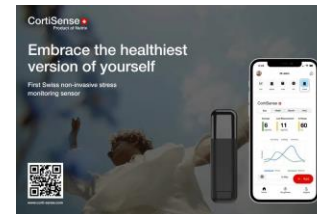
- Smart mirror with rPPG and AI for cardiovascular health
- Detects atrial fibrillation, heart failure (90% accuracy) and monitors vitals

<January AI, January AI>

- Predicts blood glucose using Generative AI and Simulates food impact
- Digital health solution for chronic disease prevention

<BPM Pro 2, Withings>
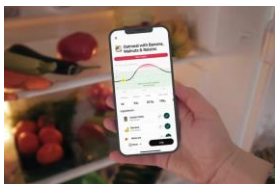
- Blood pressure monitor with ECG and remote health management
- Supports cardiovascular measurement, patient insights, and personalized alerts

<Kardian Bibi, Xandar Kardian Inc.>

- Tracks breathing and heart rate without wearables
- Non-contact health monitor for infants and toddlers

Photo source: CES 2025

CES 2025 Keyword – Digital Health

➤ CES 2025 Digital Health Innovation Award – Treatment Technology

<TD Square, Hanyang University KR>

- Best Innovation in Digital Health
- VR with auditory, visual, tactile feedback for cognitive therapy
- Reduces drug dependence, alleviates tinnitus

<Acheless, PTBRO Inc. KR>

- Pain relief and blood flow improvement via SSP electrodes, microcurrent, and vibration
- Reduces dependence on painkillers

<CAMELEON, CAMELOTECH, Inc. KR>
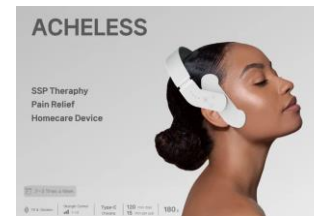
- AI-powered prescription data analysis
- Automated system for customized herbal medicine preparation
- Prepares 180 herbs as liquid, gel, or tablet

<Home MediCare Bed 2.0 with AI Health Concierge, Ceragem Co>

- Personalized medical bed with spinal massage, biomonitoring, and AI voice control
- Supports telemedicine and aromatherapy for health and mental well-being

<ArthronPulse, EntWick Inc. KR>
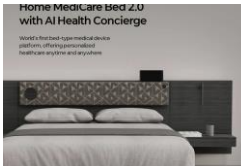
- Non-invasive personal device for degenerative arthritis
- Inflammation reduction, pain relief, and muscle strengthening

<ARTIS, Decasight Corp. KR>

- AR-based simulator for medical training
- Supports safe medical skills with silicone models and clinical tests

Photo source: CES 2025

CES 2025 Keyword – Digital Health

> ## CES 2025 Digital Health Innovation Award – Treatment Technology

<buddy-in, Neudive Inc>

- Digital social skills game for children with ASD

<CARELINK, Plasmapp Co., Ltd. KR>
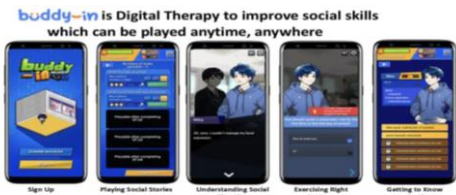
- Plasma device for inflammation, disinfection, and bleeding control
- Adjusts gap and voltage to prevent overcurrent

<CureSilk, Medicosbiotech KR>

- AI diagnostic app and spider silk protein bandages for wound care
- Improves healing speed and accessibility

<AI-powered Home Therapy Booth, Ceragem Co., Ltd. KR>

- AI analyzes biometrics for personalized care
- Auto-sterilization and compact design for hygiene and ease

<CalmiGo Plus, CalmiGo Neurotech>

- Lowers stress hormones without medication
- App provides personalized treatment plans
- Monitors anxiety levels and tracks progress

<FRENZ FocusFlow, Earable Neuroscience>

- EEG-based neurofeedback for focus tracking and cognitive therapy in a digital mental health platform

Photo source: CES 2025

CES 2025 Keyword – Digital Health

➤ CES 2025 Digital Health Innovation Award – Etc.

<BodyGuardz Red Light Converter, BGZ Brands>

- Screen film converts harmful light to red for skin and sleep health
- Light conversion tech enhances wellness

<AI MEDI WATER, Ceragem Co., Ltd. KR>

- AI-IoT integrated real-time health data analysis Fingerprint adjusts water temperature and nutrients for personalized hydration

<Early Cancer Screening Device in Pets, Point Biotech>

- Optical imaging with targeting agent for dog cancer detection
- Visualizes tumors even under ambient light

<Electric Salt Spoon, Kirin Holdings>

- Tableware device enhances saltiness and umami via electrical stimulation

<eufy Wearable Breast Pump S1 Pro, Anker Innovations>

- Wearable breast pump with heating function to stimulate milk flow
- Hands-free with smart app integration

<Cellpuri® Series, Curiosis Inc. KR>

- Microchip-based system simplifies cell separation without experimental equipment
- Portable for early diagnosis in underserved areas

Photo source: CES 2025

CES 2025 Keyword – Sustainability

➢ **Sustainability**

- ▪ **Efforts to overcome climate crisis**
  - Use of recycled and sustainable materials
  - Minimizing carbon emissions
  - Ensuring energy efficiency
  - Energy harvesting

- ▪ **Key exhibits**
  - Purification technology
  - Eco-friendly energy technology
  - Energy reduction technology
  - Waste recycling technology
  - Battery-related technology

<PRiMX680 Module+, SAMSUNG SDI KR>
- Advanced EV battery module with 178Ah NCM cell
- Wireless CSC simplifies design, boosts efficiency and reliability
- Wide application from small to large EVs with high energy efficiency

(*PRiMX는 SAMSUNG SDI's Battery Brand)

<DesalInno 100A, Solarinno KR>
- Portable device purifies water by removing ions and metals
- Low power (200-300W) without expensive filter replacements

source: CES 2025

CES 2025 Keyword – Sustainability

➤ **CES 2025 Sustainability & Energy/Power Innovation Award – Purification Technology**

<Farady Reactor, VVater>
- Best Innovation in Sustainability
- Chemical-free water purification technology

<High Impact Biofilter (HIB),
Biomechatronics France (BiomiTech)>
- Industrial-scale filtration for SO_x, CO, CO_2, NO_x, and particles (2.5-10μm)

<DesalInno 100A, Solarinno KR>
- Portable water purifier removes ion pollutants
- Low power (200-300W) with no costly filters

<MEW AirPurifier, A2US KR>
- Electrohydrodynamic air purifier generates hydroxyl radical mist
- Removes bacteria, viruses, and fine dust

<Nanobubble Generator,
Fawoo Nanotech Co., Ltd. KR>
- Nano-bubbles capture CO2 and dissolve in liquid
- Converts CO2 into concrete and materials, reducing emissions

Photo source: CES 2025

CES 2025 Keyword – Sustainability

> ## CES 2025 Sustainability & Energy/Power Innovation Awards – Battery Technology

<PRiMX680 Module+, SAMSUNG SDI, KR>

- Advanced EV battery module integrating 178Ah high-capacity prismatic NCM cells
- Improved efficiency and reliability with a wireless CSC (Cell Sensor Circuit) technology for simplified design and manufacturing

<PRiMX680-EV, SAMSUNG SDI, KR>

- Utilizes high-nickel NCA material and advanced stacking processes
- Provides energy density of 680Wh/L, extending driving range

<Leo: the Battery Life Extender, Liion Power B.V.>

- Extends battery lifespan of USB-charged devices by up to 63%
- Easy plug-and-play operation
- Reduces electronic waste

<Self-Contained Power Supply Coin Battery, SMK Electronics Corp.>

- Coin battery capable of self-charging through solar panels and power storage devices

<IMMERSIO™ XE50 Battery System, XING Mobility>
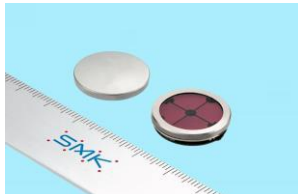
- Extends battery life by 15% using encapsulated cells with thermal insulation
- Reduces operating costs with approximately 40% weight and space savings

<Lyten Lithium-Sulfur Batteries, Lyten>

- Lithium-sulfur batteries manufactured using proprietary 3D Graphene™ technology
- Designed in pouch and cylindrical formats for applications in automotive and aerospace industries
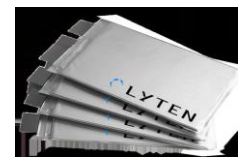
사진 출처: CES 2025

CES 2025 Keyword – Sustainability

➢ **CES 2025 Sustainability & Energy/Power Innovation Awards – Energy and Other Technologies**

<DATAGREEN G2FD, NETSOOON.AI>
- Energy-Efficient Data Center
- Direct Liquid Cooling Rack applicable to all types of hardware

<SBB1.5, SAMSUNG SDI KR>
- Energy Storage System Integrated with Batteries and Essential Components into a 20ft ESS Enclosure
- Installed and tested at the factory to reduce installation time.

<SBMS for Lithium Battery Fire Extinguishment, KOREA LFP KR>
- Fire Suppression System Integrated into Battery Management System (BMS)
- Automatically releases CO2 to remove oxygen and prevent overheating
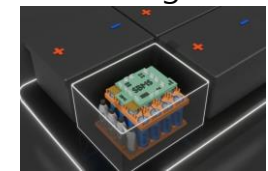
<ROBin, ROBOneCo.,Ltd KR>
- Advanced waste sorting system integrating AI and high-speed delta robots
- Equipped with 3D vision AI to identify and sort up to 85 waste items per minute

<Vehicle mounted ESS charging system for charging AAM and EV, NFUTURE CO., Ltd KR>
- Supports emergency and on-site charging for EVs and urban air mobility.
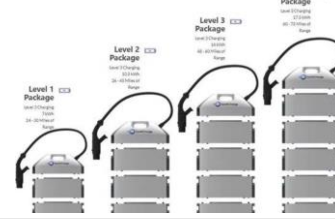
<LIVALL PikaBoost 2 E-bike Conversion Kit, LIVALL Tech. Co., Ltd.>
- E-bike conversion kit to transform regular bicycles into electric bikes

사진 출처: CES 2025

CES 2025 Keyword – Mobility

➢ **Mobility with various advanced technologies**

  ▪ **Eco-friendly**

    • Electric vehicles and hydrogen vehicles

  ▪ **Autonomous driving**

    • Autonomous driving processors - Autonomous driving sensors - Autonomous driving software

  ▪ **SDV**

    • Automotive software

  ▪ **LLM**

    • Advancements in generative AI and services

  ▪ **Expansion of mobility**

    • Ships, UAM, robots, etc.

➢ **Key issues in the automotive industry**

  ▪ **Application of next-generation EV - Autonomous driving - SDV platforms**

    • Mercedes-Benz Concept CLA Class

    • Volvo EX90

사진 출처: Volvo

CES 2025 Keyword – Mobility

➢ **CES 2025 Mobility Innovation Trends**

- **Fusion of AI and high-performance sensors**
  - AI enhancing sensor performance

- **AI-based sensor recognition technology**
  - AI-based high-resolution frame generation
  - Object recognition technology
  - LiDAR sensors capable of color recognition

- **Expansion of display sensors**
  - Transparent display
  - Brightness-adjustable display
  - Flexible/thin displays, etc.

< **AI-based intelligent location system, Tern AI** >

< **In-vehicle detection radar system, Magna International** >

< **Transparent display, Holographic Transparent Camera**>

< **Thin circuit board lighting, Nexlide A+ Vehicle Lamp Module** >

CES 2025 Keyword – Mobility

> ## CES 2025 Vehicle Tech & Advanced Mobility Innovation Award, Smart City Innovation Award

<ML-U, SOS Lab Co., Ltd. KR>

- Depth data and color image-generating LiDAR sensor
- Colorizes infrared data using deep learning

<TraXight, bitsensing KR>

- Smart City Innovation Award
- Intelligent Transportation System (ITS) solution
- Real-time traffic monitoring using radar data

<TMC EDGE, Thermoeye Inc KR>

- AI-based thermal imaging camera
- Enables simultaneous distance measurement and object recognition
- Excellent visibility in bad weather

<IDPS (Independently Derived Positioning System), Tern AI>

- AI-based intelligent positioning system
- Location tracking possible in GPS-restricted environments

<Interior Cabin Sensing (ICS) 21 Radar, Magna International>

- Advanced radar system for vehicle interior
- Main purpose is to detect occupants inside the vehicle

<Novel Flash LiDAR with SiPM Sensor and Diffraction Optics, Integrated Quantum Photonics Inc. (IQP)>

- Flash LiDAR designed to enhance autonomous vehicle performance
- Provides accurate distance and 3D images with microSiPM sensors

사진 출처: CES 2025

CES 2025 Keyword – Mobility

➢ **CES 2025 Vehicle Tech & Advanced Mobility Innovation Award**

<Holographic Transparent Camera, ZEISS Microoptics>

- Mobility Sector Best Innovation Award
- Uses holographic optical elements to convert transparent areas into camera

<Nexlide A+ Vehicle Lamp Module, LG Innotek Co., Ltd. KR>

- Automotive headlight lighting system
- Provides uniform lighting with multi-light packages on a thin circuit board.

<Intelligent Illuminated Door Panel, TactoTek>

- Lighting solution for vehicle door panels
- Minimizes the number of LEDs by utilizing Surface Light™ technology

<EB corbos Linux for Safety Applications, Elektrobit>
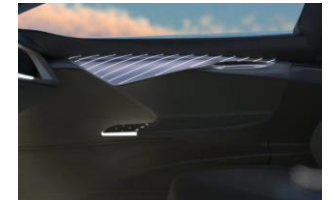
- Open-source automotive operating system solution
- Utilizes Linux for ADAS and autonomous driving applications

< Dolphin: Animals that hear the widest range of frequencies, CIT Co., Ltd. KR >

- Transparent antenna using copper-based film technology
- Supports a total of 6 frequency bands

<CryoFlux PowerCable, TMEV Net KR>

- Ultra-fast, ultra-lightweight, high-efficiency charging cable
- Resolves overheating issues in megawatt charging
- Utilizes liquid cooling technology

CES 2025 Keyword – Robotics

➤ Key Trends in Robotics

- **Evolution of robotics technology due to advancements in AI and automation**
  - Accelerated learning speed of robots using AI
  - VLA(Vision-Language-Action)

- **Proliferation of humanoids**
  - New evolution through humanoids + LLM
  - Replacement of various tasks

- **Collaborative robots**
  - Collaborative robots for diverse tasks

- **Delivery robots**
  - Robots for delivery

➤ Various service robots

- **Smart home service robots – Providing mobility & LLM assistants**
- **Cooking robots - Food tech**
- **Pet care robots - Pet market**
- **Digital health/silver care robots - Care services**

< Robot for creating grooves on wet concrete surfaces CONIT-Runner>

< Robot Romi that alleviates anxiety and loneliness >



< Medical robot system IM_Pathfinder_Navi>
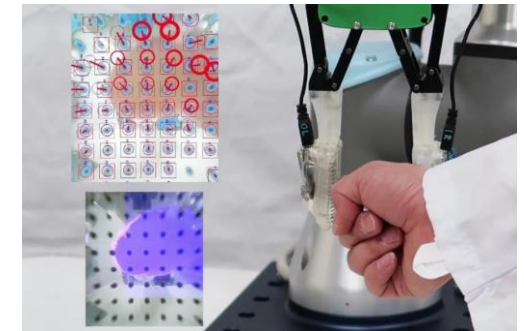
< Industrial robot capable of handling food ingredients FingerVision R1>

사진 출처: CES 2025

CES 2025 Keyword – Robotics

CES 2025 Robotics Innovation Award – Service Robot

<Hypershell Carbon X, Hypershell Co. Ltd>

- Outdoor exoskeleton device
- Provides up to 800W of power with M-One motor to alleviate physical strain
- Ultra-lightweight ergonomic design for comfortable wear

<GENCY PB (AI Photography Robot), STUDIO LAB KR>

- AI photo robot mimics photographers using robotic arm and autonomous driving features
- Uses generative AI (GENCY) for photo editing after capture

<H-Medi: All-in-one Gait Rehabilitation and Prognosis, HUROTICS Inc. KR>

- World's first all-in-one wearable medical robot for mobility impairments
- Predicts disease prognosis with 92% accuracy using AI

<Conversational AI Robot Romi, Mixi, Inc.>

- Enhanced Romi robot for alleviating anxiety and loneliness, designed to be more human-like
- Expresses emotions through facial expressions (displayed on LCD) and body movements

<IM_Pathfinder_Navi, IMSYSTEM Co., Ltd. KR>
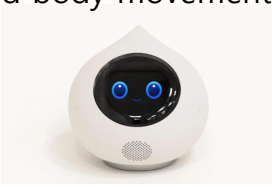
- Robot system designed to treat vascular diseases
- Uses magnetic fields to quickly and precisely maneuver guide wires in 3D, reducing procedure time

<WYBOT S2 Solar Vision Robotic Pool Cleaner, Wybotics Co., Ltd.>

- World's first wireless pool cleaning robot
- Returns to solar charging station to recharge itself and handles all cleaning tasks autonomously

사진 출처: CES 2025
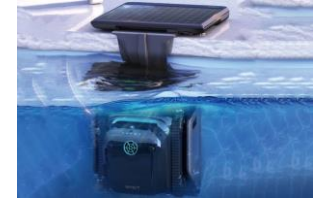
CES 2025 Keyword – Robotics

> ## CES 2025 Robotics Innovation Award – Industrial Robot

<FingerVision R1, FingerVision>
- World's first robot with tactile sensors
- Accurately places various ingredients on lunchbox assembly lines
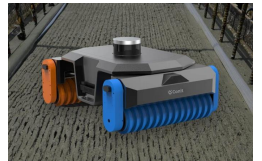- First industrial robot capable of directly handling food materials
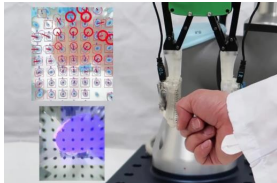
<ARII: Autonmous Robotic System for Industrial Inspection, R2C2 Limited>
- Robot brain that enhances the robot's ability to Identify and diagnose problems independently

<CONIT-Runner, POSCO E&C and ITONE>
- Robot that creates uniform grooves on wet concrete surfaces at construction sites
- Automates hazardous tasks to improve worker safety

<MobiRobo, Kailas Robotics>
- Ultra-lightweight, high-performance robotic arm
- Provides exceptional precision and stability in dynamic work environments

<Delto Gripper-3F05 (DG-3F05), Tesollo Inc. KR>
- Robot hand that moves as delicately as a human hand
- Composed of 3 fingers and 12 joints, capable of mimicking complex hand movements

<DisMantleBot: Modular Robots for Dismantling EV Battery, THOTH.Inc KR>
- Modular robot designed for efficient disassembly of electric vehicle batteries
- Determines whether to fully or partially disassemble based on battery condition
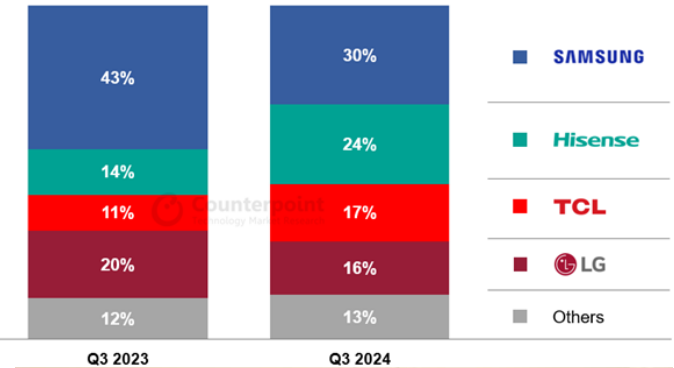
CES 2025 Keyword – Smart Home

➢ **2024 TV Industry Trends (year-on-year)**

▪ **Q1 2024 global TV shipments decreased by 4%**

• Stagnation in the Chinese and Japanese markets

▪ **Q2 2024 global TV shipments increased by 3%**

• European TV market grew by 13% due to the Olympics

▪ **Q3 2024 global TV shipments increased by 11%**

• Marked 62 million

• Decreased TV replacement cycles

• Growing consumer preference for larger screens

➢ **2024 Home Appliance Industry Trends**

▪ **Global home appliance market maintains a gradual growth trend (Foutine Business Insights, Oct 2024)**

• 2023 Market Size of $708.1 Billion → $743.5 Billion in 2024

• Maintaining growth in 2024

▪ **Domestic home appliance industry is experiencing slow growth (KDI, Sep 2024)**

• Rapid growth in China and intensified global competition

• Decrease in production in Korea due to expanded overseas manufacturing

Premium TV Shipments Share Q3 2024 vs. Q3 2023

	Q3 2023	Q3 2024
SAMSUNG	43%	30%
Hisense	14%	24%
TCL	11%	17%
LG	20%	16%
Others	12%	13%

사진 출처: 각 사, CounterPointResearch

CES 2025 Keyword – Smart Home

➤ **Samsung / LG New Home Appliance**

▪ **Samsung AI Appliances**
- High-performance AI chips, cameras, and sensors enabling various AI features
- 2025 QLED TV, Neo QLED TV
- AI-based resolution enhancement technology expected to be showcased

▪ **LG AI and Display-Related Appliances (LG Electronics Newsroom, Nov 2024)**
- "LG OLED TV" won a total of 6 Innovation Awards
  - ✓ Best Innovation Award in the Video-Display category
- "LG UltraGear™ OLED Gaming Monitor" won the Best Innovation Award
- Proposed the concept of an AI Home Platform
  - ✓ webOS platform – Innovation Award in the Cybersecurity category
  - ✓ Generative AI Home Hub "LG ThinQ On"
  - ✓ Portable AI Home Hub - Innovation Award

➤ **CES 2024**

▪ **Transparent Displays**
▪ **Smart Home Robots**

CES 2025 Keyword – Smart Home

➤ **AI and Connectivity Based Smart Home Services**

- **Interactive AI Robots**
  - Robots for Single-Households
    - ✓ Emotional companion robots
  - Generative AI, LLM-based Conversational Robots
    - ✓ Control various home IoT devices

<Emotional Robot, Self-Driving AI Home Hub >

<Robots for the Elderly, LEMMY >

<Smart Home Central Hub, LG ThinQ ON >

- **Personalized Smart Home**
  - Customized user Services and Functions
  - Services for Improving Quality of Life
    - ✓ Better sleep, massage chairs, air purifiers, etc.

< Improved sleep, AI Mopil >

<Personalized Massage Chair, Familie C >
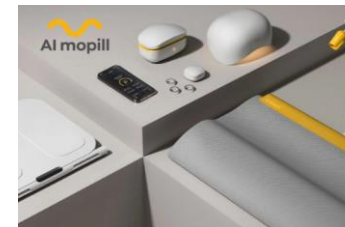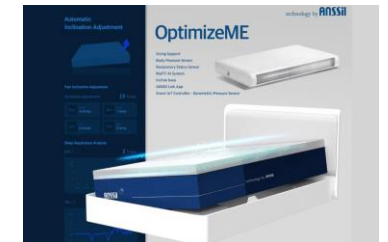
< Personalized Mattress, OptimizeME >

- **Connected Home**
  - Subscription Services
  - Expansion of Matter Standard-Supported Products

CES 2025 Keyword – Smart Home

CES 2025 Smart Home Innovation Award

<LEMMY, SHINSUNG DELTA TECH CO., LTD. KR>
- Companion and care robot for the elderly
- Physical, cognitive, and emotional understanding
- Real-time data collection and customized services using home sensors

<LG ThinQ ON, LG Electronics KR>
- AI voice assistant serving as the central hub of the smart home
- Interactive commands using generative AI
- Home appliance control through interactive commands

<mui OS by mui Lab, mui Lab, Inc.>
- Connected home service to support independent living spaces for users
- Based on Calm Technology for user privacy

<OptimizeME, Anssil Co., Ltd. KR>
- Adjust mattress firmness based on sleep posture and pressure sensors
- Analyze irregular breathing patterns to adjust angles in real time

<Philips Wi-Fi Palm Recognition Smart Deadbolt, Idlespace Technology Company Co,. Ltd>
- Residential smart lock using palm recognition
- Contactless palm pattern recognition

<Self-Driving AI Home Hub, LG Electronics KR>
- Hyper-personalized agent with Affectionate Intelligence that enhances user experience
- Autonomous movement enabled by visual recognition and AI voice interaction

Source: CES 2025

CES 2025 Keyword – Smart Home

➢ **CES 2025 Home Appliances Innovation Award**

<AI Mopil, 10minds Co., Ltd KR>
- Smart pillow for snoring relief
- Connects to a smart ring to measure oxygen saturation and diagnose sleep health
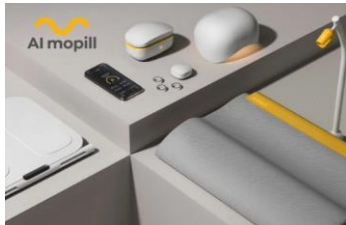
<AirShifter, Proxgy>
- LiDAR-based room sensing and automation
- Integrated HEPA purifier and UV light for air purification and cooling

<Backup by BioLite, BioLite>
- Safe, affordable, and self-installable home energy storage
- Provides up to 60 hours of instant backup energy

<Food Waste Treatment, PORE, Inc KR>
- Food waste disposer processing up to 95% and averaging 80%
- Optimal processing through weight and type recognition of food

<Familie C, Bodyfriend KR>
- Personalized massage designed according to body shape and shoulder position analysis
- Uses magnetic fields to stimulate the pelvis and muscles

<Eden Rovo 25, Bodyfriend KR>
- Massage chair with independently functioning leg and arm massage features
- Strengthens core and improves shoulder and arm mobility with independent massage

CES 2025 Keyword – Human Security

➢ **CES 2025 Human Security For All Innovation Award Category**

▪ **Technology for detecting accidents**
- Real-time data collection and analysis using AI and IoT
  ✓ Early detection of predictable risks like fires and power accidents

< Electric fire detector, HL HAECHIE>

<Prevention of power outages and fire damage, HyperGrid NX >

<Rescue target detection, SAI-VDS >
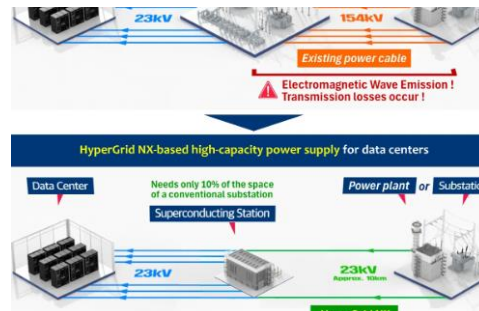
▪ **Technologies for disease prevention and treatment**
- Personal health management
  ✓ AI and biometric data analysis for early disease diagnosis, prevention, and treatment

<Depression improvement, Neuro Wellness Enhancer>

<Cancer diagnosis and prevention, Prevenotics-G Pro>

<Urine analysis, URINE CHECK-ER >

CES 2025 Keyword – Human Security

➢ **CES 2025 Human Security For All Innovation Award**

<HL HAECHIE, HL Mando KR>
- Detects and prevents UV emissions from electrical arcs, a major cause of fires
- Wide detection range, compact size, and easy installation

<HyperGrid NX, LS ELECTRIC Co., Ltd. , LS Cable & System Ltd. KR>
- High-capacity power transmission system
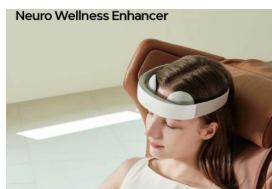- Reduces time and cost by minimizing the need for grid expansion and construction

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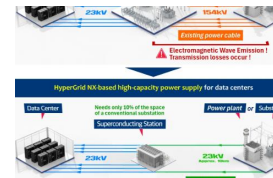
<SAI-VDS: Victim Detection System with Reflection Control, SAI Technologies>
- Detects people on reflective surfaces like water and snow
- Using cameras that utilize light reflection and AI

<Neuro Wellness Enhancer, Ceragem Co., Ltd KR>
- Home device for relieving depression
- Non-invasive micro-direct current stimulation helps to balance brain activity

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< Prevenotics-G Pro: AI Gastric Cancer Prevention Solution, Prevenotics Inc. KR>
- Personalized system for real-time cancer diagnosis and prevention across all stages

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<URINE CHECK-ER (Cup-type Personal Urine Analyzer) , D&C Biotechnology Inc.>
- Cup-type urine analyzer that allows for medical-grade urine testing at home

CES 2025 Keyword – Accessibility

➢ **CES 2025 Accessibility & AgeTech Innovation Award**

▪ **Rehabilitation Assistance Technology**

- Supports physical function recovery and independence
- Customized technology providing rehabilitation solutions for diverse users

▪ **Technology to Alleviate Physical Discomfort**

- Address discomforts in vision, hearing, and mobility
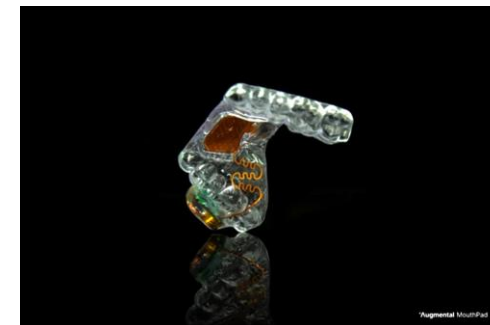- Ensures individual independence and improves quality of life

<Bio Leg, BionicM>

<H-Medi, HUROTICS Inc. KR>

<Seekr, Vidi Labs Ltd>

<EasyPlus, Route Finders>

<BLING , Braindeck KR>

<MouthPad^, Augmental>

CES 2025 Keyword – Accessibility

➢ CES 2025 Accessibility & AgeTech Innovation Award

<Bio Leg, BionicM>

- Robotic prosthetic leg designed to enhance mobility for above-knee amputees
- Powered by electric motors and multiple sensors
- Support smooth, discomfort-free movement

<H-Medi, HUROTICS Inc. KR>

- Rehabilitation Solution for aging societies
- Supports rehabilitation and prognosis of gait disorders using AI wearable technology

<Seekr, Vidi Labs Ltd>

- Compact AI-based wearable device
- Collects visual data and provides audio information
- high accessibility for the visually impaired

<EasyPlus, Route Finders>

- Media platform service developed to improve smartphone usability for the visually impaired
- AI-powered media tailored to user interests
- Expands to digitally underserved groups
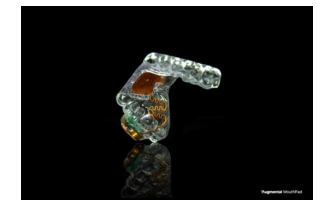

<BLING , Braindeck KR>

- Real-time speech and sign conversion for language disabilities
- Supports communication and speech practice
- Enables real-time communication through speaker output and projector display

<MouthPad, Augmental>
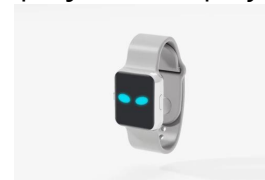
- Wireless mouse interface controlled by tongue and head gestures inside the mouth
- Provides convenient and safe accessibility for people with disabilities

New Tech Market

> **CES 2025 Innovation Award New Trends**

Food Tech

Beauty Tech

CES 2025
Innovation Awards

Pet Tech

Ag Tech

CES 2025 Keyword – Food & Ag Tech

> ## CES 2025 Food & Ag Tech Innovation Award

\<AI Plant Box, Daedong KR\>

- AI-based automatic environment control and plant monitoring with integrated cameras
- Energy-efficient home agricultural device
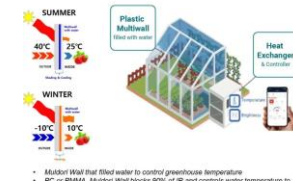- Easy-to-use cultivation tray for all age groups

\<AirFarm: Food ARK, Midbar Co., Ltd. KR\>

- Recycles water using patented technology that converts vapor into water
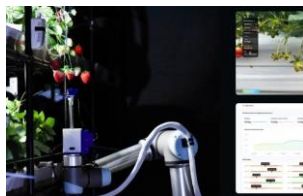- Sprays water directly to roots for optimal water efficiency

\<Dynamic Aqua Blind (Muldori Wall), In-Nature KR\>

- Multi-layer wall insulation system using water to regulate greenhouse temperature
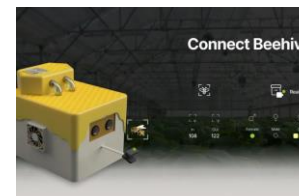- Modular design customizable to greenhouse size and climate

\<Metafarmer with Tapfarmers, Metafarmers Inc. KR\>

- Crop-harvesting robot
- Software for remote farm management
- Improves agricultural productivity and efficiency

\<Connectbee, Farmconnect Corp. KR\>

- Tracks bee activity in real time using AI
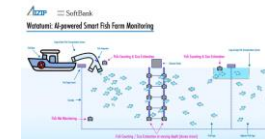- Analyzes pollen for plant pollination
- Manages hive conditions with built-in sensors

\<Watatumi: AI-powered Smart Fish Farm Software Suite, Aizip & Softbank Corp.,\>

- Monitors key aquaculture activities like feeding and fish movement using AI
- DNN estimates fish count and net damage

CES 2025 Keyword – Pet Tech & Animal Welfare

➢ **CES 2025 Pet Tech & Animal Welfare Innovation Award**

<Feed Heat Monitor® - first ever wearable cow health monitor, HRG Inc.>
- Monitoring 8 important Physiological Signals
- Early Detection of Infections and Optimized Farm Management

<Pawport, Pawport>
- A door exclusively for pets
- Remote Control and Management by connecting with dedicated apps
- Voice Control and Pet Tracking

<PETPA Multi-Pet Feeder, PETPA>
- Designed for Multi-Pet homes
- Devices for Pets Requiring Weight Management or Prescription Diets
- Using Pet Recognition Technology to Ensure each Pet Receives Its Specific Food

< VET CAI, BrainU Co.,Ltd KR >
- EEG-based depth of anesthesia measurement developed specifically for animals
- Tracks consciousness and prevents over- or under-anesthesia

<Reli Birddy Smart Bird Bath, >
- Automatic cleaning, water monitoring, and temperature control for a safe environment for birds
- Operates on solar power, with remote settings adjustment and usage monitoring via an app

<Birdfy Feeder 2 Duo, Netvue Technologies Co., Ltd>
- Bird feeder that captures bird movements in high-speed FPS
- Solar-powered with real-time notifications and AI species identification via a mobile app.

CES 2025 Keyword – Beauty & Personal Care

> ## CES 2025 Beauty & Personal Care Innovation Award

<BoldJet by FlowBeams, FlowBeams B.V. >

- Needle-free microjet technology for painless injections
- Enhances safety and efficiency in beauty and medical markets

<e1, epitome GmBH>

- AI and robotic system for 99% teeth cleaning in 30 seconds
- Precise oral health analysis for professional dental care

<Gait Beauty Measurement System, Shiseido Co., Ltd.>

- A solution to improve movement and impression through gait
- Analyzes walking posture and suggests the ideal gait.

<SHISEIDO Skin Visualizer, Shiseido Co., Ltd.>

- Contactless skin analysis device offering personalized beauty advice
- Real-time analysis of skin glow and elasticity

<Sleepisol Lite, Leesol Co., Ltd KR>

- Headband for insomnia and depression
- Portable and easy to use without charging
- Long-term mental health improvement with regular use

CES 2024 Innovation Awards of Korea

➤ **Key Achievements at CES 2025**

▪ **Samsung / LG Innovation Awards**

- Samsung Electronics Wins 29 Innovation Awards
  - ✓ 4 Best Innovation Awards, 25 Innovation Awards
    - Awards in Video Displays, Home Appliances, Mobile, Semiconductors, and Harman
    - Technological Advances in 2025 QLED TVs, Neo QLED TVs, and AI Video Processing Technologies
- LG Electronics Wins 24 Innovation Awards
  - ✓ 3 Best Innovation Awards, 21 Innovation Awards
    - Awards in Video Displays, Home Appliances, AI, Gaming, and Computer Hardware
    - LG OLED TV Wins CES Best Innovation Award for 3 Consecutive Years

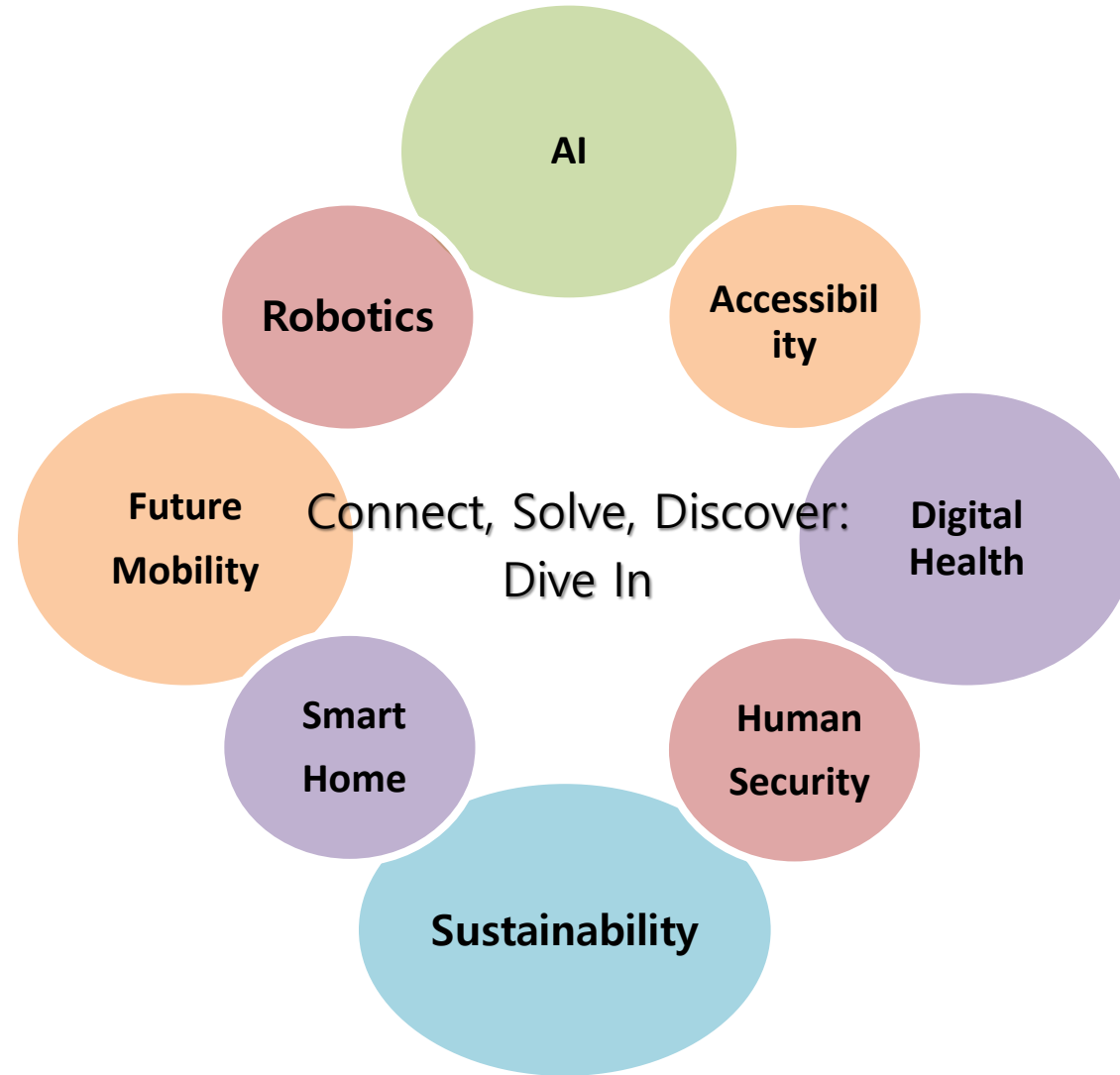▪ **Diverse areas including Artificial Intelligence (AI), finance, security, and drones**

➤ **CES 2025, Keywords**

Summary and Implications

➤ **CES 2025, Key Issues and Implications**

- **Concerns About Offline Exhibitions**
  - Participating Companies
  - – NVIDIA, Meta, Google, Amazon, Mercedes-Benz, BMW, VW, etc.
  - Non-Participating Companies
  - – GM, Ford, Stellantis, etc.
- **Importance of Developing Sustainable Technologies**
  - Strengthening Corporate Competitiveness and Fulfilling Social Responsibilities
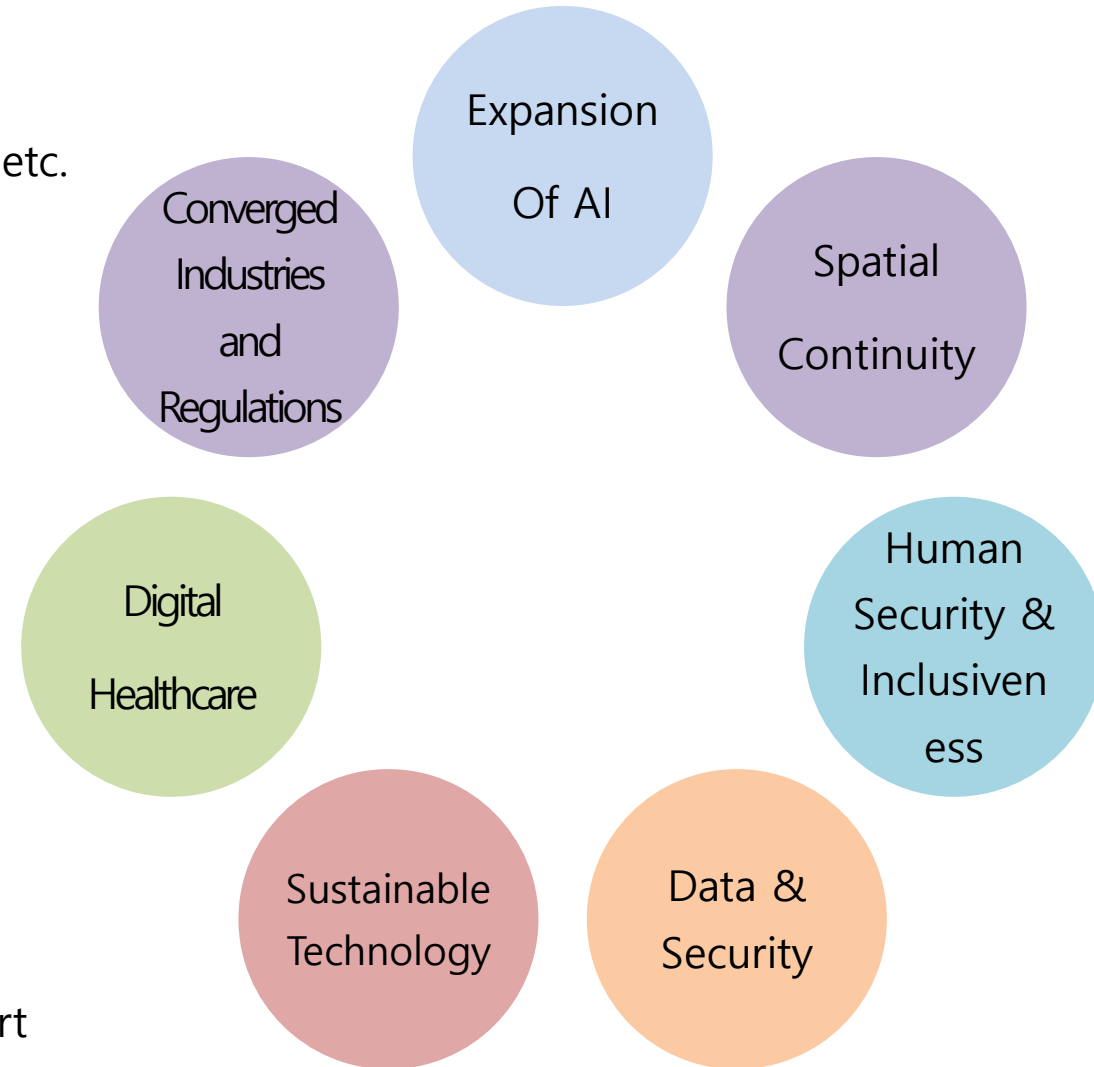- **The Rise of Personalized Digital Healthcare**
  - Expansion of Personalized Services Due to the Increase in Single-Person Households
  - Improving Accessibility and Efficiency of Healthcare Services
- **Expectations for Korean Companies at the Exhibition**
  - Winning Numerous Innovation Awards
  - Expectations for Strong Performance in 2025
- **The Need for Startup Support**
  - The Necessity of Government Investment and Growth Support

Converged Industries and Regulations

Expansion Of AI

Spatial Continuity

Digital Healthcare

Human Security & Inclusiveness

Sustainable Technology

Data & Security

Summary and Implications

➢ **Crisis is an opportunity**

- **Survival Innovation**
- **Need for Investment in Technological Innovation**

- **themilk trendshow 2025, 2024.09**

"Korea's technological innovation
 will be the key to CES 2025's success."

Gary J. Shapiro CTA(Consumer Technology Association) CEO

THANK YOU!

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