



CES 2023

HIGHLIGHTS & INSIGHTS FROM THE GARAGE GROUP

JANUARY 2023



***“Tinkering in the garage,
that’s where you’ll always
find innovation.”***

Shawn DuBravac, Chief Economist, IPC

CES 2023 garnered attention with launches/glimpses into the future across broad spaces, which include:

- **Accessibility** - product launches (such as a wheelchair that navigates stairs or an adaptive beauty device to aid in the application of lipstick) aid users in the areas of mobility and access to activities/movements previously not possible
- **Passenger-Centric Automotive Experiences** - in-car, cloud-based gaming, and people movers which are inclusive, on-demand, and respect privacy are paving the way for the autonomous vehicles of the future
- **Biometrics** - devices and apps which utilize sensors that recognize a consumer's eyes, fingerprints, canine nose prints, and other unique personal characteristics to unlock access
- **Emotive** - appliances, cars, and robots which openly express emotions via sounds, expressions, colors, and even wagging tails
- **Gesture controls** - touchless interactions are becoming normalized as remotes and buttons give way to gestures to control TVs and other devices
- **Viability** - sustainability of resources is becoming table stakes



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CES 2023 is the global stage for innovation

Website

JOBS TO BE DONE

Regardless of category, TGG identified 3 macro Jobs to be Done, solved for by new, innovative solutions:

1

Job to be Done #1:

HELP ME HELP MYSELF BE MY BEST SELF

Description: Building on the Job of “Help Me, Help Myself” we identified last year from CES 2022, consumers are seeking ways to take control of their holistic selves

2

Job to be Done #2:

GIVE ME WAYS TO EXPERIENCE MORE USING FEWER RESOURCES

Description: This Job encompasses responsible stewardship of resources: personal, global, physical, and more

3

Job to be Done #3:

GIVE ME IMMEDIATE ACCESS TO INFORMATION SO I CAN MAKE TIMELY, IMPACTFUL DECISIONS

Description: Consumers accustomed to 24/7 access and information realize the value of data to inform decisions in every aspect of their daily lives

TREND THROUGH-LINES

Regardless of Job to be Done, TGG tracked the following trend patterns across all new solutions...

Aesthetic Design + Functionality

Versatile (Modular, Formable, Portable)

Uber Personalization

HIGHLIGHTS

JOBS TO BE DONE

...and Highlights that Solve for each Job in Divergent Ways

Job to be Done #1

**HELP ME HELP MYSELF
BE MY BEST SELF**



Aesthetic Design + Functionality

Uber Personalization

EVIE

Designed specifically for women, Evie is beautifully crafted, smart, and comfortable to wear. It provides wearers with medical grade health data that's translated into personalized insights delivered through a mobile app.

No subscription is required; and should Evie receive the FDA approval its maker is seeking, it would be the first wearable to double as a medical device.

- App combines ring data with algorithms to deliver actionable, personalized insights
- Helps wearers understand the “whys” behind their daily and long term health journey

NOURISHED x Neutrogena Skin360®

SKINSTACKS

SKIN NUTRIENT GUMMIES

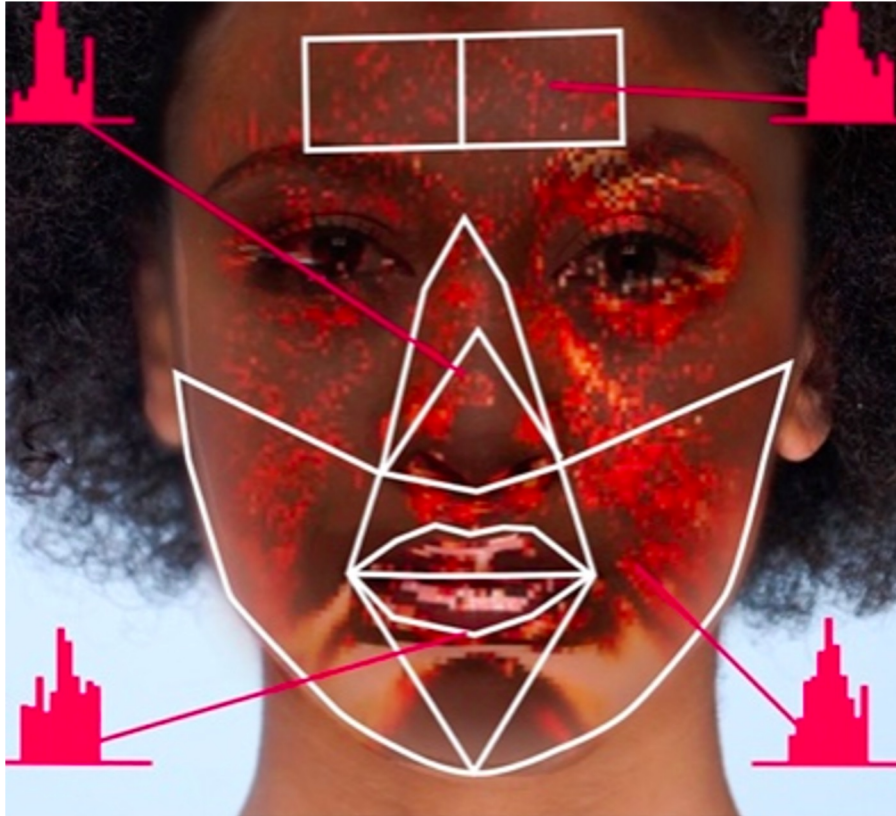


Uber Personalization

SKINSTACKS

These 3D printed gummies for skin health are a part of a collaboration between Neutrogena and supplement maker Nourished. The beauty brand's Skin360 app and SkinScanner mobile attachment enable users to take and upload a 180-degree selfie. Consumers also answer a few questions about their skin and goals; and a proprietary algorithm assesses skin health and recommends a custom supplement stack which is printed and shipped to the consumer.

- Current custom stack offerings are intended to become increasingly personalized as the algorithm accumulates input and data

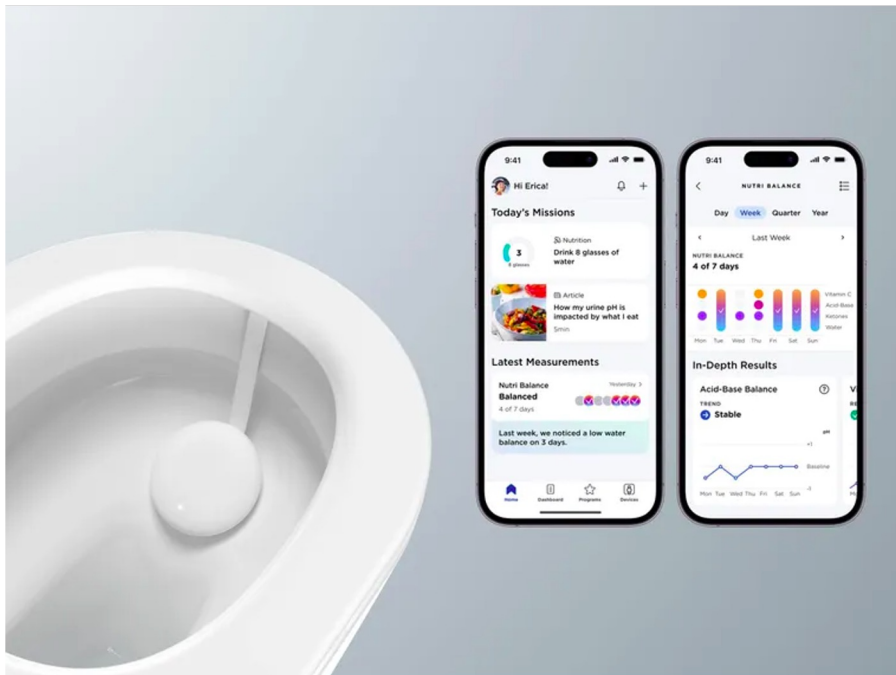


Uber Personalization

ANURA

The Anura app from Nuralogix leverages AI and a selfie to measure a user's heart rate, blood pressure, body mass, skin age, stress level, and more. Anura's tech - dubbed TOI™ for Transdermal Optical Imaging - uses a conventional video camera to extract facial blood flow information from the face to take 30+ medical-grade vital sign measurements.

- Non-invasive and convenient, the results help consumers be proactive in their health journey
- At-home convenience addresses consumer Pain Points with travel, contact, and wait time associated with doctor office visits



U-SCAN

From Withings, U-Scan is the first hands-free, connected home urinalysis solution. A 90 mm sensor sits in any toilet bowl monitors and detects a large variety of biomarkers found in urine. With its immediate snapshot via the integrated mobile app, it offers consumers actionable advice in the name of health and wellness.

- A multiple-times-daily function becomes a health tracker



ACER

The eKinect BD 3 desk bike harnesses and converts the energy generated from a consumer pedaling and delivers it to their devices through USB ports. One hour of constant cycling at 60 revolutions a minute can generate 75 watts of power and an iPhone 14, for example, can be fully charged in 90 minutes.

- Solves for consumer Pain Points around personal wellbeing, and keeping devices and themselves fully charged
- Addresses consumer Pain Points around space restrictions and multiple chargers

Job to be Done #2

**GIVE ME WAYS
TO EXPERIENCE MORE
USING FEWER RESOURCES**



Versatile (Modular, Formable, Portable)

LAYER

From Dracula Technologies, LAYER (Light As Your Energetic Response) is an organic photovoltaic (OPV) solution that generates energy from indoor light and eliminates the need for batteries. LAYER cells are manufactured using a fully digital inkjet printing process; this means cells can be produced in variable shapes, providing designers with a high degree of design freedom.

- Harvesting ambient energy uses fewer resources and reduces energy costs by 4x over battery use
- Design versatility yields functional versatility



Aesthetic Design + Functionality

Versatile (Modular, Formable, Portable)

DISPLACE

Startup Displace has introduced the first wireless TV. It is controlled via gesture, touch, or voice. Four hot-swappable batteries give the TV a month's worth of play before needing to be recharged; WiFi 6E syncs inputs from the separate base unit to the TV; and its Active Loop Vacuum Technology has two adhesive strips that seal the TV onto virtually any surface - even windows - without a mount. Up to 4 TVs may be snapped together to yield a giant display.

- Addresses multiple consumer Pain Points around usability; unsightly wires; space requirements; and more
- Un-tethers TVs and users from a fixed location a la wireless phones



Aesthetic Design + Functionality

MATTER

Introduced at CES 2022, the open source connectivity standard is built around a shared belief that smart home devices should seamlessly integrate with other systems and be secure and reliable. It's designed to fix the issues around fragmented smart home systems so that all devices can be easily set up and routed from one place.

- Amazon, Apple, Google, IKEA, Comcast, Samsung SmartThings, and Kroger are among the original alliance members
- Adoption by both new and existing gadgets and devices is strong at CES 2023



Aesthetic Design + Functionality

Versatile (Modular, Formable, Portable)

VIVE XR ELITE

HTC introduced a highly anticipated new headset designed to handle extended reality (XR) - augmented (AR), virtual (VR), and mixed (MR). It is versatile in design and function, and small in form and price, relevant to competitors with less functionality.

Its sleek modular design makes it easily transformable as well as portable.

- All-in-one functionality eliminates the need for multiple headsets



Aesthetic Design + Functionality

Versatile (Modular, Formable, Portable)

LENOVO

The Yoga Book 9i features two 13.3-inch OLED touch screens, and includes an adaptable keyboard add-on, a kickstand, and a stylus. The stand enables dual-screen operation in both portrait and landscape modes, providing much greater flexibility. And the stylus pen provides for note taking on one screen while viewing an online class or participating in a meeting on the other. The new laptop folds into a compact and easily portable unit.

- Dual screens solve for consumer Pain Points around switching between windows
- Priced as a whole



Aesthetic Design + Functionality

Uber Personalization

JABRA

The brand's Enhance Plus earbuds are touted as being "3-in-1 earbuds" as they feature:

- Hearing enhancement
- Music and audio content listening
- Phone integration

Jabra boasts that its Enhance Plus earbuds have an ultra-compact, super comfortable design; and they also feature 3 dynamic listening modes: Adaptive, Focus, and Surround.

- Personalized to the wearer's unique hearing profile
- Innovative design reduces background noise and improves speech clarity

Job to be Done #3

**GIVE ME IMMEDIATE ACCESS
TO INFORMATION
SO THAT I CAN MAKE TIMELY,
IMPACTFUL DECISIONS**



VIRAWARN

Currently seeking FDA approval, ViraWarn from Opteev Technologies allows users to self test for viruses via an at home breath test that yields results in less than 1 minute.

- Negative results assure consumers of wellness
- Positive results help inform actions to be taken

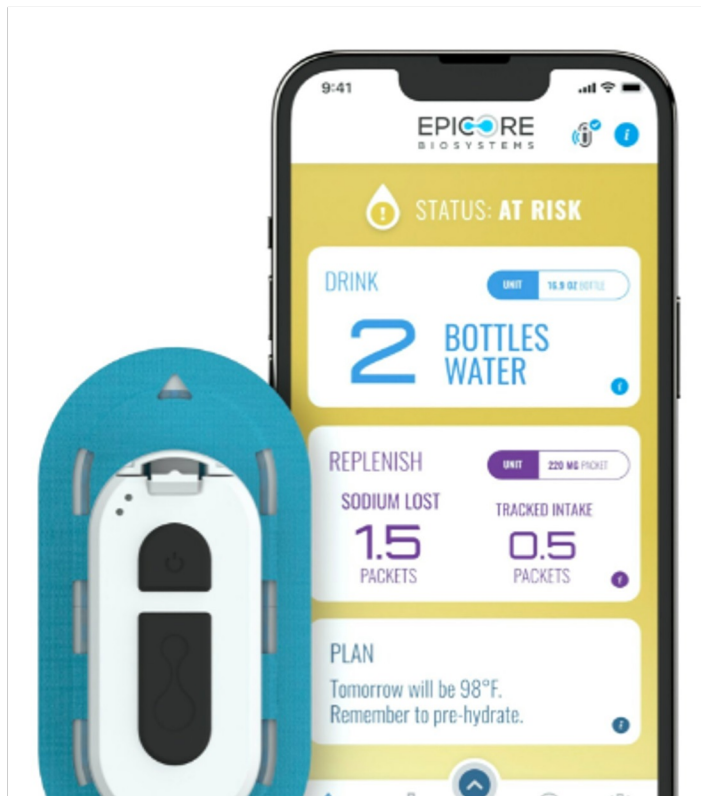
Versatile (Modular, Formable, Portable)



VALENCCELL

The world's first blood pressure monitor to measure blood pressure (BP) from the finger is awaiting both a name and FDA approval. From Valencell, the device uses photoplethysmography (PPG) sensors which eliminate the need for calibration using a cuff. These PPG sensors measure blood flow patterns, and proprietary AI algorithms process flow information with physical characteristics (age, BMI, etc.) to calculate a blood pressure measurement.

- Paired with the mobile app, will simplify how and when people measure and manage hypertension



EPICORE

Connected Hydration from Epicore is the first wearable to continuously measure sweat and electrolyte losses while monitoring skin temperature and movement. The new offering from the makers of the Gatorade Gx sweat patch is designed for those working on the frontlines of labor-intensive industries such as energy, clean tech, construction, and more.

- Real-time notifications alert wearers when their fluid loss exceeds 2% of body weight so they may take action and prevent dehydration



ONETHIRD

OneThird freshness scanners use near-infrared lasers and proprietary algorithms to assess the freshness of produce. The device is able to calculate, for example, the shelf life of an avocado. Applicable across the supply chain journey, the device can scan individual items or a batch and maximize the availability and consumption of fresh produce while helping to eliminate food waste.

- Assesses freshness and predicts shelf life
- Informs decisions made by growers, distributors, retailers, and consumers

Versatile (Modular, Formable, Portable)



Aesthetic Design + Functionality

SAMSUNG

Part of the brand's new Bespoke collection, the AI Wall Oven is equipped with an internal camera and technology that gives consumers visual insight - a shareable livestream - into the food in their oven. The accompanying AI Pro Cooking algorithm recognizes up to 80 dishes and recommends the appropriate temperature, time, and mode for cooking. The app sends notifications to help prevent food from burning. A push-to-open door has a sleek appearance.

- AI camera lets users keep an eye on their food via the screen or the integrated app
- Samsung Health integration helps consumers match health/diet goals with ingredients

HIGHLIGHTS

THE FUN FACTOR

One more, just for fun!



Uber Personalization

DOG-E

Dog-E, from WowWee, is a smart, app-connected robot dog with lifelike movements. Each puppy comes to life in a "minting" process. As users pet and play with it, the robotic canine's specific personality is revealed. Some dogs will always be hungry and others especially playful. Pet parents can train the dog to do tricks, give kisses, and communicate by displaying text and emojis when it wags its tail.

- App-connected robot dog that's unique to each of the people in its life
- Over 1 million possible combinations of emotive lights, sounds ,and personality traits

