RAVEN

The AI-Powered Open-Source Device.

A compact, portable computing device combining Raspberry Pi power with advanced AI capabilities and open-source design, putting AI development in your palm.

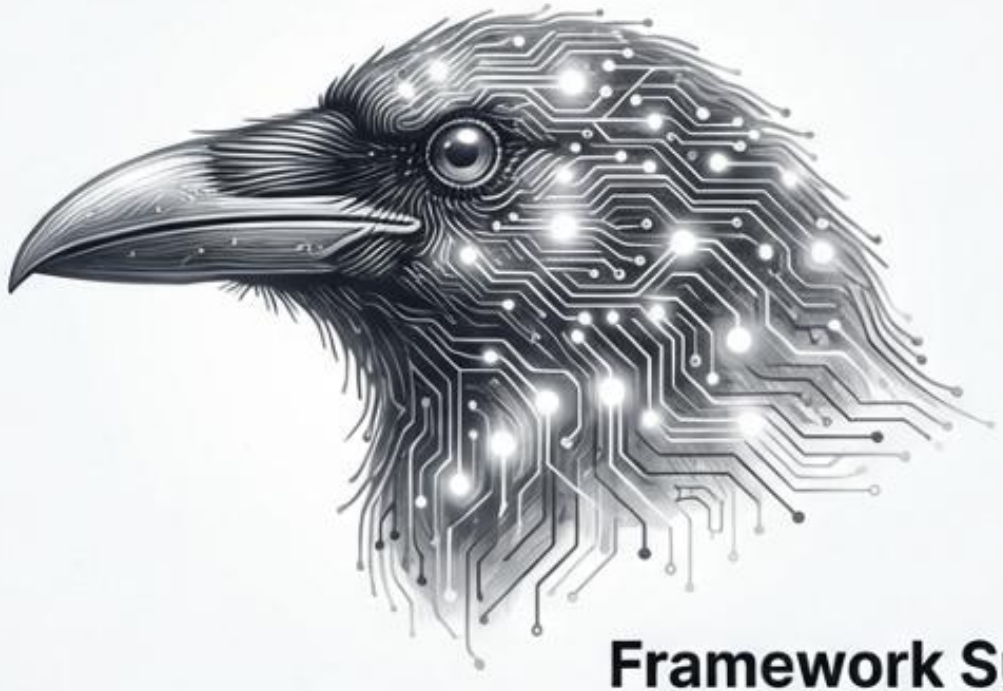
Designed x Developed by Lee Akpareva MBA MA.

This is not just a device; it’s a statement of freedom and empowerment.

Introducing the RAVEN—a portable computing revolution. Powered by the Raspberry Pi and driven by advanced AI, RAVEN is your gateway to limitless possibilities. Its compact design combines intelligence and versatility, making it the perfect tool for developers, tech enthusiasts, and professionals.

Native Intelligence, Limitless Potential

AI & Edge Computing Capabilities



AI Capabilities

- Local AI inference (LLMs, vision, speech)
- Cloud-connected AI agents (OpenAI, Claude, Gemini, custom models)

Framework Support

- Python, Node.js
- TensorFlow Lite, PyTorch (edge)
- LangChain, LangGraph, CrewAI

The Soul of the Machine is Open.

RAVEN is fully open-source. We provide the blueprints so you can understand, modify, and extend the platform without limits.

CAD Files

Complete STL files for the precision enclosure.

Firmware & Software

Full access to the underlying code.

Customizable

Design your own UI themes, hardware modules, and AI agent workflows.

RAVEN: Full Technical Specifications

Core System

- **Compute Core:** Raspberry Pi 4 Model B
- **Processor:** Quad-core ARM Cortex-A72 @ 1.5GHz
- **Memory:** 4/8GB LPDDR4
- **Storage:** microSD

Display

- **Type:** 3.5-4” IPS Touchscreen
- **Resolution:** 480x320

Connectivity

- **Wireless:** Dual-band Wi-Fi, Bluetooth 5.0
- **Ports:** USB-C, USB 2.0/3.0, HDMI, GPIO

Audio/Sensors

- **Audio:** Integrated speaker
- **Expansion:** Optional mic module, camera/sensor/hat support

AI Support

- **Edge:** TensorFlow Lite, PyTorch
- **Agentic:** LangChain, LangGraph, CrewAI

Power

- **Input:** 5V ⎓ 3A USB-C
- **Modes:** Performance/Balanced/Low-Power
- **Battery:** Optional External/Internal Support

Enclosure

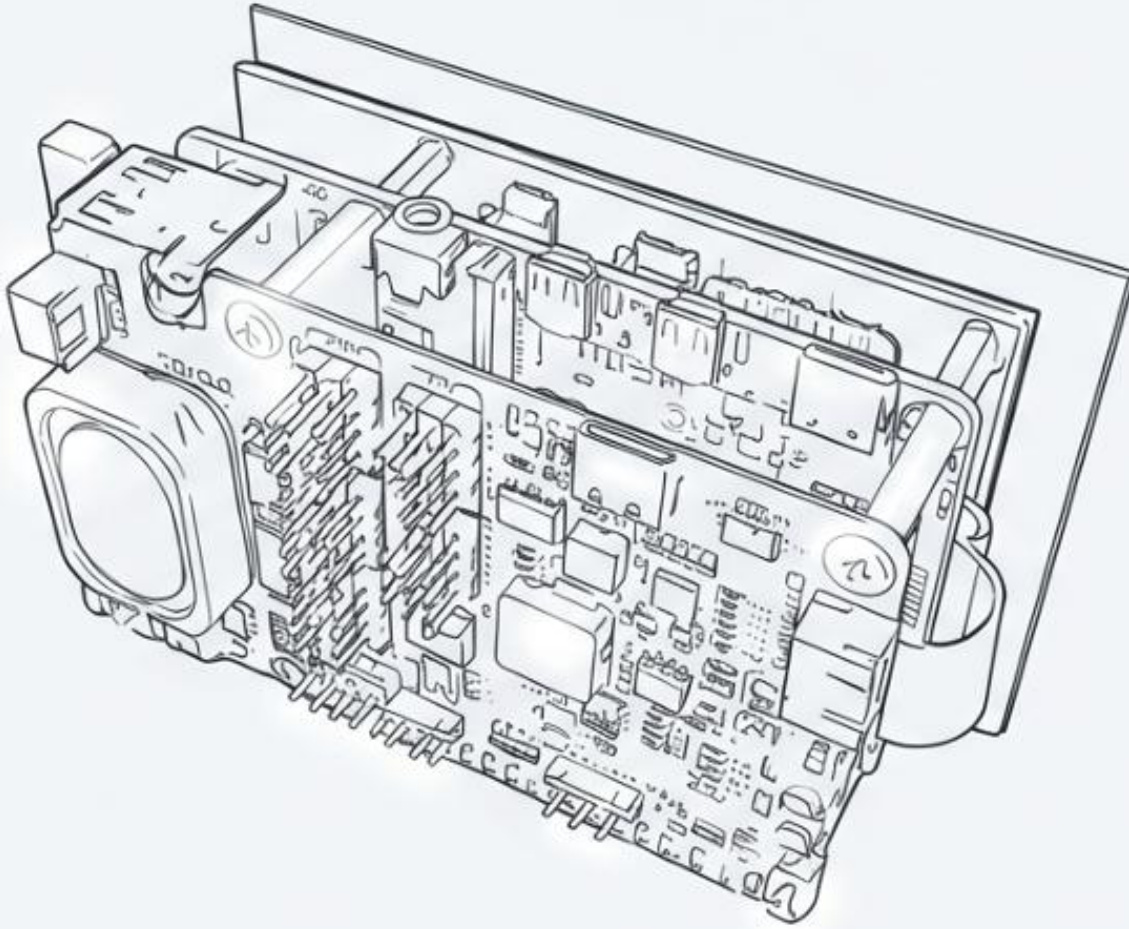
- **Chassis:** 3D-Printed
- **Material:** Matte/Transparent Polymer
- **Cooling:** Passive + Active Cooling

Software

- **License:** Fully Open-Source
- **Assets:** CAD, Firmware, and Software

Under the Hood: The Compute Core

Compute Core	**Raspberry Pi 4 Model B**
Processor	**Quad-core ARM Cortex-A72 (64-bit) @ 1.5GHz**
Memory	**4GB / 8GB LPDDR4 (configurable)**
Storage	**microSD (up to 1TB supported)**
Operating System	**Raspberry Pi OS / Ubuntu / Custom Linux Builds**



From Experimentation to Automation

Example Use Cases

AI Learning & Experimentation

A portable lab for testing new models and frameworks on the edge.

Edge Computing & Automation

Deploy intelligent agents for local data processing and task automation.

Robotics Control

A compact brain for custom robotics projects, utilizing vision and sensor inputs.

IoT Gateways

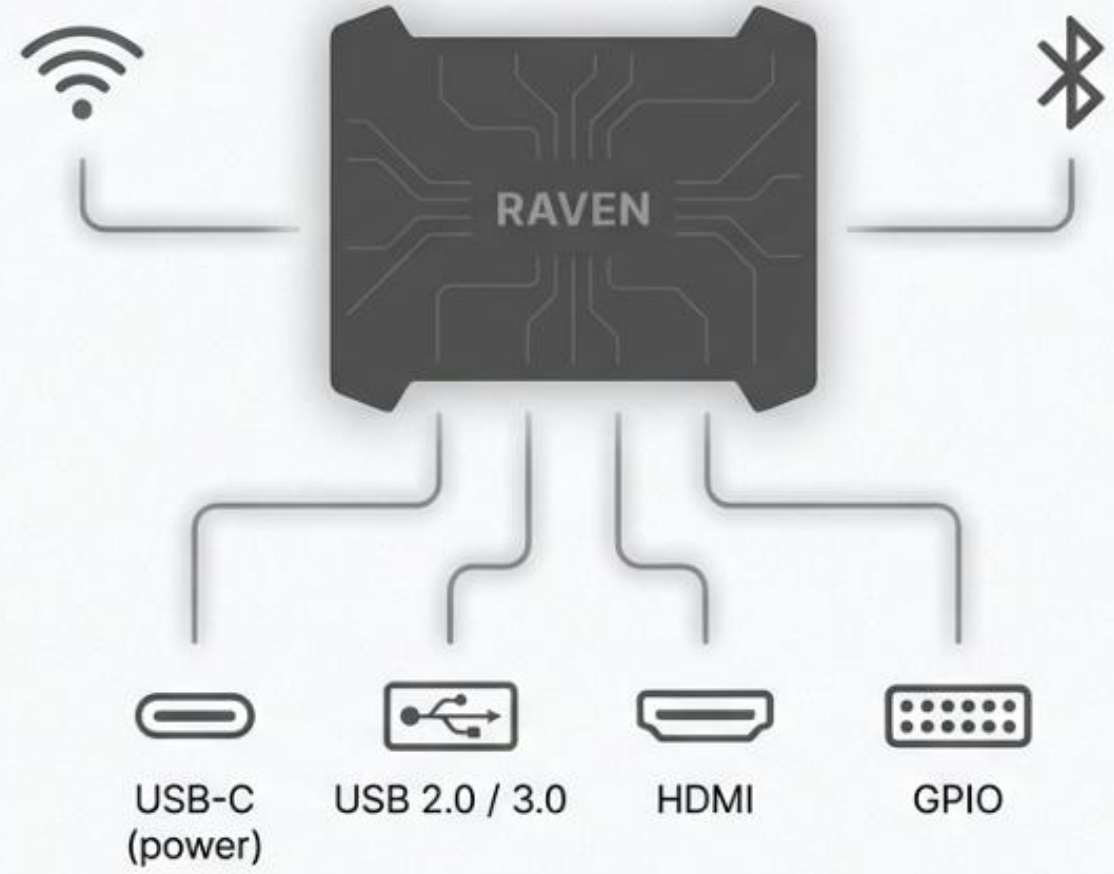
An intelligent hub for managing and interacting with a network of IoT devices.

Connected to Your World

Wireless & Physical Ports

Wireless

Dual-band Wi-Fi
(2.4GHz / 5GHz)
Bluetooth 5.0



Ports

USB-C (power)
USB 2.0 / 3.0
HDMI (internal or external)
GPIO access (via breakout
or internal header)

Precision-Engineered for Customization

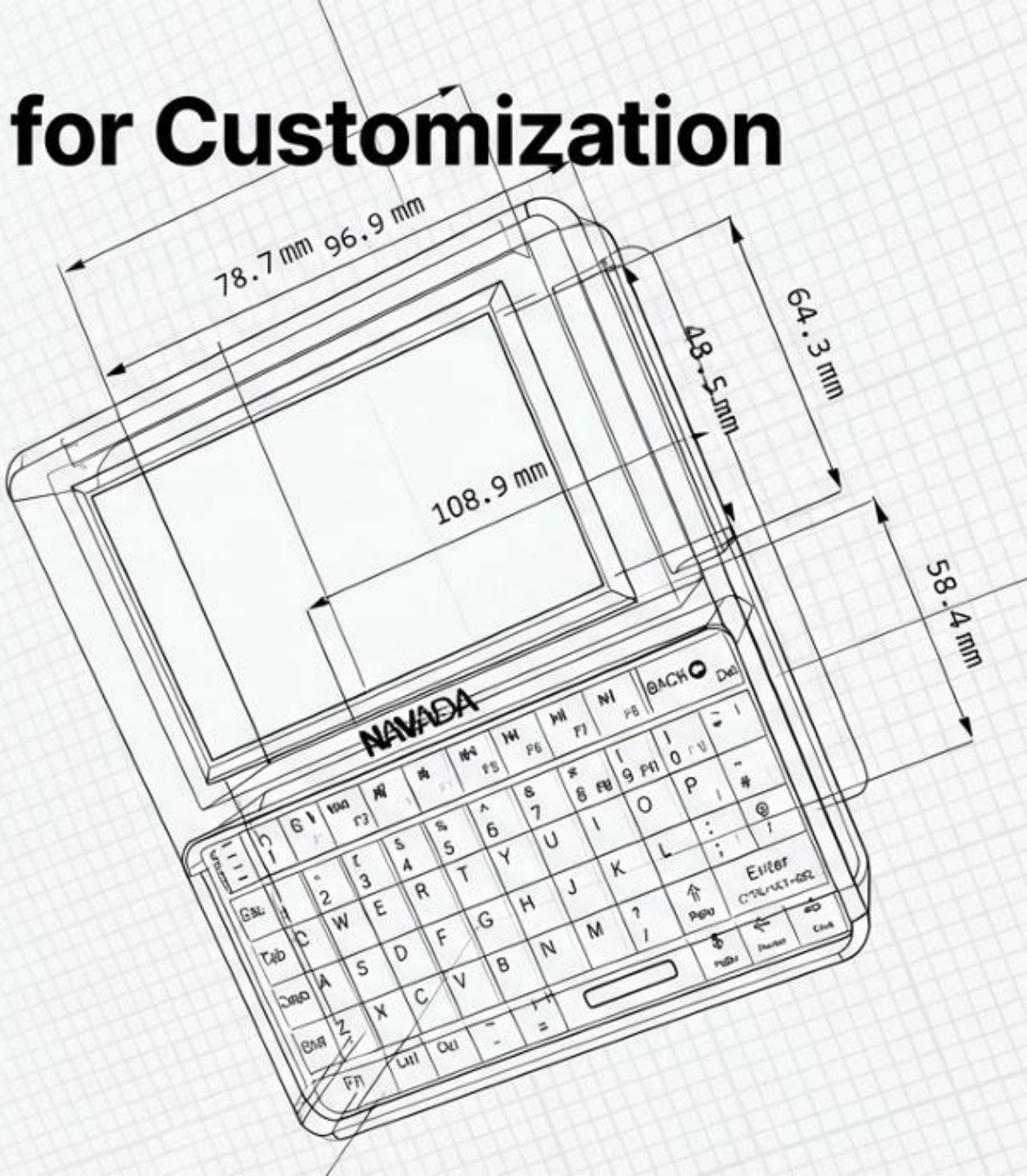
Enclosure & Build

Chassis
3D-printed precision enclosure

Material Options
- Matte polymer
- Transparent / technical shell

Finish
Black / White / Custom editions

Cooling
Passive + active micro-fan (model dependent)



Carry the power of AI in the palm of your hand.

Unleash the Future.

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