

IEEE Consumer Technology Society

CES 2021 Download : Wearable and IoT



Joseph Wei

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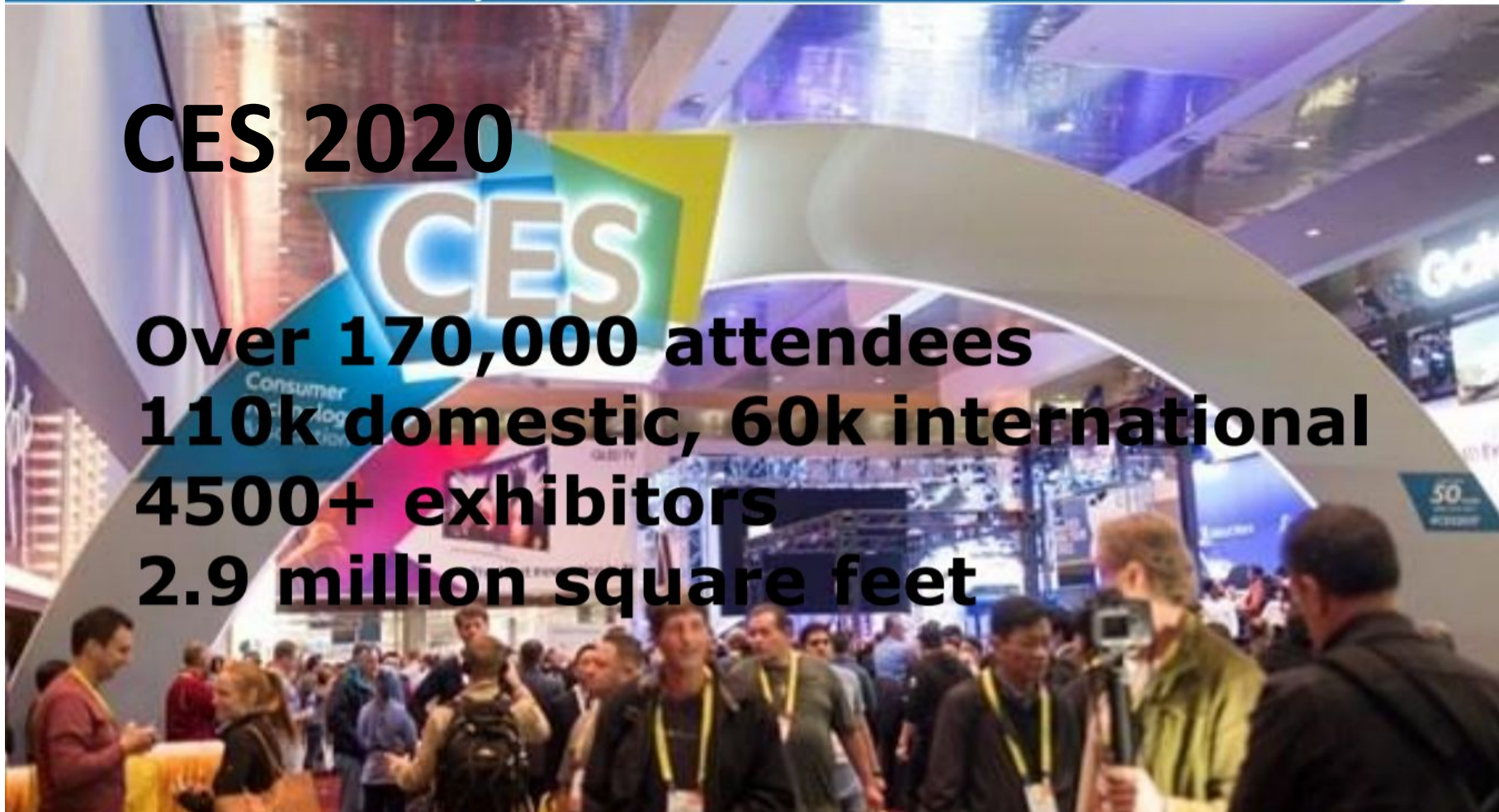


Disclosure

- Companies shown have no business relationships with me at the time the pictures were taken
- Comments made are views of me (Joseph Wei) and do not reflect IEEE or business entities that I am associated with
- These are only selective highlights
- I would be happy to provide a more detail or a custom presentation regarding key trends and upcoming technologies related to consumer electronics, you may email me at joseph.wei@ieee.org

CES 2020

Over 170,000 attendees
110k domestic, 60k international
4500+ exhibitors
2.9 million square feet



Historical Stats with CES

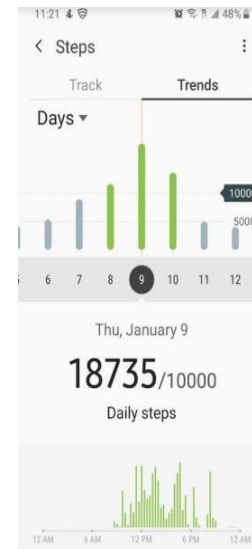
Steps I walked in 2018



Steps I walked in 2019



Steps I walked in 2020



10,000 steps = ~5 miles or 8 km



CES 2021

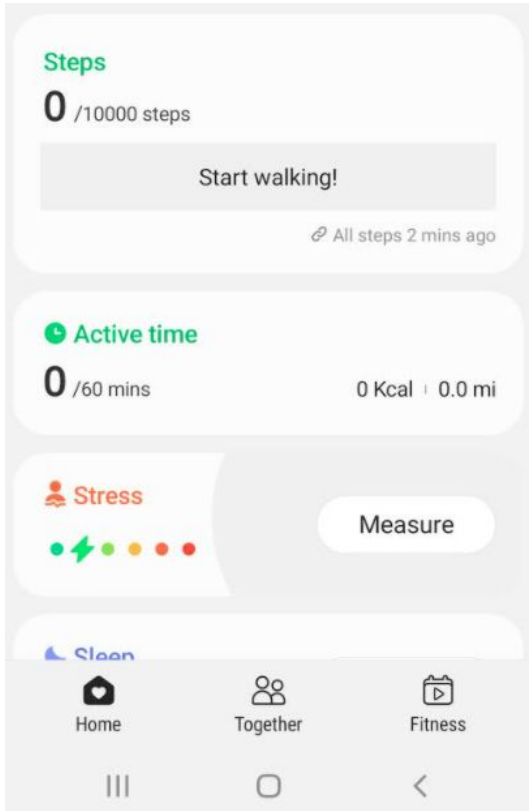
is all-digital

Unofficial:

>100,000 people registered

~1,957 exhibitors

Steps I walked in 2021



Hours of visiting virtual booths in 2021

40+ hours

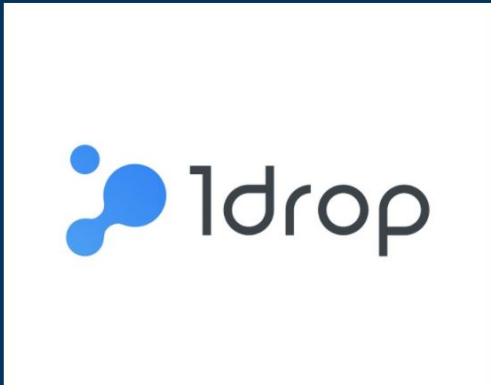


Refine results

Show 96 results

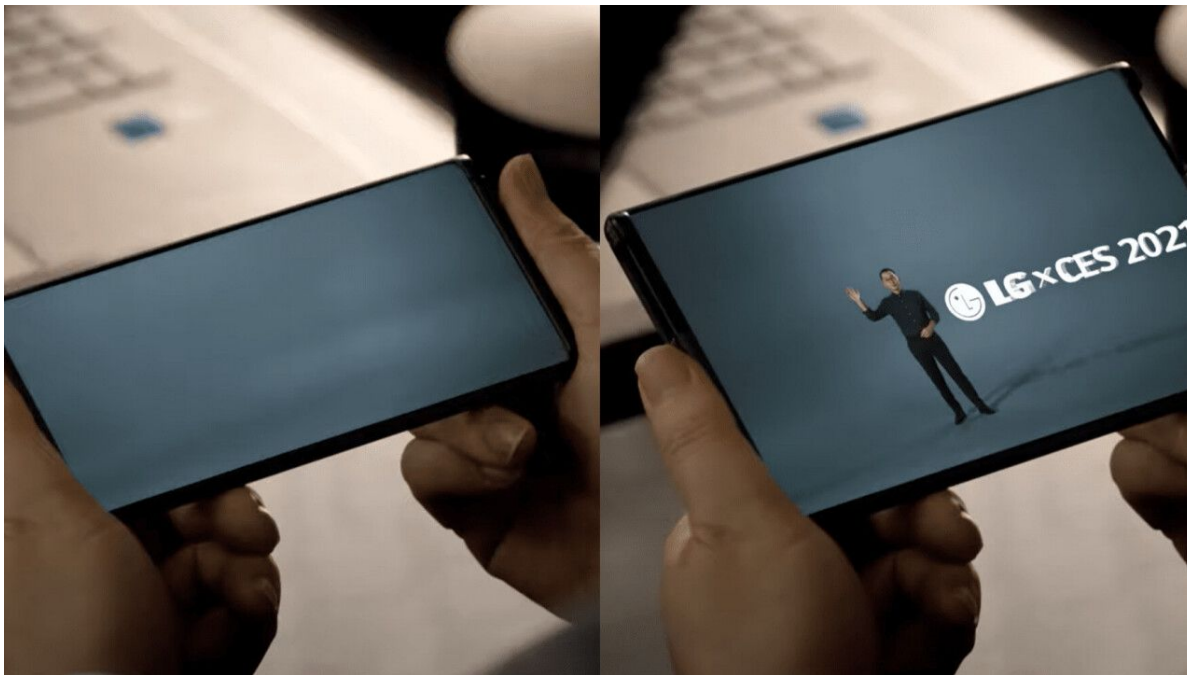
1957 exhibitors A-Z

1 2 3 4 5 >

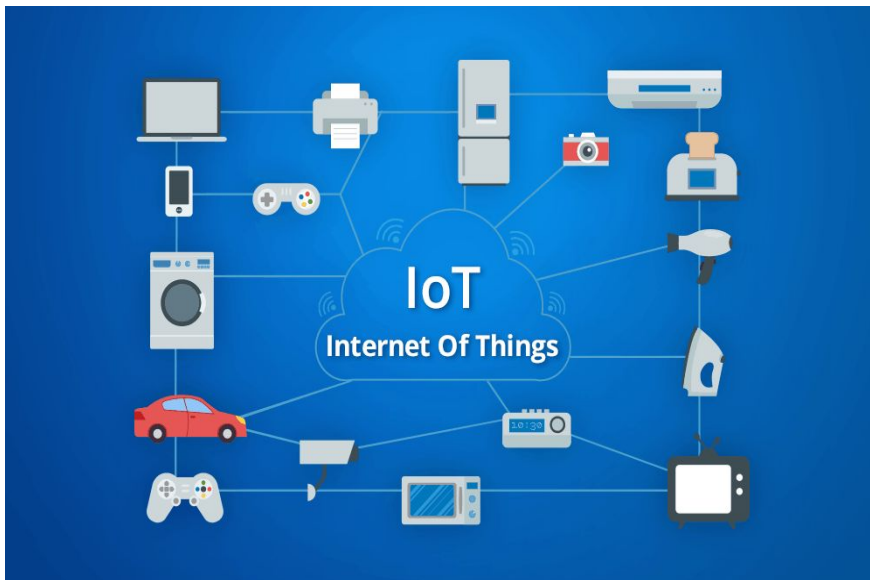




LG Rollable phone



https://www.youtube.com/watch?v=nMA_C8_CRr8



Mudra band with gesture control for Apple watch



- Connected via Bluetooth
- Price: \$179
- <https://www.mudra-band.com/>
- <https://www.youtube.com/watch?v=edJXcigKEPU>



H2-BP, the world's first wearable blood pressure monitor

H2-BP is the wearable blood pressure monitor
It is the smallest and lightest blood pressure monitor in the world

- Inflatable pouch and sensor similar to blood pressure cuff
- <https://h2care.com/>

VUZIX NEXT GENERATION SMART GLASSES



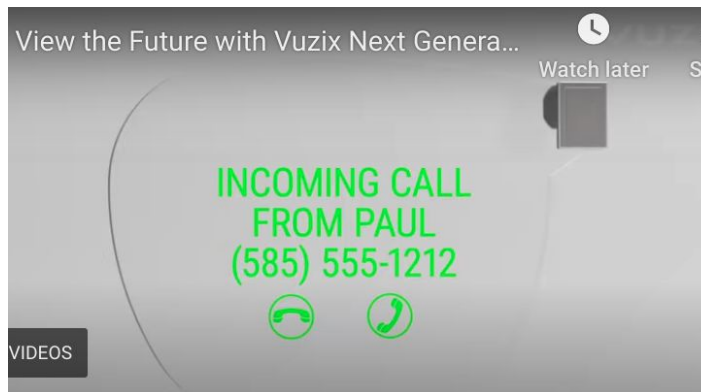
STYLE AND COMFORT

ADVANCED OPTICS

LED DISPLAY

NOISE-CANCELLING
MICROPHONES

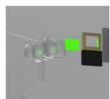
Nasdaq: VUZI



STYLE AND COMFORT

A sleek exterior leads to a tech-rich interior

NEXT GEN SMART GLASSES



VUZIX ADVANCED OPTICS

Ultra-slim, binocular Waveguides powered by a pair of tiny, highly efficient micro-LED projectors



LED DISPLAY AND NOISE-CANCELLING MICROPHONES

Advanced micro-LED displays require extremely low power while providing brilliantly bright images with excellent contrast.



Nasdaq: VUZI

- see-through 3D display powered by small micro-LED display engines
- Bluetooth connection to smartphone

<https://www.vuzix.com/technology/next-gen>

ActiveLook®

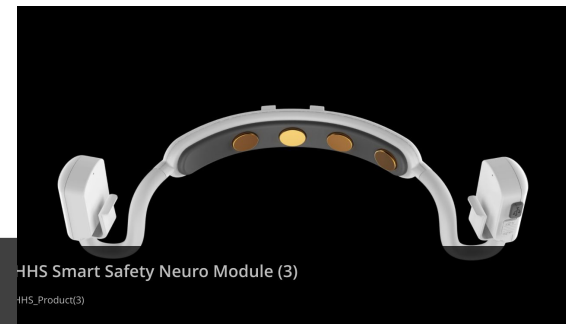
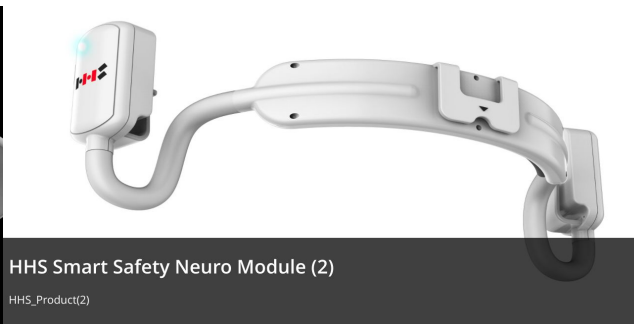
Visual information in action.



<https://www.activelook.net/>

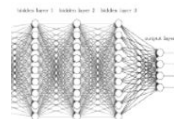


Safety Helmet with EEG Sensing



- AI based Risk management system with EEG sensing
- Monitor workers EEG to prevent accident operating heavy machinery while drowsy, under stress and other conditions
- Can be mounted on many safety helmets

<http://www.hhskorea.com/>



A.I. based EEG Analysis Server System

- AI based brainwaves analysis server



Safety Management Application (for manager)

- Real-time emergency situation alarm (drowsiness, metal fatigue, Seizure)



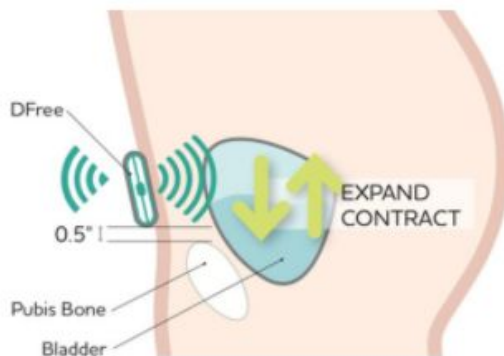
Cove wearable with stress cancelling technology



- **Cove** applies specific gentle vibrations to the skin behind your ears that initiate a natural biological pathway between the skin and the brain. 20 min per day
- Over 4 years of clinical studies and ongoing research with 3500 participants have proven that Cove™ is safe and effective.

<https://www.feelcove.com/>

DFree Wearable device for urinary incontinence



- DFree uses safe and non-invasive ultrasound technology to detect bladder fullness
- DFree sends alerts to your phone or tablet when it is time to go to the bathroom
- Price: \$399.99

ATsens wearable ECG Monitor

11-day Promise

A Single 11-day Test. It's enough.

Now, you can meet a new standard of wearable ECG Monitor.
Uninterrupted Long-term Ambulatory Cardiac Monitor, AT-Patch

Learn More >

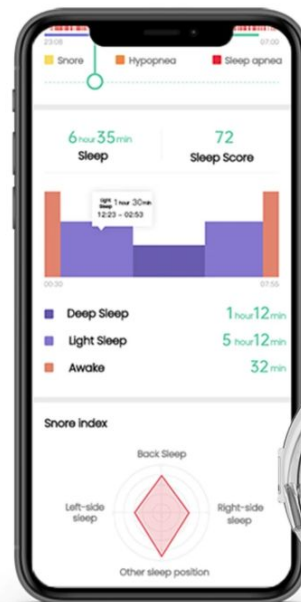


- up to 11-day uninterrupted ambulatory cardiac monitoring
- Shower proof with IP44
- disposable patch-type(1 channel 3 leads)
- Communicate with Smartphone App via Bluetooth
- internal power supply, DC 3V (Li/MnO₂, Type CR2032)
- - Certification of Medical Device Manufacturing in Korea, Rep. [2019.08]
- - Certification of CE Medical Devices Directive, in Europe [2020.04]

<https://www.atsens.com/en/>



Sleepbreathe Sleep Breathing Monitor



INTRODUCING
SLEEPBREATHE

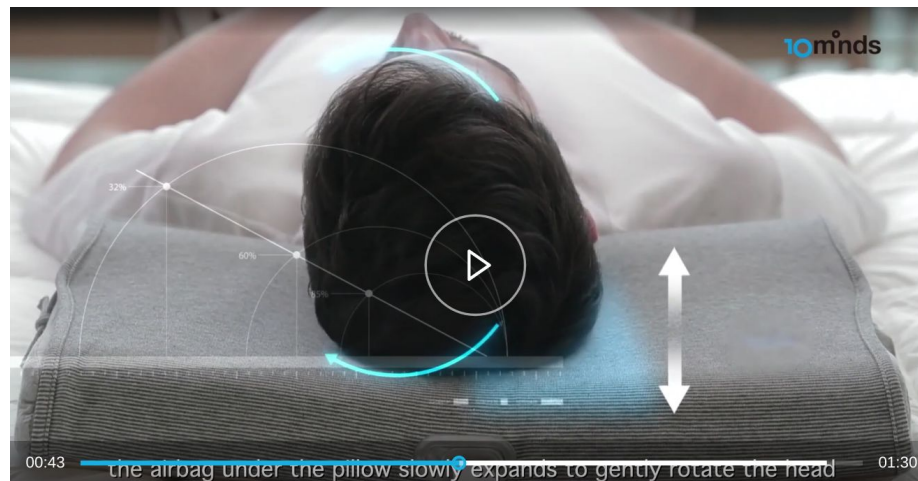


Price: \$149

<https://snorecircle.com/>



Motion Pillow



- Sleep Pressure Monitoring System with control of inflation of 4 separate airbags
- Monitor and track snoring frequency and sound in dB
- Auto inflation of airbag(s) to correct snoring

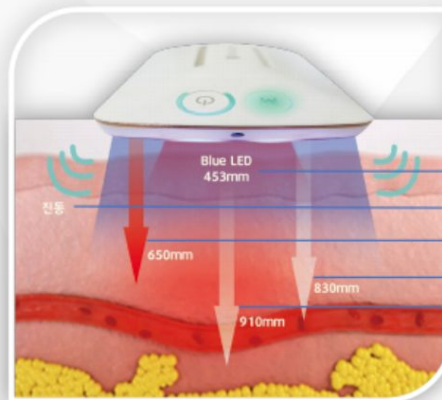
<http://corp.tenminds.com/>

WellsCore



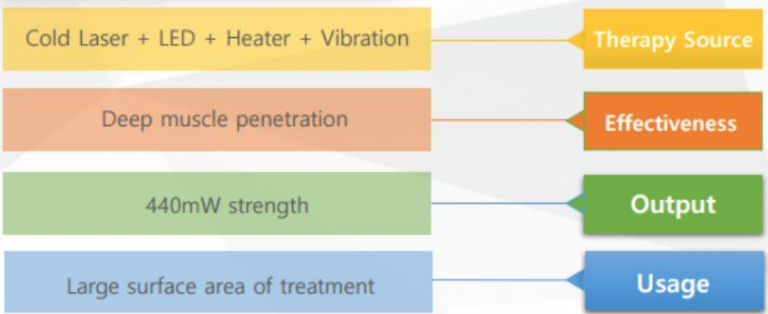
Stop wasting money on hoax massagers

IASO Ultra®



IASO Ultra®

- Increase in blood flow and natural recovery
- Vasodilation and increase in metabolic function
- Cellular regeneration
- Improved blood flow
- Nerve stimulation



- uses low level laser therapy and cold laser treatment to relieve pain areas and for helping you to deal with chronic pain management successfully.

<https://www.wellscare.net/>

Fighting Allergies with Light Therapy

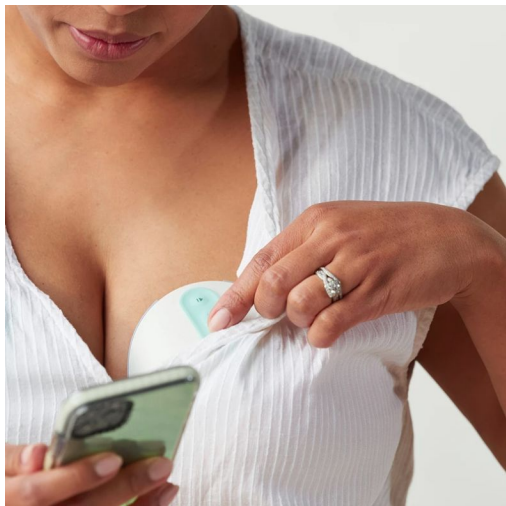


FLUO
labs™

Fluo Labs' breakthrough device uses photobiomodulation to provide fast acting and drug-free relief from hay fever symptoms

- Drug-free
- No known side effects
- Efficacious with rapid relief
- Safe non-thermal LEDs
- Easy & fast to use
- Cost effective

- Uses photobiomodulation
- Non-thermal, near infrared light
- 6 light pulses per nostril
- Reduces inflammation for up to 24 hrs
- Est. price to be <\$100
- <https://www.fluolabs.care/>

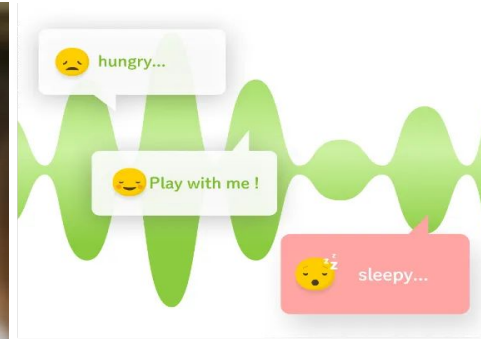


- Free to conduct normal activities while wearing
- Price: \$499
- <https://shop.willowpump.com/>



ainenne

A sleep trainer in the form of a bedside lamp



- Records sleep and crying patterns
- Analyze cry pattern using an algorithm based on studies of cry patterns of 150,000 babies across 150 countries
- Makes recommendations for optimal time to wake up the baby
- The built-in LED lamp increases intensity in an optimal manner, bringing a pleasant awakening

<https://ainenne.com/>

Shower power speaker by Ampere



- it generates 100% of its power from water
- An internal 2,500 mAh battery stores more than 20 hours of power
- Supports Bluetooth
- ~\$100
- <https://www.kickstarter.com/projects/ampere/shower-power-waterproof-bluetooth-speaker-hydropower?ref=discovery&term=ampere>



- Fall prevention
- Prevents dehydration
- Recognizes patterns/habit changes
- Measures air quality
- Detects intrusion
- Reports fire
- \$2,499 with a \$19 a month subscription
- <https://nobi.life/>

KOHLER®

Touchless Bathroom



<https://www.us.kohler.com/us/>

A simple urine test

Bisu Body Coach's microfluidic test stick makes urine testing easy, clean and accurate.



bisu

ABOUT BLOG PODCAST PRODUCT SCIENCE FAQ CONTACT

A simple urine test

Bisu Body Coach's microfluidic test stick makes urine testing easy, clean and accurate.



Biomarkers



Electrolytes



Hydration



Ketones



pH



Uric acid

Tech specs



Spectrometer



ARM Cortex-M4



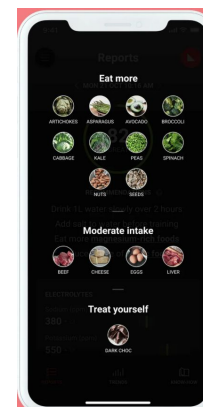
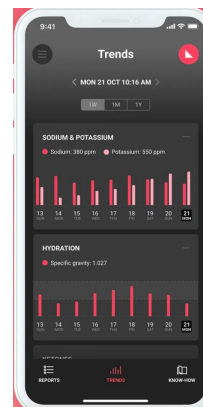
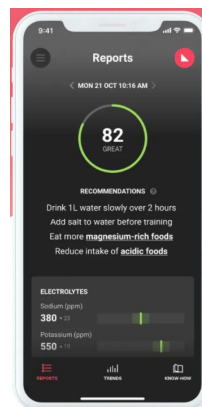
2 minute test



3 months



Bluetooth LE



<https://www.bisu.bio/>

Related Consumer Technology Resources:

- IEEE Consumer Technology Society LinkedIn Group (>15,000 members)
<https://www.linkedin.com/groups/46506/>
- IEEE Startup Special Interest Group
<https://site.ieee.org/scv-yp/startup-sig/>
- Consumer Technology Association (CTA) <https://cta.tech/>
- CTA Foundation <https://www.cta.tech/Who-We-Are/CTA-Foundation>
- AARP Innovation Labs <https://aarpinnovationlabs.org/>
- Technology Ventures Group <https://www.techventures.co/>

תודה
Dankie Gracias
Спасибо شکرًا
Merci Takk
Köszönjük Terima kasih
Grazie Dziękujemy Dékojame
Ďakujeme Vielen Dank Paldies
Kiitos Täname teid 谢谢
Thank You Tak
感謝您 Obrigado Teşekkür Ederiz
감사합니다

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