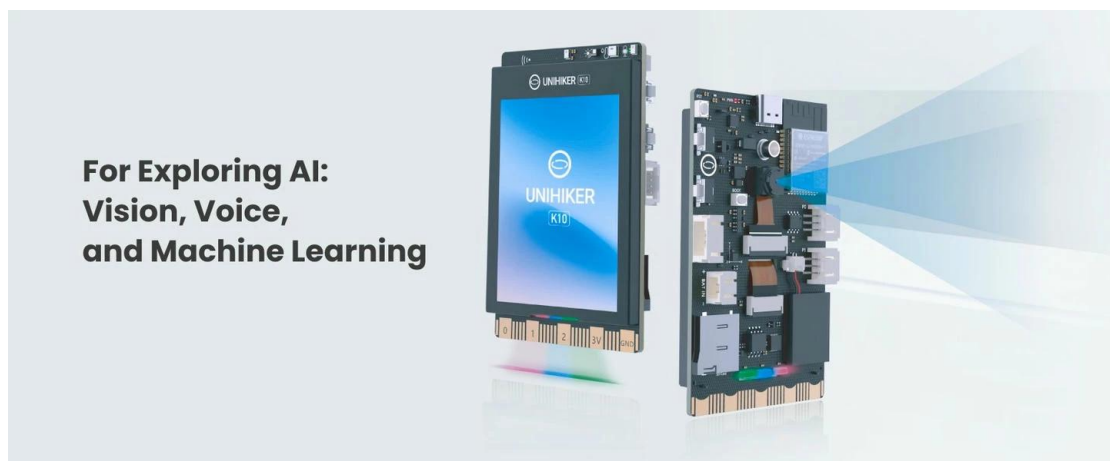


Introduction

The UNIIKER K10 is not just a coding board; it is a gateway to the physical AI revolution. Designed for K12 STEM education, beginners, and advanced makers, it combines **vision AI, voice control, and TinyML machine learning** in one compact device. **Powered by the ESP32-S3**, this AI terminal bridges the gap between Cloud Large Language Models (LLMs) and the physical world. Featuring a 2.8-inch color display, dual wireless connectivity (Wi-Fi/Bluetooth), and a comprehensive sensor suite (2MP camera, microphone, speaker, RGB light, plus environmental detectors), the UNIIKER K10 is the ultimate hardware carrier. Whether building an offline Vision AI monitor, a DeepSeek-powered voice assistant, or an autonomous smart home system, the UNIIKER K10 makes cutting-edge AI tangible without requiring complex wiring.



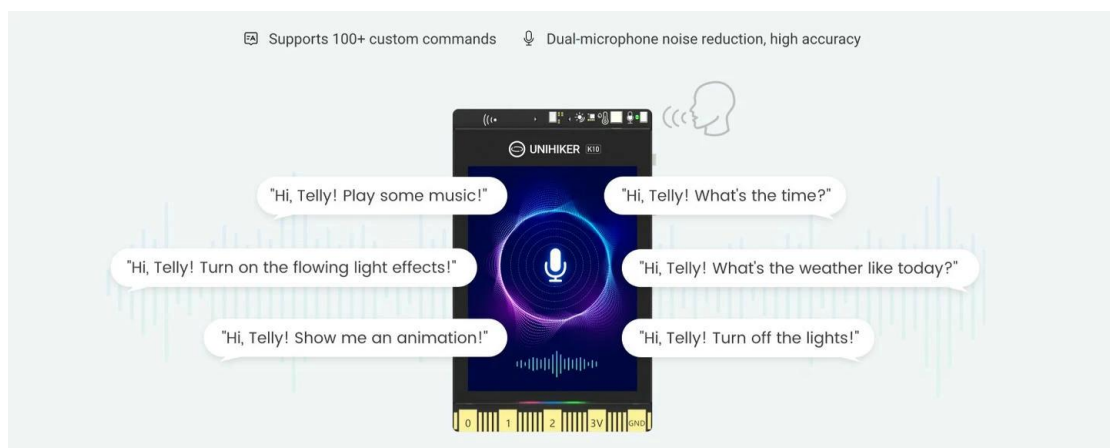
4 Pre-Loaded Vision AI Models for Beginner Projects

Ideal for first-time AI exploration, the UNIIKER K10 board comes with four ready-to-use vision models: **Face Detection, Pet Recognition (Cat/Dog), QR Code Scanning, and Motion Sensing**. The integrated 2MP camera allows beginners to immediately create security systems, interactive displays, and smart monitoring projects - no prior programming experience needed.



Supports Offline Speech Recognition

Equipped with a built-in microphone and pre-installed voice models, the UNIHKER K10 supports offline speech recognition. This enables users to create voice-activated applications, such as custom voice commands and interactive AI systems, without requiring an internet connection.

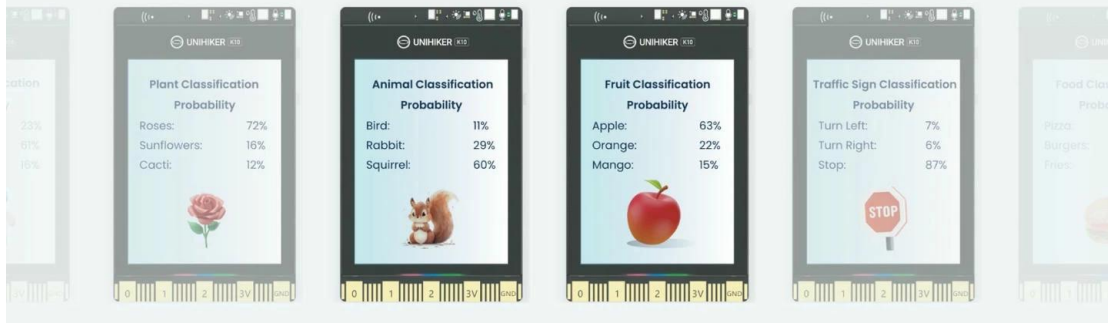


Not Just Built-in Models

The UNIHKER K10 supports TinyML, allowing users to train their own custom vision and sensor models. With the ability to develop personalized AI models for specific tasks, users can explore deeper AI applications and tailor the board's functionality to their unique projects. Whether working with image recognition, sensor data, or other AI-based tasks, TinyML offers the flexibility to push the boundaries of the board's capabilities.

Create More AI with the Camera

Capture images with the camera, use TinyML to train and deploy more visual models



Create More AI with the Sensor

Capture Time-Series data with sensors, use TinyML to train and deploy more sensor models



Combine BT & Wi-Fi with AI to Create More Possibilities

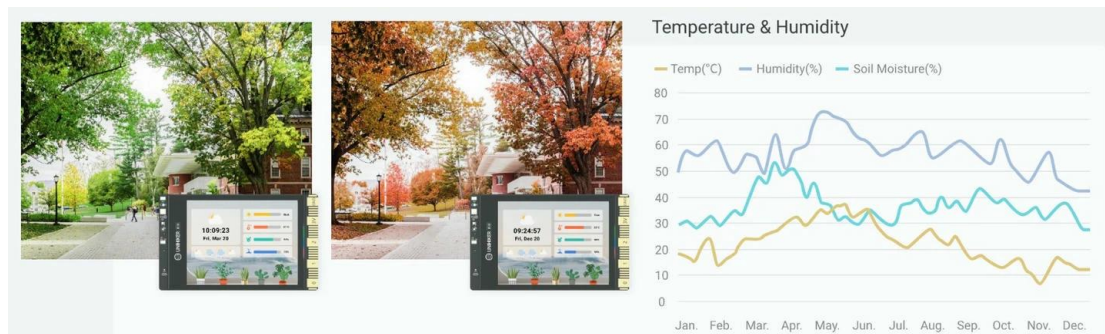
By combining Bluetooth 5.0 and Wi-Fi 2.4G with onboard AI functionality, the UNIIKER K10 offers extensive connectivity options for creating more interactive and data-driven applications. Whether building IoT systems, remote control applications, or data transmission projects, the UNIIKER K10 provides seamless integration of AI with wireless communication protocols.



Support the Internet of Things

The UNIIKER K10 is designed with IoT applications in mind. It supports long-term data collection and remote monitoring, making it ideal for projects that require continuous data recording and analysis. With its rich set of sensors (temperature, humidity, light, accelerometer) and connectivity options (Wi-Fi, Bluetooth), users can easily integrate the UNIIKER K10 into IoT ecosystems for real-time monitoring, remote device control, and data-driven applications.

Pair it with the [Gravity: BME688 AI Environmental Sensor \(VOC, Temperature, Humidity, Pressure\)](#) to create advanced air quality monitoring projects.



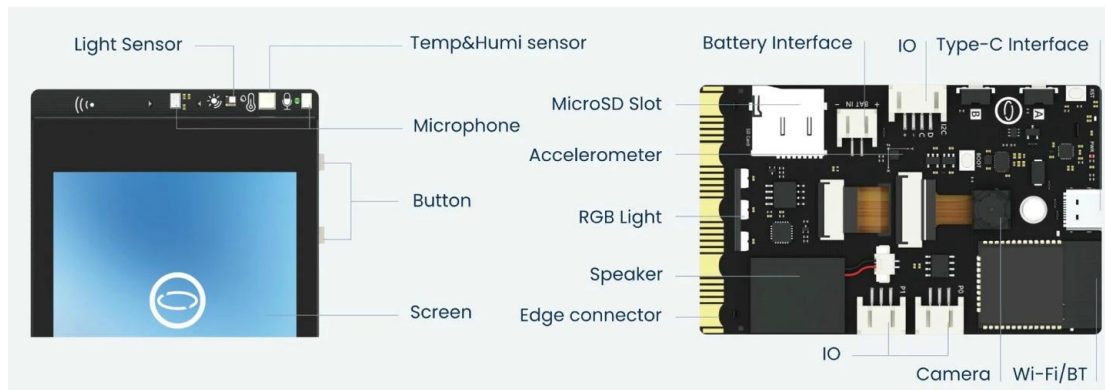
Built-in 2.8-inch Color Screen for Data Visualization

The UNIIKER K10 features a 2.8-inch color screen that enables users to visualize real-time data from sensors, AI models, and projects. This screen is ideal for displaying sensor readings, AI outputs, and project results directly on the board, providing immediate feedback.



Rich Interfaces and High Expandability

With an array of I/O ports, including USB Type-C, MicroSD, Gravity 3pin/4pin, and edge connectors, the UNIIKER K10 offers rich expandability for connecting additional sensors, actuators, and accessories.



Supports Graphical and MicroPython Programming

The UNIHiker K10 supports both graphical programming and MicroPython, catering to users at different skill levels. It is also compatible with Mind+, a drag-and-drop programming tool that simplifies coding with blocks. The graphical programming interface allows beginners to quickly build projects without needing to write code, while MicroPython offers a more advanced programming environment for experienced developers.

The tool also offers a variety of sample projects to help users get started, such as:



- AI face detection
- QR code scanning
- sensor control

For more hands-on tutorials, visit the [Examples link](#) to explore a wide range of projects.

Download Mind+ to get started: [Mind+ Download](#).



UNIHiker Selection Guide

 <p>UNIIKER K10</p> <p>Grade 3 above</p> <p>Core: ESP32-S3 MCU, No OS, 512KB/16MB</p> <p>MicroPython, Mind+</p> <p>TinyML AI Model</p> <p>\$28.9</p> <p>→</p>	 <p>UNIIKER M10</p> <p>Grade 6 above</p> <p>Core: RK3308 CPU, Linux OS, 512 MB/16GB</p> <p>Python, Mind+, VSCode</p> <p>ML/YOLO/MobileNet/MediaPipe and more AI Model</p> <p>\$59.9</p> <p>→</p>
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Video: Introduction and Feature Demonstration of UNIIKER K10

Applications

- AI Learning
- Machine Learning
- Face detection
- Speech recognition

Specification

- MCU: ESP32-S3 Xtensa LX7
- SRAM: 512KB
- Flash: 16MB
- Wi-Fi: 2.4G
- BT: Bluetooth 5.0
- Screen: 2.8 inch, 240x320
- Camera: 2MP
- Sensor: Button, Microphone, Temperature Sensor, Humidity Sensor, Light Sensor, Accelerometer Sensor
- Actuator: RGB Lights, Speaker
- Pre-Installed AI models:
 - Face Detection
 - Image Recognition
 - Cat/Dog Detection
 - QR Code Recognition
 - Motion Detection

Local Speech Recognition

Custom Voice Commands

- Port: USB Type-C, MicroSD, Gravity 3pin&4pin port, 2pin ph2.0 battery port, Edge connector
- Power: USB Type-C, Battery Port, Edge Connector
- Size: 51.6mmx83mmx11mm

Shipping List

- UNIHIKER K10 x1
- Type-C USB cable x1

Documents

- [Product wiki](#)
- [Getting Started](#)
- [Tutorial - Getting Started with MindPlus graphical programming Software](#)
- [Examples](#)
- [MindPlus Blocks Reference](#)
- [Hardware Reference](#)
- [FAQ](#)