



# A New Lifestyle Powered by Innovation

A Report on the Trends in Home Appliances and Consumer Electronics from AWE2024

AWE Committee, June 2023

# Preface

Amid the boom of technological innovation, the 2024 Appliance & Electronics World Expo (AWE2024) presented a grand showcase of the latest tech products, as well as a profound discussion of future lifestyles. At AWE2024, we witnessed the seamless integration of smart technology into home appliances and consumer electronics. Many businesses showcased AI-powered products, offering a more streamlined, natural, and intuitive smart experience. AWE2024 showcased integrated achievements across home appliances, smart city management, and the people-vehicle-home ecosystem, leading users to a new era of smart living. The expo presented a range of customized, well-designed, and elderly-oriented products and solutions tailored to diverse consumer needs. At AWE2024, we saw future trends in home appliances and consumer electronics, gaining insights into the new challenges and opportunities ahead. These trends not only predict the industry's future but also paint a picture of a smarter, greener, healthier, and more personalized future life.

**Join us at AWE to check out the new lifestyle you want!**

# Industry Trends

**Trend 1:** The smart home ecosystem is maturing with industry innovation amidst the AI revolution

**Trend 2:** Sustainable development is the inevitable path for industry growth

**Trend 3:** A smart life that starts from smart home health management

**Trend 4:** The art of the integration of home appliances and furnishing

**Trend 5:** People-vehicle-home connectivity: A new era of smart travel

**Trend 6:** The silver economy: New opportunities in health and wellness

**Trend 7:** Customized living driven by emotional resonance and personalized experiences

**Trend 8:** New aesthetics: The future perspective of home appliance design

# Trend 1:

## The smart home ecosystem is maturing with industry innovation amidst the AI revolution

The rapid advancement of smart technologies is bringing unprecedented changes to home appliances and consumer electronics. At AWE2024, AI was ubiquitous, as smart technologies empower every product category, from televisions, refrigerators, air conditioners, and washing machines to steam ovens, bottle warmers, and hair dryers.



↑ Smart products such as Haier's HomeGPT, active smart services, and AI refrigerators are fully integrated with AI capabilities.

→ Samsung's futuristic "AI-powered Tech, Art, and Home"



## Trend 1:

AI holds immense potential in the context of whole-house intelligence. It is expected to evolve into a digital home assistant that can link and control smart home systems such as energy management, lighting, security, and environmental control.

Smart applications are embracing AI, profoundly changing the industry landscape.

- AI applications are empowering essential product functions. They are enhancing the audio-visual quality of smart TVs and providing smart regional freshness in refrigerators, offering users more precise, personalized services.

- AI will transform our interactions with smart products. With better applications of natural language and gesture recognition, AI brings users more natural interactions.

- AI technology is helping smart appliances become more energy-efficient, reduce energy consumption, and save household energy costs.

- Humanoids have entered a new stage in home scenarios. With AI empowerment, home robots are acquiring capabilities such as autonomous movement, perception, learning, and interaction. In addition to simple household tasks, they will become our smart assistants.



← Huawei presented its 1+8+N smart life solution for five scenarios, including travel, office, home, sports & health, and audiovisual entertainment, providing consumers with a connected smart experience.



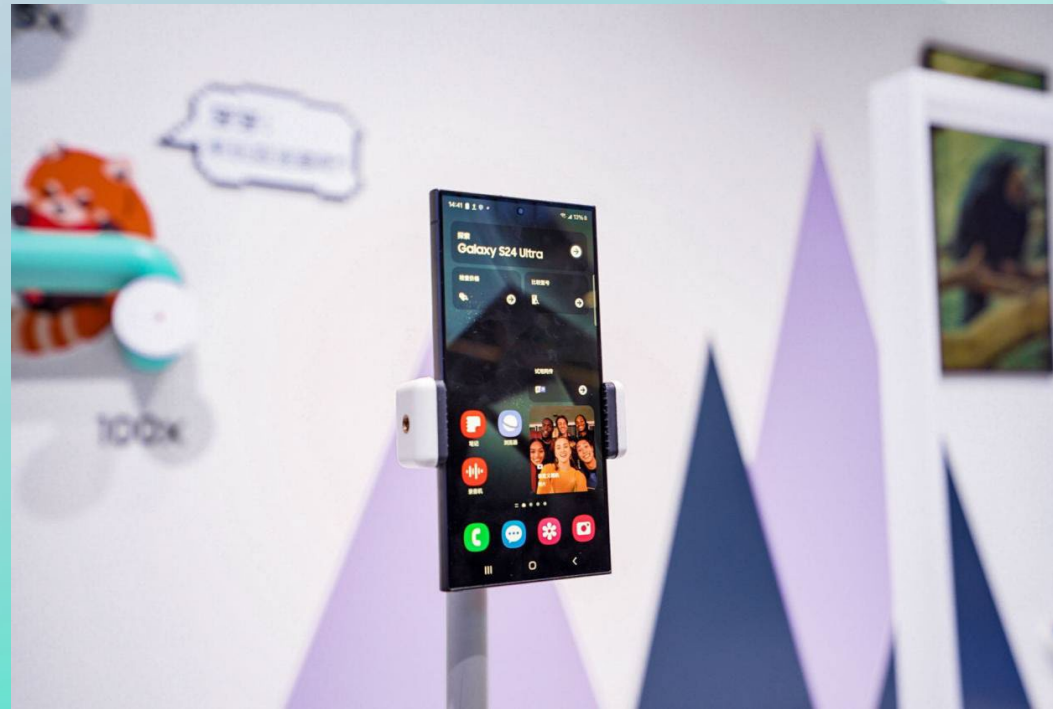
→ Haier, in collaboration with Leju Robotics, debuted Kuavo, China's first humanoid for home scenarios. The robot can not only jump and adapt to various terrains but can also perform household tasks like laundry, watering plants, arranging flowers, and hanging clothes.

## Trend 1:

The smartification of home appliances and consumer electronics is an undeniable trend. Smart technologies, including AI, are deeply integrated with home appliances and furnishings. From individual smart products and smart scenarios to smart homes and the interconnected people-home-vehicle ecosystem, the level of intelligence and user experience have kept improving. Meanwhile, the smart home ecosystem is becoming increasingly mature.

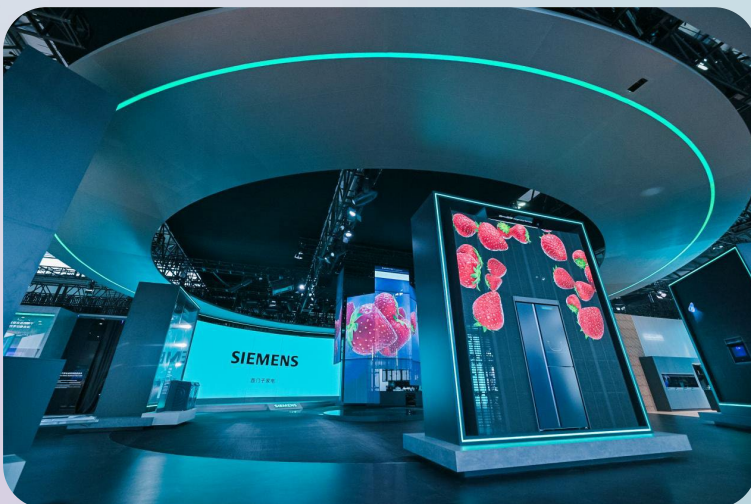


← HiSilicon showcased its "5+2" smart terminal solutions, featuring five product solutions that include three audio-visual-based solutions (Honghu Media, Zhuque Display, and Yueying Vision) and two connectivity-based solutions (Gigahome Network and Balong Wireless), as well as two ecosystem solutions (NearLink IoT and A<sup>2</sup>MCU).



← The Galaxy S24 series, Samsung's first AI phone, delivers Galaxy AI experiences across a range of scenarios, including communication, searches, work, study, and video making, which highlights the practical and convenient integration of AI into smartphones.



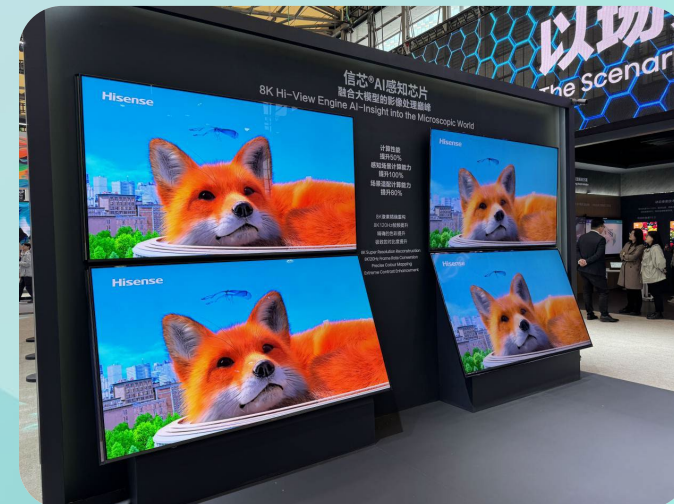


Siemens AI-powered UltraOxygen Freshness Cabin Refrigerator offers AI capabilities in terms of sensing and freshness maintenance.



长虹云帆  
全球首个基于大模型的人工智能家电AI平台

Changhong's Wall Art+ TV is equipped with the world's first large model-based smart home appliance AI platform, Changhong Yunfan, enabling AI painting, AI education, and AI health functions at home.



Hisense's Hi-View AI Perceptual Processor, based on large-model-enabled deep learning and extensive data training, offers powerful image processing capabilities for full-chain computation and picture quality adjustment.



Fotile showcased the progression of kitchen appliances from sets to systems. The FOTILE ACS panoramic cooking assistance system employs advanced smart central control, sensing, and connectivity technologies to present the industry's first fully automated cooking solution.



Powered by smart technology, cooking robots can perform culinary tasks more efficiently.



Robam's ROKI digital kitchen appliance sets connect various kitchen appliances into a united network, offering new scenarios through device collaboration. ROKI's built-in 4,000 recipes help beginners master cooking skills and assist enthusiasts in creating and sharing their own digital recipes.



## Trend 2:

Sustainable development is the inevitable path for industry growth

■ Through resource recycling, home appliance companies are pursuing technological innovation in a sustainable, comprehensive manner.

In the wake of globalization, sustainable development has become a common focus worldwide. As a key trend for technological innovation in home appliances and consumer electronics, sustainable development acts as a catalyst for transforming the industry and upgrading the industrial chain across the board.



↑ Haier Smart Home introduced its ESG achievements with a giant display, showcasing its closed-loop "recycle-disassemble-regenerate-reuse" system. It also presented the recycling of dismantled home appliances, particularly the challenging application of recycled plastics in home appliances and other consumer electronics.

← Samsung Electronics presented its roadmap for recycling materials by 2050, demonstrating its efforts to protect the environment through sustainable technology.

## Trend 2:

■ With integrated smart energy management solutions, consumers embrace a zero-carbon lifestyle with residential PV, energy storage, and scenario-based applications.



↑ Brands like Haier, Hisense, Gree, TCL, and Skyworth showcased integrated smart energy management solutions featuring residential PV, energy storage systems, and scenario-based terminal applications, delivering a low-carbon lifestyle to consumers.

■ Natural refrigerants are more widely used in heat pump systems and ultra-low temperature refrigerators and freezers.



↑ Highly's CO<sub>2</sub> compressor; TCL's R290 residential heat pump; Aucma's -40°C refrigerator featuring a mixed refrigerant of R290 and R600a.



## Trend 2:

### ■ Progress in energy-saving technologies driven by AI.

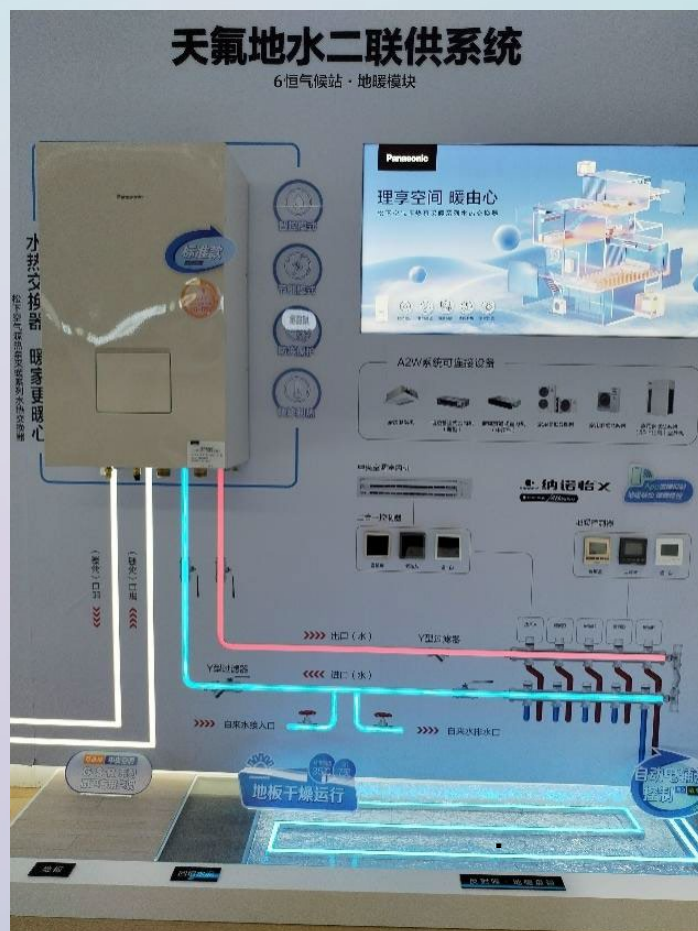
Energy-saving technologies are empowered by AI across the board. AI intelligently optimizes compressor parameters such as operating frequency and defrost cycle based on metrics such as temperature, use frequency, and user habits, allowing refrigerators and air conditioners to become even more energy efficient.



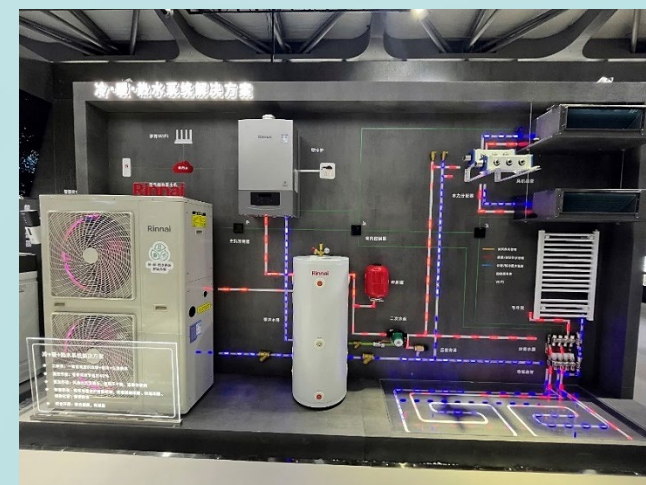
↑ TCL Freshin P7 with more efficient operations powered by AI

↓ AI-powered Samsung refrigerators with improved energy efficiency





Panasonic's air-source heat pump heating system integrating the dual heat supply of air-conditioning and ground heating features six constant climate stations and ground heating modules. The product offers six functions: temperature control, humidity, oxygen, cleanliness, silent heating, and airflow heating. It also features dual sterilization with nanoe and hypochlorous acid, high-efficiency heat exchange through the dual-source rapid heating microchannel, and remote APP control.



Rinnai combined heat pumps with gas boilers to offer an integrated heating and hot water system.



Low-carbon living: Hisense's zero-carbon smart energy management solution for residential housing



## Trend 3:

AWE2024 provides a clear answer to what happens when health meets AI. Healthy lifestyles emerge when the AI-powered smart home ecosystem is combined with health-related concepts and functions, as well as more convenient health management methods.

At AWE2024, the enthusiasm for technological innovation around "health" remains strong across different categories, covering refrigerators that create internal environments with freshness and health functions; washing machines that achieve optimal sterilization through a diverse technology portfolio; air conditioners that ensure clean, comfortable air throughout the living space; eye-friendly consumer electronics with screen resolution reaching the limit of human vision; kitchen appliances promoting healthy cooking environments with multidimensional and complementary functions; and bathroom appliances that offer skin-friendly sterilization. At AWE2024, products across all categories are embracing a health upgrade.

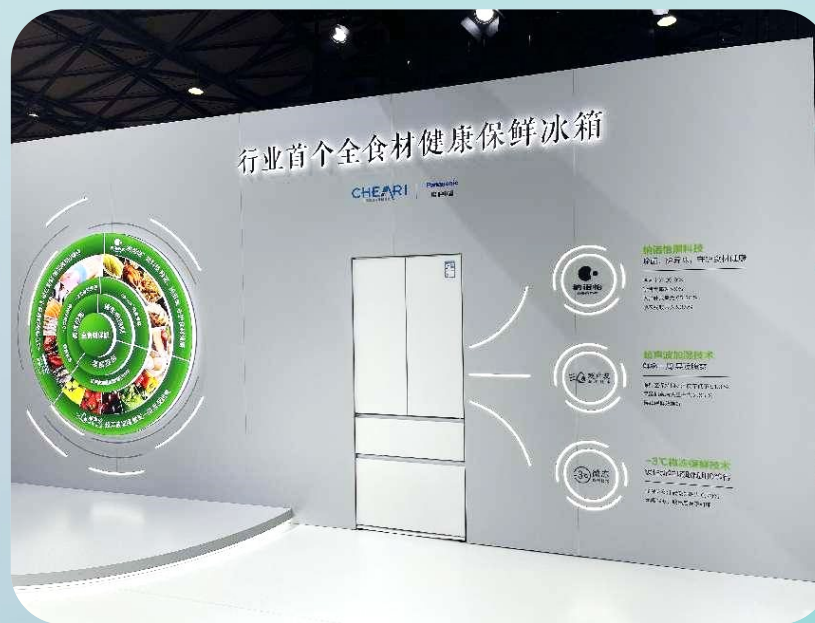


← SUPOR's kitchen appliances, powered by the Cloud Cooking platform, can create family-based healthy meal plans. Its mom & baby care products incorporate child-rearing knowledge and growth records.

## Trend 3:

In their transition to home health management systems, individual health products, empowered by AI and smart controls, have taken a huge step forward.

In particular, in exercise scenarios directly related to the health status of family members, smart fitness equipment can now interact with wearable devices such as smartwatches and health monitoring equipment, as they break down barriers between devices and create an integrated health management environment at home by connecting all fitness devices available.



← Panasonic's all-ingredient healthy & fresh refrigerator embraces integrated technologies to offer comprehensive health functions across all compartments

→ Huawei's sports and health scenarios feature interlinked products such as smartwatches, smart TVs, and smart fitness equipment, providing three smart scenarios involving fitness, health monitoring, and health care







Hitachi's latest washer-dryer integrates health technologies like UV sterilization and steam sterilization programs



Robam's smart regulation and management solution for cooking fumes



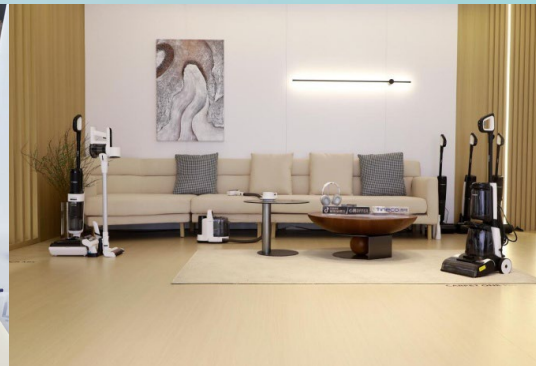
Vatti's 6210HS new-oxygen slim range hood integrates a fresh air main unit with an all-new air management system to monitor and reduce kitchen PM2.5 in real time. The negative ion filtration system effectively kills harmful bacteria in the air, reducing the impact of fumes on respiratory and skin health





A. O. Smith's gas-powered water-softening heater features a built-in water softening system where the water undergoes softening before heating. This approach effectively prevents limescale buildup in shower heads and offers users a better experience of the upgrade to fine shower sprays, ensuring a more comfortable shower experience.

At AWE2024, many cleaning appliances featured integrated solutions through innovative designs to enhance performance and meet the needs to clean floors, walls, and hard and soft furnishings. They aim to deliver whole-house cleaning with a single machine. Key solutions include various combinations of nozzles and accessories for integrated functionalities such as vacuuming, floor washing, and mite removal, as well as all-in-one bases that combine multiple functionalities.



LEXY Sirius; Ecovacs Deebot X2 COMBO; Tineco "Stretch Mix" series; INXNI Z5 Pro 5-in-1 Floor Washer; Ezviz Smart Sweeping and Mopping Robot RS20 Pro; Narwal Smart Floor Mop Washers S1 and S1Max; Dreame H30 Ultra Floor WasherH30 Ultra



AWE2024 showcased a range of innovative beauty and personal care products, attracting many health-conscious attendees. These include beauty devices that combine visual aesthetics with performance, high-speed hair dryers backed by advanced hair care technology, enhanced oral healthcare products such as electric toothbrushes and oral irrigators, smart shavers, and state-of-the-art massage chairs.



Laifen's mini high-speed hair dryer; usmile's electric toothbrush Y10 PRO MAX; Roaman Traveler electric toothbrush; PROORAL's electric oral irrigator; Panasonic's EH-SP60 beauty instrument; ShowSee's F605 smart sensing shaver; Flyco's portable shaver; Softide's smart bed; Milly's smart bed

## Trend 4:

### New integration trends: The art of the integration of home appliances and furnishing

Integrated appliances have emerged as a key trend in a new era of consumption. They bring appliances closer to home furnishing, delivering more satisfying living experiences. This trend is evident across individual products, product series, and home decor solutions showcased at AWE2024.

→ Panasonic's fully integrated refrigerator



← Casarte's embedded refrigerator addresses issues in integrated design such as dimension mismatches between appliances and cabinets. With upgraded bottom-front heat dissipation and temperature control, the refrigerator perfectly matches international standard cabinets, achieving zero gaps on the sides and seamless front alignment.



**A.O. SMITH**  
AI-LINK 健康好风卧室

智慧恒静 | 宁静清新 整夜安睡

A.O. SMITH 智慧中央空调通过多种传感器实时监测空气质量，自动调节设备，创造整夜好眠

大风量大风速，告别闷热，新风满屋

新风系统送风，不携带花粉，整夜安睡不惊醒

智能定时二重过滤，新风导入，富氧充盈，营造舒适睡眠环境

智能调速，一键进入睡眠，保障入住健康

静音模式开启，满足不可入眠睡眠品质所需

健康舒适技术指标	
恒温	夏季: 24℃~28℃ 冬季18℃~22℃ 温度梯度: 顶地水平温差≤2℃ 房间风速: 夏季≤0.3 m/s 冬季≤0.2 m/s
恒湿	夏季40%~65% 冬季30%~60%
恒氧	CO <sub>2</sub> 浓度≤1000 ppm
恒洁	PM <sub>2.5</sub> 浓度≤35 ug/m <sup>3</sup> 甲醛浓度≤0.08 mg/m <sup>3</sup> TVOC浓度≤0.6 mg/m <sup>3</sup>
恒静	客餐厅≤40 dB 卧室≤30 dB (夜间)

\*技术要求及检测方法见GB/T18883

健康好风 健康好水 一屏掌控 轻松交互

全屋设备一屏掌控，模块化分层设计，操控好简单

全屋设备自控，交互真轻松（规划中）

空气质量和全屋水质实时精确数据，健康看得见

↑ A. O. Smith's high-end smart one-stop connected solution for optimal air and water



↑ Bosch's White Kitchen suite



↑ Sanyiniao's one-stop home renewal solution

## Trend 4:

Home appliances and furnishings are integrated during renovation. Today, manufacturers are merging resources to solve issues of style alignment, spatial arrangement, and functional connectivity between traditional appliances and furnishings. They are offering one-stop services that seamlessly blend appliances into home environments.





Fotile's high-end kitchen appliances, based on the three scenarios of cooking, ingredient washing, and storage, are designed and installed as a single unit, providing a smart, healthy kitchen experience, a visually pleasing cooking space, and an elegant, fulfilling life.



LG's clothing care solution



Gorenje and ASKO's integrated wash-dry-care machine



# Trend 5:

## People-vehicle-home connectivity: A new era of smart travel

As the concept of a people-vehicle-home ecosystem deepens, a growing number of home appliance companies are entering the NEV field. Against this backdrop, in addition to home appliances and consumer electronics, AWE2024 also exhibited cars, components, and a range of automotive electronics, expanding industry boundaries and offering new insights into smart travel.



← Harmony Intelligent Mobility Alliance (HIMA), Huawei's latest attempt at smart travel, brings together key technologies including smart driving, smart cockpits, and smart control. Together with industry partners, HIMA is building an open, shared, and more satisfying smart travel experience for users. Backed by HIMA's strong connectivity, AITO M9 showcases the fusion of smart homes and smart cars, presenting the interconnected people-home-vehicle lifestyle. At AWE2024, models like Huawei AITO M5, AITO New M7, and LUXEED S7 were on display.





← Huawei also demonstrated phone-vehicle interaction capabilities: Huawei phones can replace car keys and display seamless integration between phone and car systems, including multi-screen interaction, NFC navigation, and cross-device app communication.



← Skyworth introduced its new SKYHOME model and the upgraded SKYLINK smart car system, turning health-focused driving into a new lifestyle.

## Trend 5:

In the automotive sector, NEVs were the primary focus at AWE2024. Companies like Huawei, Skyworth, and Geely showcased their new models. Key exhibits also included automotive components and solutions, such as GMCC's car compressors, Hisense's automotive display solutions, TCL CSOT's in-car displays, Huawei's smart automotive control solutions, and Skyworth's smart automotive control systems. Many brands, including Haier, Goldfish, HCK, and Vanhe, presented in-car products like air conditioners, refrigerators, and water heaters.

→ Hisense showcased its laser holographic AR-HUD and laser panoramic projection solutions, demonstrating the potential of laser display in automotive applications.



→ PC Online presented the Geely Galaxy E8, featuring a 45-inch 8K boundaryless smart screen and a Qualcomm Snapdragon 8295 flagship cockpit chip.





→ TCL CSOT brought an integrated auto display composed of a 12.3-inch instrument screen and a 35.6-inch central control screen.



LG's StanbyMe Go TV extended its application to outdoor scenarios, with a unique all-in-one design combining the body and case. The set is also equipped with a battery for outdoor use.



## Trend 5:

With autonomous driving, JD.com showcased an unmanned smart delivery vehicle. Through cross-sectoral collaboration with the Ferrari team, Homa presented a Ferrari at the center of its booth, emphasizing sports car elements.

→ JD.com showcased an unmanned smart delivery vehicle, integrating ten key technologies, including high-precision positioning, integrated perception, behavior prediction, simulation, and smart networking, achieving L4 autonomous driving.



→ Through cross-sectoral collaboration with the Ferrari team, Homa presented a Ferrari at the center of their booth, emphasizing sports car elements.



# Trend 6:

## The silver economy: New opportunities in health and wellness

■ Traditional home appliances are moving faster to embrace elderly-oriented designs

■ Companies are speeding up the development of wellness solutions

AWE2024 showed us that in the consumer goods sector, a range of scenarios have emerged centering on the daily life and rehabilitation/care of the elderly. Traditional home appliances and consumer electronics continue to become more elderly-oriented, with improved wellness functions and supplies. This trend has given rise to elderly care products tailored to specific wellness demands.

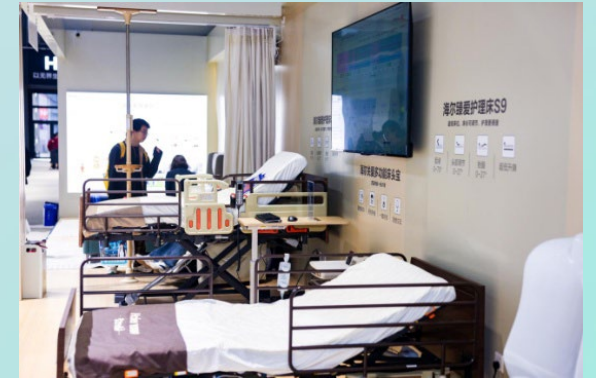
Today, four trends have emerged in the development of elderly-oriented home appliances:



← Haier's smart wellness bathroom allows elderly users to independently use the toilet with an assisted toilet riser, enjoy constant-temperature baths with a voice-activated shower, and reduce movement on slippery floors with a sliding vanity.



← Gree's elder air conditioner features a remote control tailored for the elderly, with a large screen, simplified large buttons, and voice command feedback for ease of use.



↑ Haier's wellness solutions cover all aspects of our daily lives, including bathing, toileting, sleeping, travel, and health.



↑ Panasonic's wellness products focus on cleaning assistance, mobility assistance, sleep assistance, and health assistance, offering smart bathrooms, electric wheelchairs, and smart beds.



## Trend 6:



■ Health care and vital signs monitoring products are gaining traction

↑ Haier's vital signs monitoring solutions include smartwatches and blood pressure monitors.

→ Panasonic's compact medical oxygen concentrator provides highly concentrated oxygen output with a noise-reducing design.



■ Smart fall prevention technology is becoming more mature



↑ Huawei's AI wellness experience hub offers comprehensive care, including AI-assisted sensors for fall detection in bathrooms, prolonged stay detection, fall prevention in bedrooms, night-time bed departure detection, and prolonged bed stay detection.

# ***Trend 7:***

## Customized living driven by emotional resonance and personalized experiences

The home represents people's aspiration to improve their quality of life. Companies are making products that speak to consumers' hearts through unique designs, diverse color choices, and smart interactions, providing the emotional value that consumers seek at home.

With the rise of **Gen-Z** consumers, the demand for home appliances and consumer electronics has transcended mere functionality and practicality, focusing more on the emotional value and personalized experiences brought by products and brands.

As **smart homes** become more prevalent, businesses are offering not only products but also diverse, personalized, and customized scenario-based solutions to different consumer groups, delivering smarter, greener, and higher-quality lifestyles.

**Beyond indoor settings**, home appliances and consumer electronics are now making a difference outdoors. At AWE2024, many companies showcased their outdoor products and solutions, such as outdoor electric cookers, BBQ grills, coffee machines, projectors, TVs, fans, and portable power stations. These products cover key scenarios like cooking, entertainment, and energy use, providing a more comfortable, convenient, and quality outdoor camping experience.



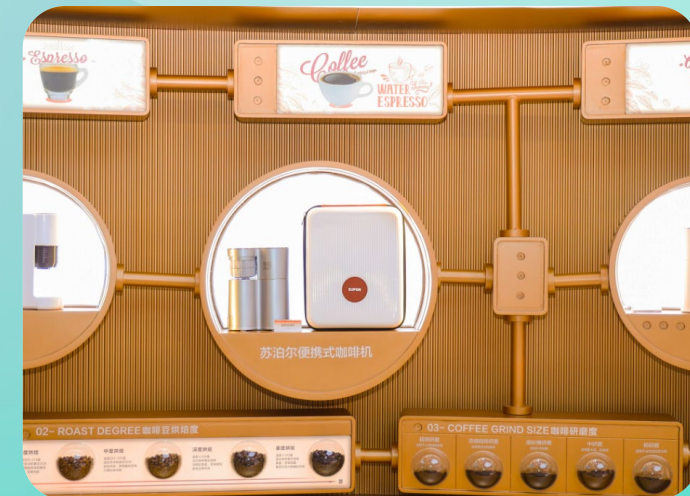
## Trend 7:



↑ Leader focuses on scenarios that resonate most with young people, including anime, camping, fitness, and gaming.



↑ Tmall's themed exhibition "Discover a New World" invited attendees on a RooMtour to explore new living trends like smart lazy home, slow-wave sleep, flowing home, invisible big items, and stylish home.



↓ Supor's portable coffee machine features a mini body that's easy to carry, capable of making 30 cups of coffee on a full charge, and perfect for use in the office as well as camping and traveling.



Small kitchen appliances, such as juicers, food processors, and blenders, demonstrated their quiet operation at AWE2024.



Philips' versatile air fryer boasts an extraordinary 8.3L capacity and claims to master 22 cooking methods, earning it the title of Master Chef.



NORITZ's orange-colored three-burner stove with enamel pot steamer and oven combo meets the daily cooking needs of a family of three.



For coffee enthusiasts, the semi-automatic coffee machine offers personalized coffee, providing the joy of handcrafting your brew.



## Trend 8:

### New aesthetics: The future perspective of home appliance design

At AWE2024, we saw that the understanding of "aesthetics" in home appliance design has reached an unprecedented height. There are breakthroughs not only in CMF design and realization but also in the aesthetics regarding the use cases of various appliances. Brands chose to focus on harmonizing appliance aesthetics with the broader, more complex challenge of enhancing overall home environments.

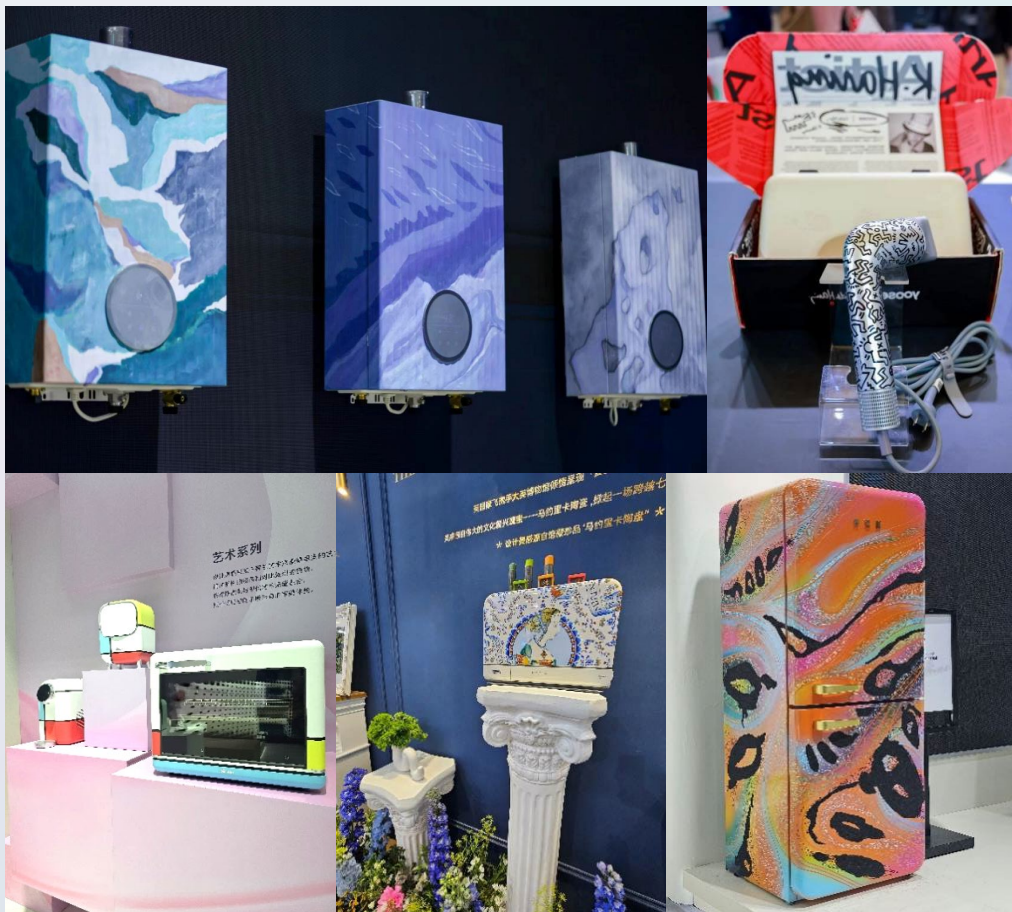


### ■Trendy color schemes





## ***Trend 8:***



■ Adding an artistic touch with pattern design



■ More elegant, varied textures



## ***Trend 8:***



- Choices between hidden and visible designs



- Emotions expressed through motion and motionlessness designs



Trendy, personalized outdoor units of Hisense's Brilliance home central air conditioning system.



Aesthetic stoves showcased by Vatti, Whirlpool, and Panasonic



## Trend 8:

■ Artistic design highlights the changes in performance and functionality through a new product appearance

More companies are using artistic design to reflect changes in performance and functionality through a new product appearance. The vivid, engaging designs with strong technological vibe send a clear visual message to users.



← Gree's innovative wind guide design for air conditioners



← LG presents air conditioners with a new outlet design



← Fresh air function with visible design

# ***Afterword***

This is the second AWE Report on Industry Trends from the AWE Committee. After AWE2023, we released the AWE Report on Industry Trends titled Empowering Life with Technology: A User-centric Path to Innovation & Progress. Our report summarized ten industry trends, including smart daily applications, the return to core product value, digital life, green lifestyles, the shift from suites to scenario-specific applications, health, user groups, the penetration of smart applications into all fields, integration, and design. The report was well-received by the industry, which boosted our confidence and determination to continue this release for AWE2024. Unlike in 2023, the 2024 report not only lists eight industry trends but also highlights trends in key sectors such as washing machines, refrigerators, air conditioners, consumer electronics, kitchen appliances, cleaning appliances, bathroom appliances, beauty and health appliances, and upstream industry chains, for the readers' benefit.



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