AI.cube

Safeguarding Every Breath, Empowering Every Life

Smart Air Quality Monitoring for
Inclusive and Resilient Communities

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Unseen Danger, Real Harm

Air quality is getting worse, made even more challenging by climate change. This problem hits the most vulnerable people the hardest.

Who Is At Risk?

Older people, children, factory workers, and those with health issues or limited movement are most affected.

Quiet Dangers

Environmental problems develop slowly, but they lead to serious long-term health issues and community costs.

Missing Information

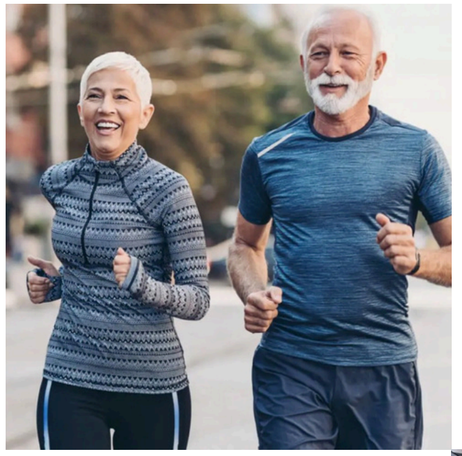
We don't have enough local, real-time data to effectively prevent and respond to these environmental threats.

Why This Maters

Air pollution doesn’t come with a warning.

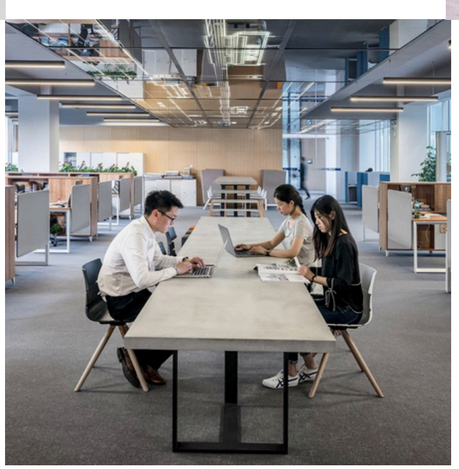
Yet its impact accumulates — silently, relentlessly.

Protecting elderly well-being starts with clean air and real-time environmental monitoring.



Essential for the physical and mental well-being of our elderly.

Making working environment safe



Safeguarding our next generation

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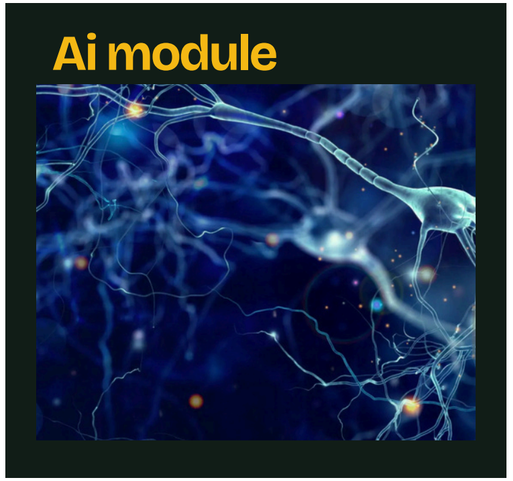
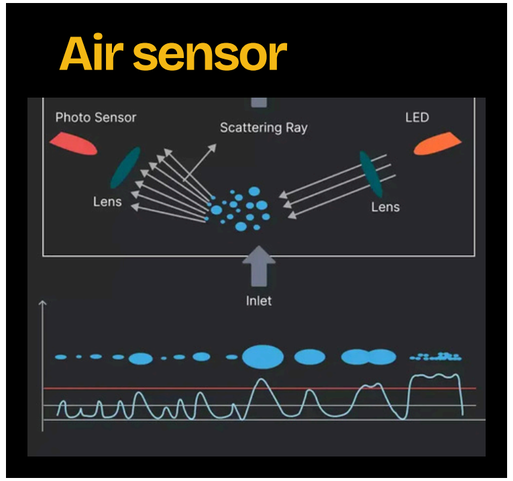
Why is it so Different?

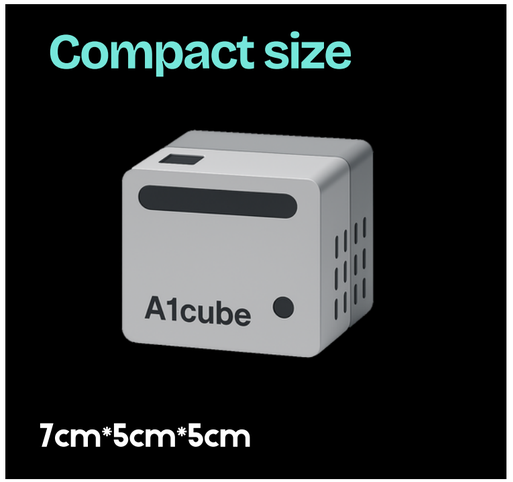
- Operates both online and offline using Edge AI
- Detects air quality, breathing, heart rate, and fall incidents
- Plug-and-play design in care centers, rural schools, industrial dormitories, or family homes
- Enables ESG-focused health monitoring and policy implementation

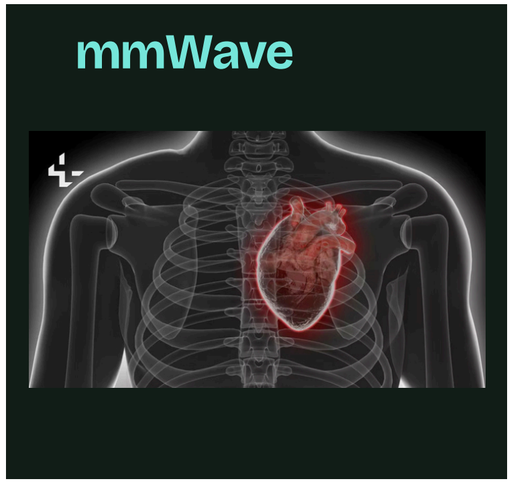
Visualizes the unseen

Not just monitoring data — but analyzing it in real time.









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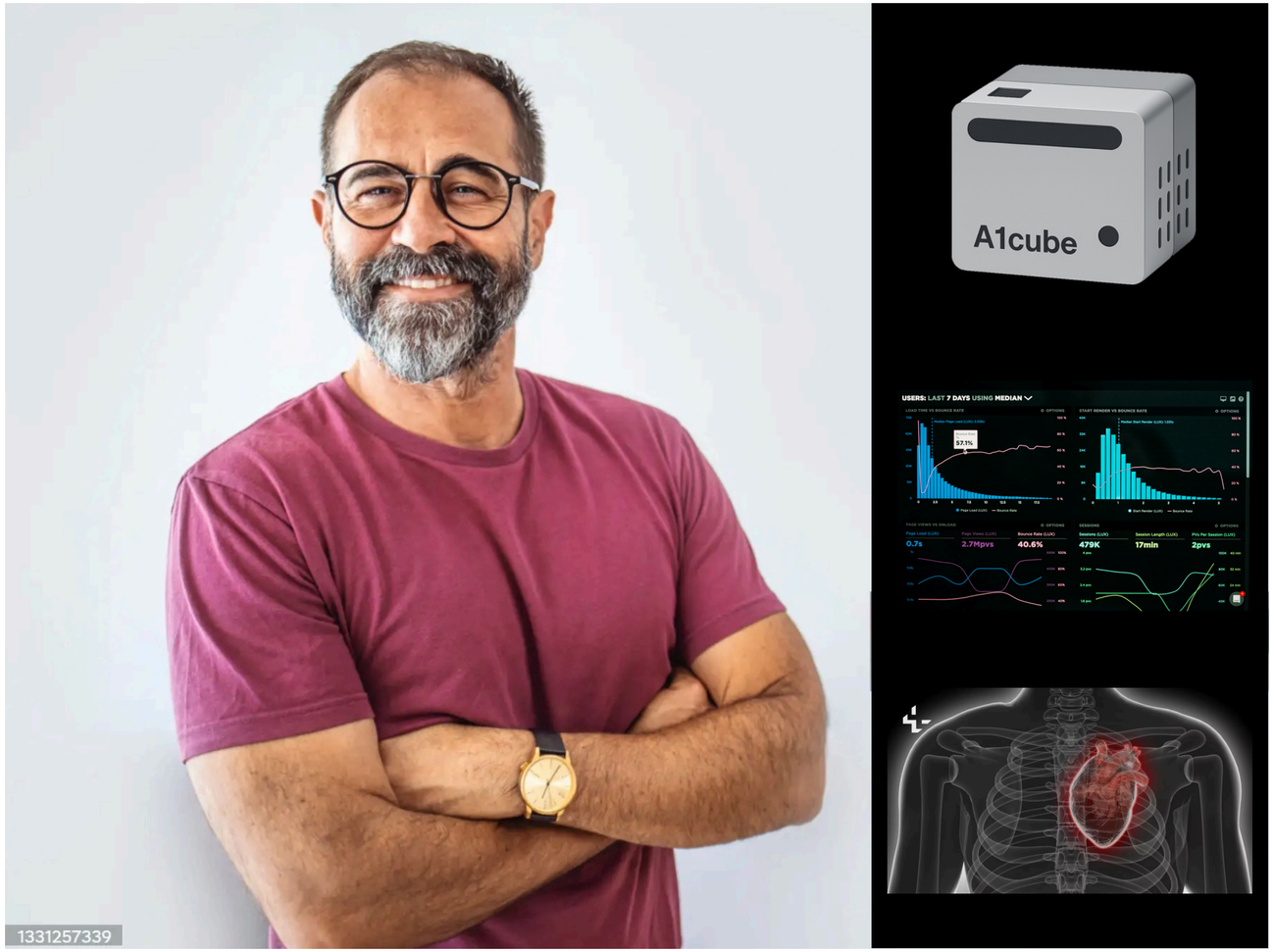
Real-time monitoring air quality and even detects vital signs like breathing, heart rate, and falls.

Privacy First. No Cameras Needed.



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Extension Use

- Smart Buildings:

  Real-time monitoring of PM2.5, CO_2, and TVOC levels with automated control of HVAC and fresh air systems.
- Industrial Safety:

  Detects abnormal gas concentrations or mechanical anomalies and triggers alerts for timely intervention.
- AI Detection:

  Utilizes multi-parameter sensing models — including sound, temperature, humidity, and vibration — to enable intelligent environmental analysis and decision-making.

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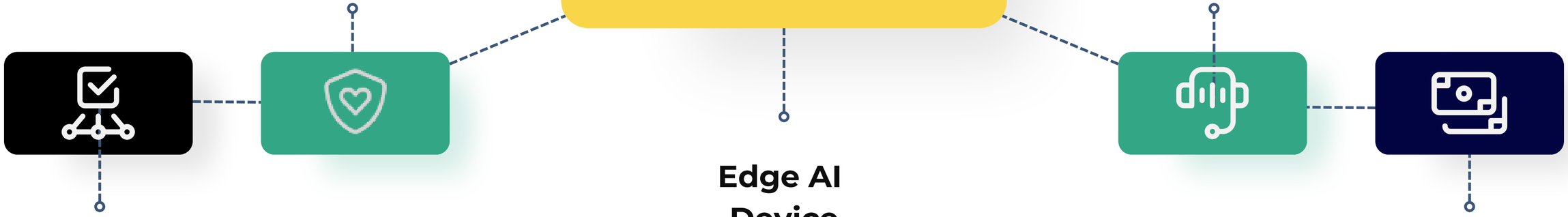
AI.cube for home use

plug-and-play device that empowers consumers to monitor their surroundings anytime, anywhere. It helps create a safer living environment for families by reducing exposure to harmful air.

AI.cube for Commercial

Edge computing architecture and wireless connectivity allow for flexible and scalable deployment across diverse business settings.



AI.cube B2C extension

Open API interface for smart home devices like air filters

Edge AI Device

Powered by mmWave sensing and an Edge AI-enabled MCU, AI.cube runs neural network models locally — with no internet connection required. It detects, analyzes, and responds to environmental data in real time.

AI.cube B2B extension

Scalable for sensor integration, AI.cube can also be embedded directly into factory machinery to monitor operational efficiency and deliver real-time alerts in case of anomalies or potential failures.

AI.cube MILESTONE RECORD

Taiwan national administration Dep. award

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EdgeAI embedded

Market adaption

QUALCOMM

2019 QITC top 10 finalist
2020 Qualcomm Advantage Network-smart city

Qualcomm advantage network

CES INNOVATION AWARDS 2020 HONOREE

CES 2020 award

Smart city

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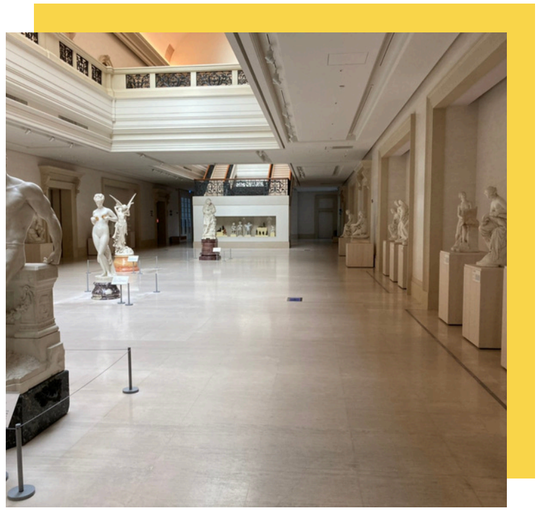
AI.cube footprints

Restoration lab

Restoration processes often involve volatile chemicals. AI.cube provides real-time monitoring of gas concentrations to safeguard both personnel and artifacts.

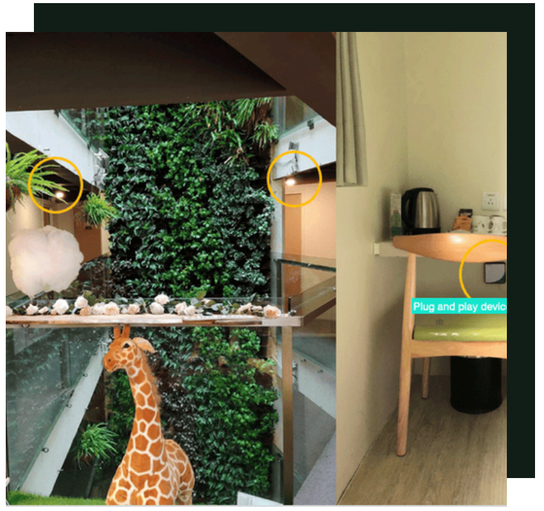


Taiwan Museum

Installed in galleries and exhibition halls, AI.cube continuously monitors temperature and humidity around valuable artifacts to prevent environmental factors from compromising their integrity.

Qualcomm Lab

Soldering activities in laboratories can release hazardous fumes. AI.cube provides real-time monitoring of gas concentrations to protect personnel from potential health risks.



Hotel chain(Green Hotel)

Hotel air quality plays a key role in guest comfort and sleep experience. This project includes AI.cube installation in both public spaces and private rooms. Because AI.cube is a gas-focused, non-visual sensor, it enables precise environmental monitoring without compromising guest privacy.

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ABOUT US

Bryan/ Director

15 years in IOT industry
Led team into NFC forum top 3, and QITC top 10

Kristy/Marketing

China and Vietnam business developer over 10 years.

David/Software Head

Backend and hardware integration

Prof. Chen/Mentor

Doctor Chen is professional in wireless and communication.

NESTECH

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