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FOVIONICS

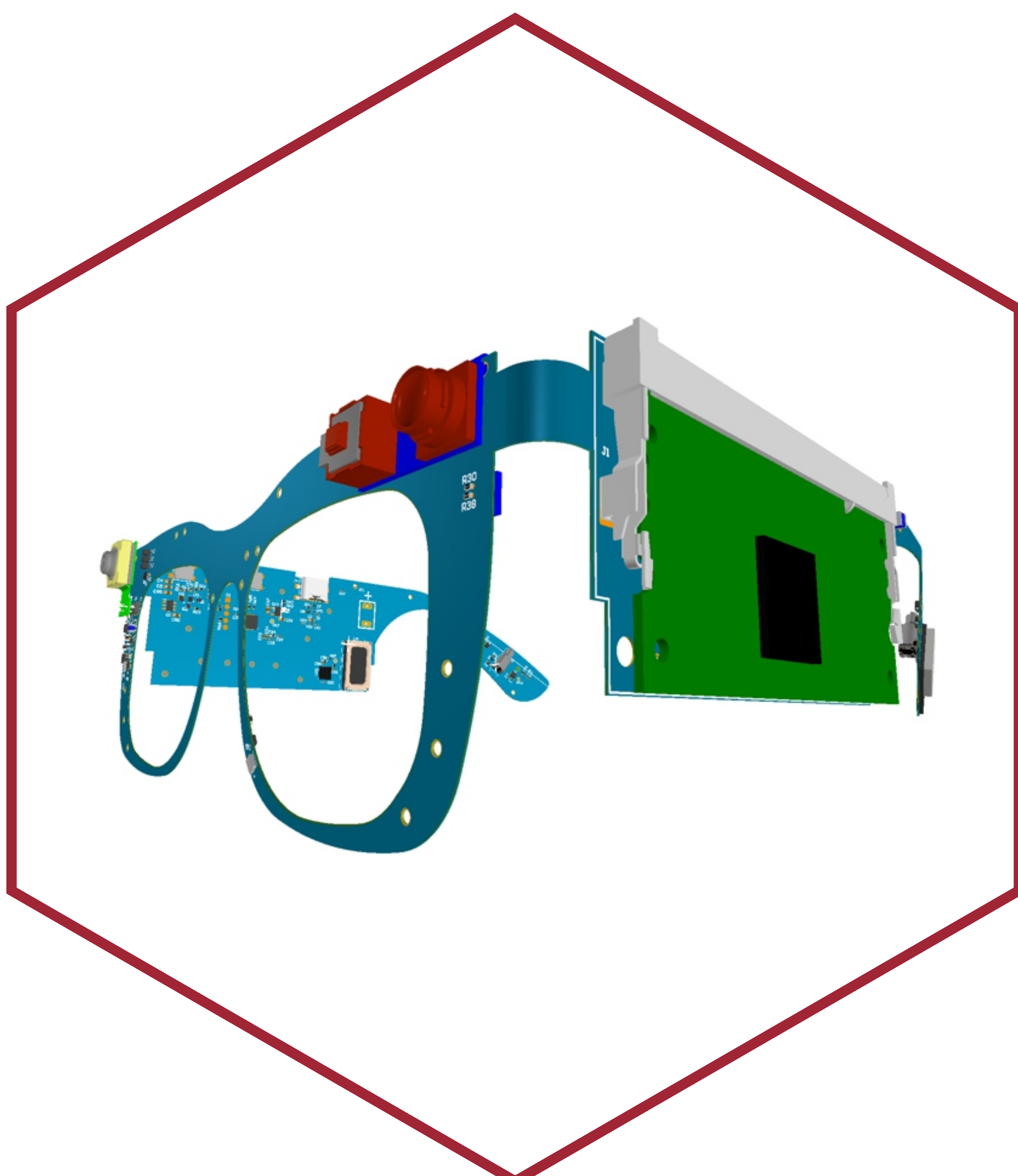# The First Raspberry Pi® Based AI Glasses for the Blind and Visually Impaired Users

AI-Powered Smart Glasses Technology

Key Advantages

- **AI-Powered Perception**
  Providing 3D context to AI Models. AI understands the context, and the space around the user

- **3D Spatial Awareness**
  Maps the user's surroundings in real time to provide step-by-step navigation

- **Immersive Haptic Feedback**
  Intuitive vibration patterns indicate direction, distance, and nearby obstacles

- **Conversational AI Companion**
  Assistant reads text, recognizes objects, and answers questions conversationally

Technology Highlights

- Dual - Sensor System
- Haptic + Audio Interface
- Connectivity
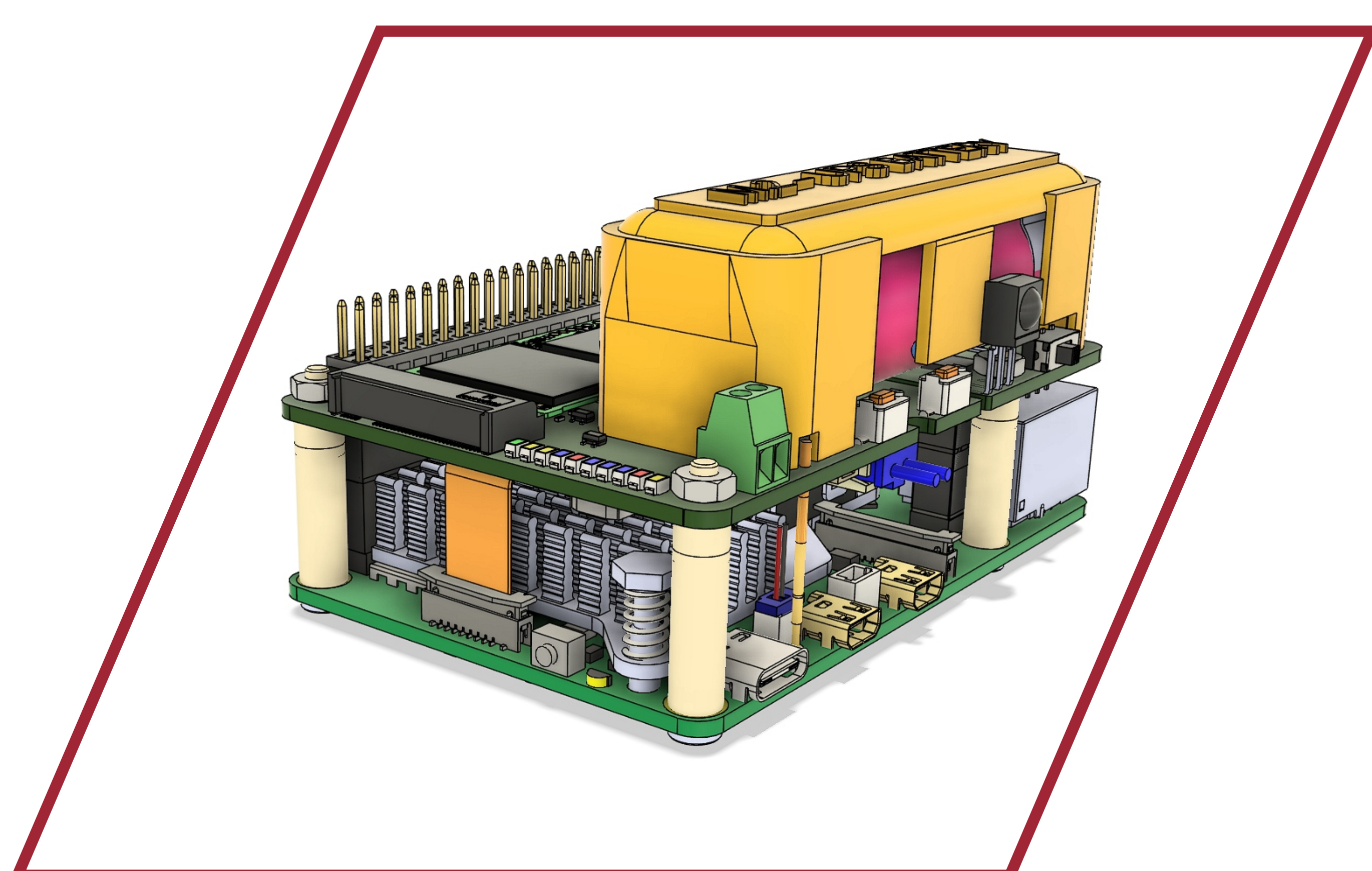- Cross - Platform App

Applications

- **Navigation Assistance**
  Step-by-step route guidance and obstacle alerts indoors & outdoors

- **Object Recognition**
  Identifies people, signs, doors, text, and items

- **Text Reading**
  Reads documents, labels, menus, and screens aloud using the latest AI models

- **Scene Descriptions**
  Provides concise scene summaries ("You're in a kitchen, facing a table and two chairs")

- **Education & Work**
  Supports visually impaired students and professionals in reading, moving, and interacting confidently

- **Developer Ready**
  For universities and research partners to build new applications

Experience the Future of Vision Assistance

Raspberry Pi Design Partner

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M.2 − UPS and Power Management HAT for Raspberry Pi® 5

M.2 Ultimate Power Management System with RTC, Enhanced Peripherals and I2C control Interface, Intelligent Mobile Power Bank Ultra − High Current Extended Buck Supply of 5.0A

M.2 – UPS & Power Management HAT is an Ultimate Power Management System HAT designed especially for **Raspberry Pi® 5** that open the full functionality of their embedded PCIe (M.2) interface and adds a wealth of innovative powerful and development features to the **Raspberry Pi® 5** microcomputer!

It has been designed to work <u>with</u> Official Cooler exploring their enhanced cooling capabilities for **Raspberry Pi 5** as also for the added **M.2** devices.

It contains two selectable backup power sources that can be used. The wide available on the market Battery 18650 Li-Ion or large selection line of XH-2.5 connector batteries (600 mAh – 10 000 mAh) as also **Super Capacitor of 4000F**.

The new **M.2 – UPS & Power Management HAT** is available in two versions: **Standard** and **Advanced/PPoE**.

Infra Pi
AI-Enhanced Infrasonic Air Pressure Sensor

The Next-Generation Contactless Sensor for Raspberry Pi & Smart Home Systems

Smarter / More Sensitive / Truly Contactless

Infra Pi introduces a revolutionary way to detect air and gas pressure - capable of sensing the slightest variations that conventional sensors miss.

With cutting-edge AI-driven signal analysis, **Infra Pi** intelligently identifies real-world events such as door or window openings, glass breake impacts, or even pre-earthquake waves, using nothing more than tiny shifts in air pressure.

Built on the **Raspberry Pi** and **Pico** microcontroller platforms and enhanced with **TinyML** algorithms, **Infra Pi** continuously learns its environment, dynamically tuning its sensitivity to ensure optimal precision and reliability.

Experience the Future of Air Pressure Sensing

Infra Pi merges advanced analog engineering with artificial intelligence to redefine air-pressure-based event detection — for homes, laboratories, and professional monitoring applications.