

# Building Embodied-AI with IoT and Agentic-AI

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# Gizwits - China's Leading IoT Platform Company



- ❑ Gizwits is China's FIRST IoT Platform as a Service PaaS company (launched in 2010)
- ❑ Serving 30+ million IoT devices in 200+ countries, from service clusters in Europe, US, China and South East Asia
- ❑ \$40+ million investment from leading VC funds and Qualcomm



- ❑ 370,000 IoT developers uses Gizwits SDK/APIs
- ❑ 30,000+ equipment manufacturer customers
- ❑ Including leading global equipment brands

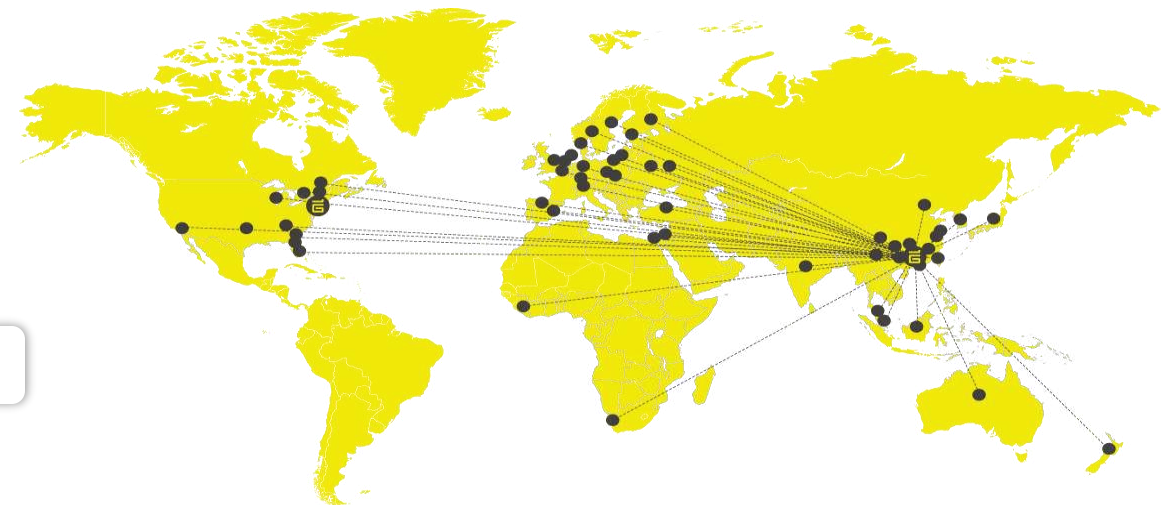
SIEMENS

DAIKIN

FUJITSU

3M

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# Gokit5 - An open source embodied AI DEV-Kit



## Open Source Hardware Design

Demonstrate how low-power & **low-cost** SOC wi-fi chipsets or GSM modules can used **to build the world's smartest devices**

## Open Source Firmware

The firmware is **open source**, allowing developers to **create** more interesting functionalities, or even completely **new applications**

## Integration with IoT Platform and Agentic Framework

Gizwits platform allows for

1. IoT Device manangment: remote monitoring and control, OTA, etc.
2. Connectivity with LLM to perform **multi-modal inference**
3. **Planning/Execution/Improvmnt** with Agentic Framework



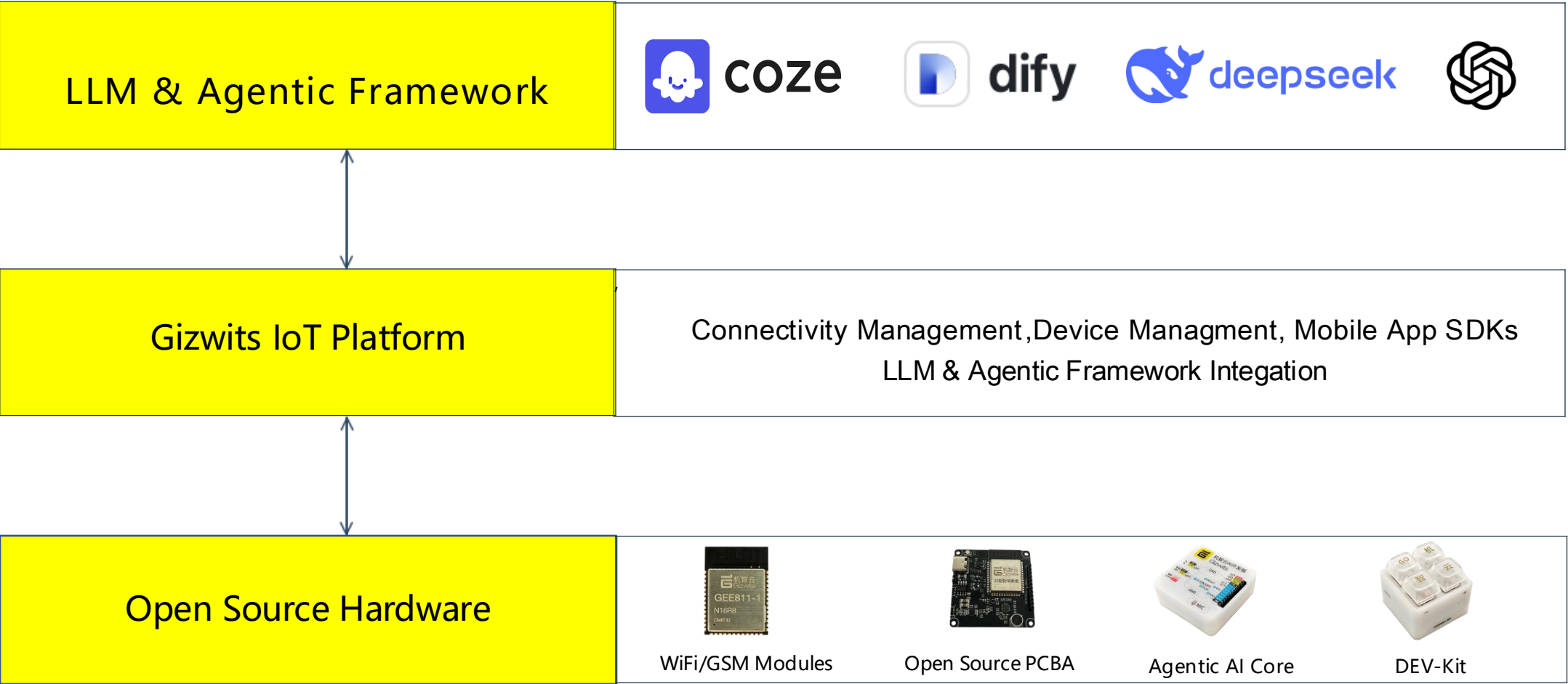
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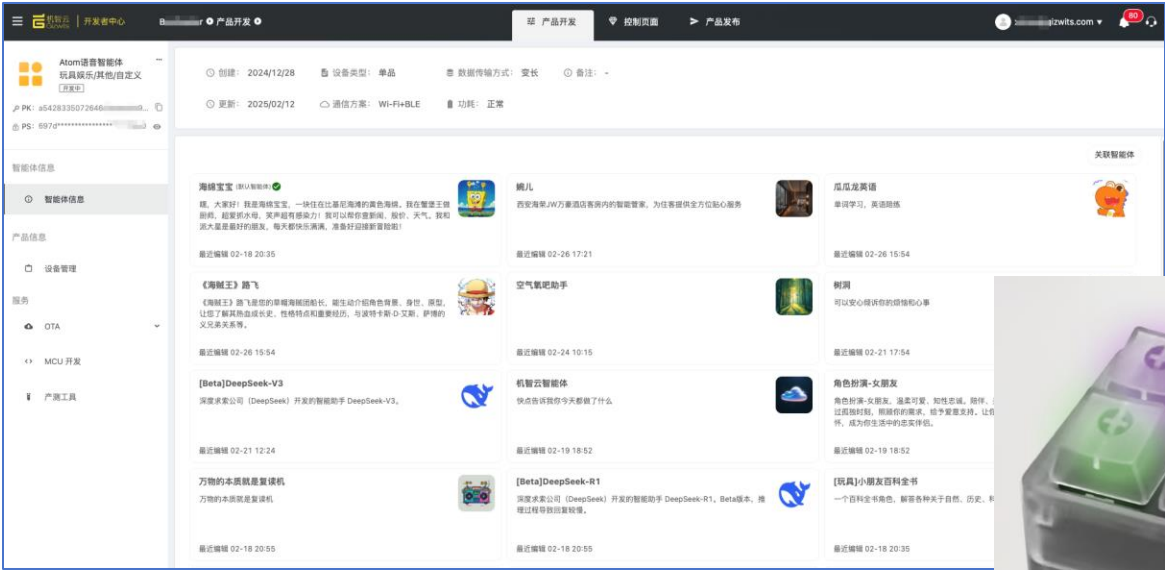
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# Where IoT and AI meet, Embodied AI Rises!



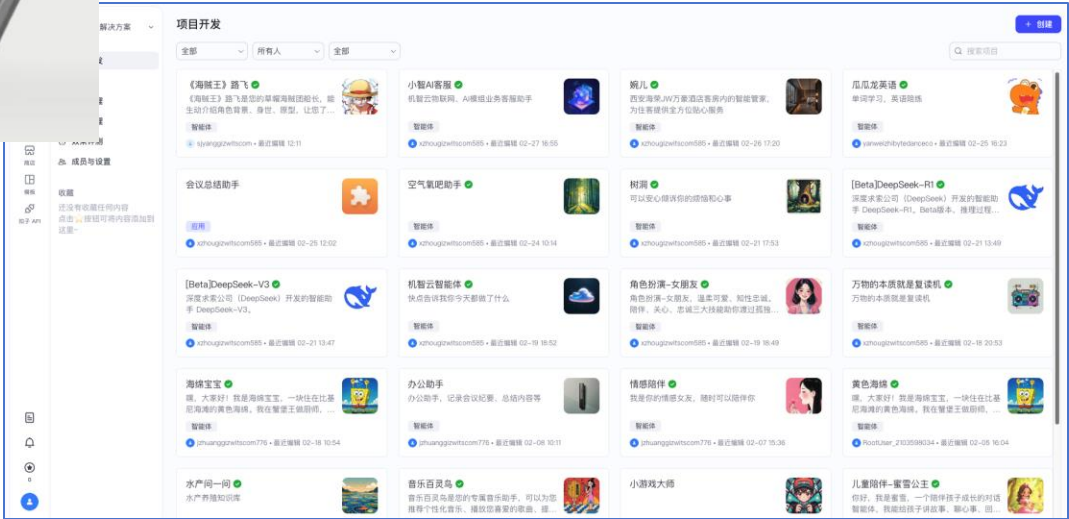
# Seamless integration of Gizwits and Agentic Framework



Gizwits (IoT Development)



coze





# Create embodied AI prototypes in minutes (with custom System Prompts and Workflows)



# Case Study: Interactive Toys





## DEMO - Can Smart Home finally be “Smart”

### Scenario Description

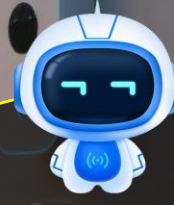
- User is a computer engineer
- Overworked, and sleep deprived
- Marathon runner that works out regularly, but have not done so lately due to busy schedule
- Vision issues due to long daily screen time at work
- Environmentally concious and has advocated a “10-kWh per person/month savings” plan



Mission Objective 1:  
Take care of user's health



Mission Objective 2:  
provide a comfortable living  
condition for the user



Mission Objective 3 :  
Save energy when possible



Automatic planning and  
execution accross different  
brands and devices

Next-Generation  
Smart Home Assistant



# Mission Driven Agent vs Task Driven Agent



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## From “Rule-based Execution” to “User Needs Fulfillment”

- Health care: Sleep quality monitoring → Schedule suggestions → Control curtains and lighting.
- Comfort assurance: Learning user preferences → Dynamically optimizing the environment.
- Energy saving: Balancing comfort with energy consumption.

## Purposeful Communications & User State Sensing

- Proactive care: Reminding users of sleep time via voice, and recommending sleep aids like music.
- Multimodal interaction fusion: Intention and emotion recognition → Adjusting interaction strategies.
- Intention recognition: Interpreting ambiguous commands.

## Sensor Data as Multimodal Input for Trends Analysis

- Health indicators: Sleep duration statistics, eye-fatigue warnings, posture analysis, etc.
- Energy-saving progress: Monthly/annual energy-saving reports, automatic adjustment of energy-saving strategies.
- Cross-brand device synergy: data taken from multiple devices are taken into consideration

## Self-planning and Self-Improvements

- Incorporating user feedback to continuously refine strategies.
- Continuously learning user behavior to build a family digital profile.
- Iterating user models to shift from general responses to personalized service.

Mission  
Driven

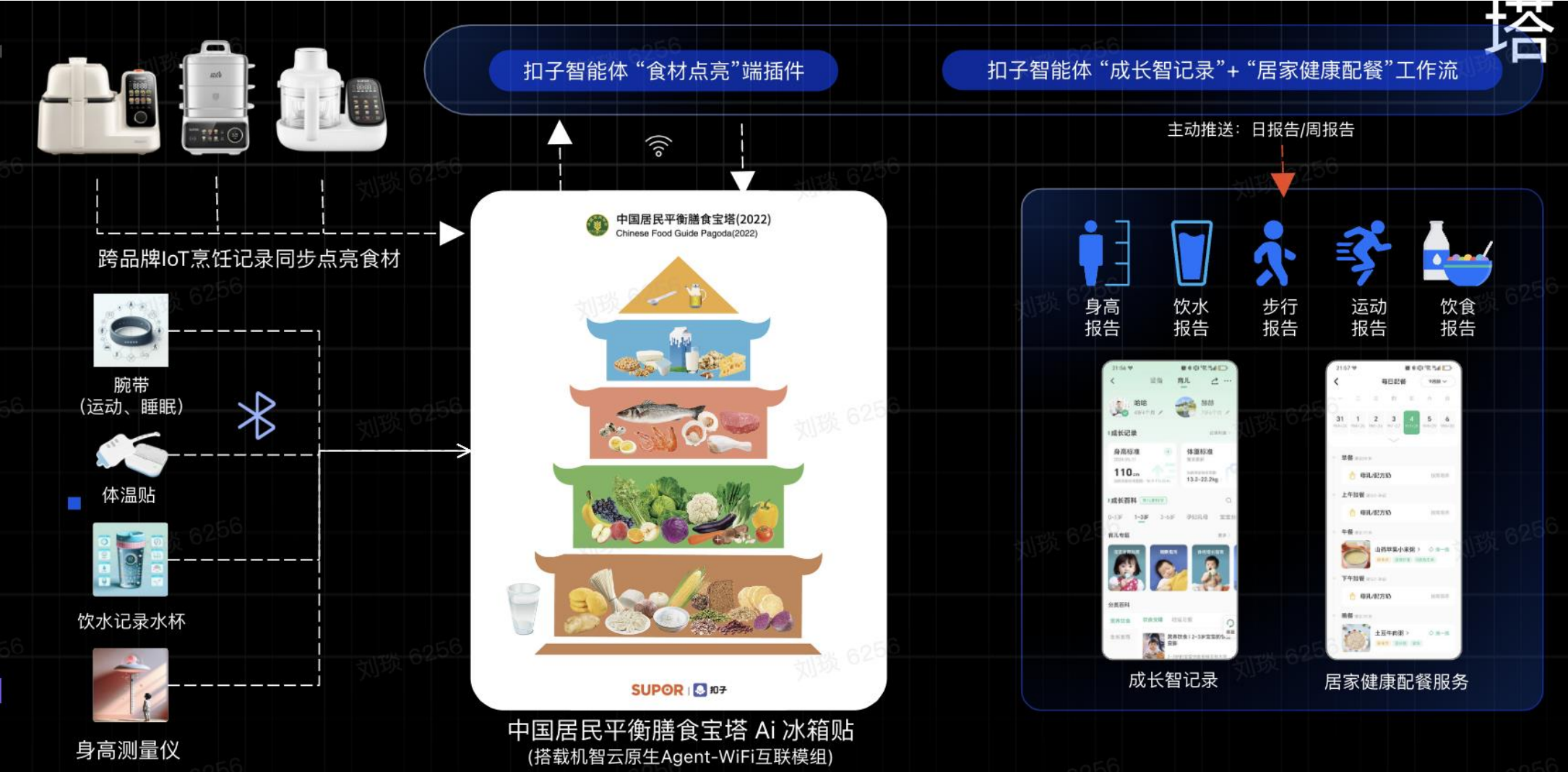
Continuous  
Engagement

Continuous  
Monitoring

Continuous  
Improvement



# Case Study: Health and Wellness

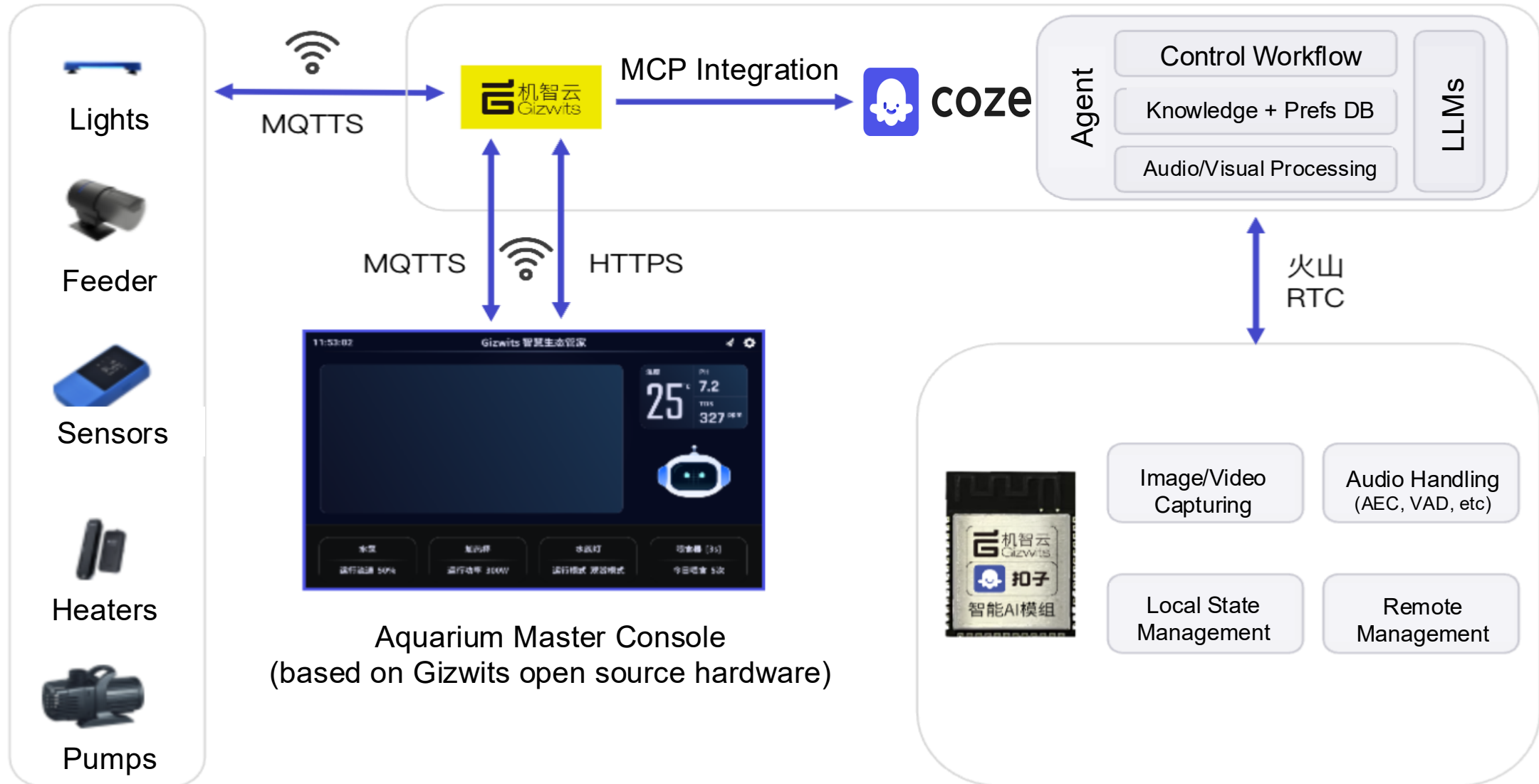




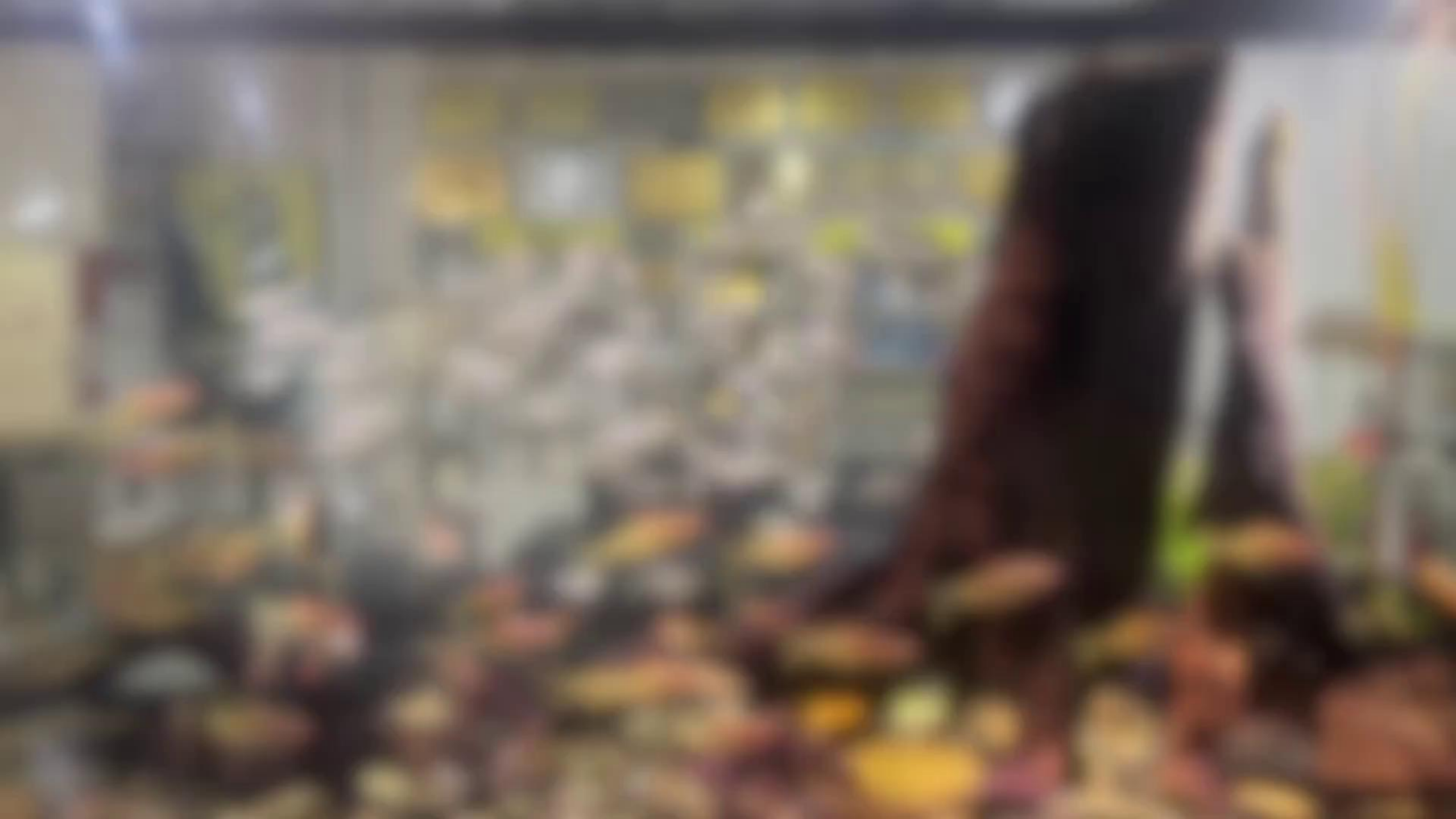
# Case Study: Aquarium Master



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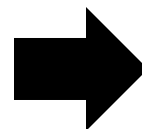


# Agentic-AI as the driving force for the next stage of IoT Evolution



## Existing Problems with Connected Devices

- ? Poor usability**  
Mobile apps are sometimes making products more difficult to use
- ? Overhyped and underdelivered**  
Connected devices are charged a premium over “traditional” ones, but don’t deliver extra value
- ? Extra customer service burden**  
24x7 customer service to help customers use products



## Solutions offered by Agentic-AI

- ✓ Natural multimodal interactions**  
Instead of learning to use a mobile app, users talk to the devices
- ✓ Devices can think and understand**  
Armed with LLM and agentic AI application, devices and its are much smarter and more useful
- ✓ Handles most of the customer service**  
Most customer service questions can be answered by the devices and/or their apps

# Working with Gizwits on Embodied AI



## Devices

- ❑ Open Source hardware+Firmware
- ❑ Comprehensive Hardware Solutions

## Services

- ❑ Industrial-grade IoT platform
- ❑ Offering MCP Support
- ❑ Usage-based LLM services
- ❑ 200+ countries, all major markets

## Apps

- ❑ Build your own mobile apps with iOS/Android SDK and APIs
- ❑ Native Coze support, integrating with other Agentic-AI Framework coming soon



# Product Strategies



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## Single Product

Upgrade traditional products with Audio/Visual Interactivity, Products that can THINK!



Table Lamp



Connected Table Lamp



Teaching Table Lamp

## Product Suite

Build your own  
Alexa of one's own brand;  
Use AI to enhance synergy  
among products, ; upsale  
cross-sale; content/service  
integration



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# Comprehensive Open Source Hardware Solutions



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AI WiFi/GSM Modules

- WiFi and 4G modules are both available
- 16MB Flash
- Optional onboard/external antenna
- 240Mhz main frequency
- 512KB SRAM
- Gizwits AI full-link capability

- For customers with hardware development capabilities, like solution providers.
- They can develop peripherals (e.g., CAM, LCD) and customize the board frame size based on their product/solution needs.



Open Source PCBA

- Embed AI Agent Module
- WiFi+BLE Dual Mode
- Programmable GPIO\*18
- Integrated charge/discharge circuit
- Open-source hardware documentation
- Configurable voice peripherals
- Gizwits AI full-link capability
- Support for custom wake-up words

- For customers with structural development capabilities, like solution providers and manufacturers.
- They can adjust battery capacity, speaker power, and cable length as needed.



Agentic AI Core (46\*46\*18mm)

- Embed AI Agent Module
- WiFi+BLE Dual Mode
- Integrated charge/discharge circuit
- Configurable voice peripherals
- Gizwits AI full-link capability
- Support for custom wake-up words
- Ready to use out of the box

- Suitable for finished product manufacturers, such as plush toy manufacturers. Embedding the core module into a plush toy can complete the toy's AI upgrade.



Gokit5 AI DEV-Kit

- Embed AI Agent Module
- WiFi+BLE Dual Mode
- Integrated charge/discharge circuit
- Configurable voice peripherals
- Gizwits AI full-link capability
- Support for custom wake-up words
- Ready to use out of the box
- Button-operated for greater convenience.

- Suitable for smart education, business services, companionship, AIGC creation, etc. Supports button interaction, customizable AI agents, over 10 preset agents, combinable voice libraries, and personalized interaction protocols.



Expansion accessory module

- Camera
- LCD Screen
- RGB Light board
- Mic, Speaker, Chamber Speaker
- Touch buttons, Buttons
- Battery
- Servo

- Building-block style assembly adapts to all forms, with multiple peripheral interfaces reserved for microphones, speakers, motors, touchpads, and RGB light strips—whatever you need, just plug it in.

AI Cloud Service

- IoT PaaS for device management: remote control, monitoring, and OTA upgrade, etc.
- Generative AI - ASR, TTS, multimodal inference (pay as you go or annual subscriptions)

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# THANK YOU



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