



M5StickV AI Camera – Kendryte K210 Chipset (no Wi-Fi)

PRODUCT ID: 4321

The M5StickV AI Camera is a cute, tiny AI camera with capabilities spanning from facial recognition/detection, object detection/classification, shape recognition, detecting targets and sizes in real-time, among other video/audio features. The camera is powered by [Kendryte K210](#), an edge computing system-on-chip with dual-core 64bit RISC-V CPU and state-of-art neural network processor.

This module comes with the OmniVision OV7740 sensor, using the OmniPixel®3-HS technology, providing a best-in-class low light sensitivity, making it ideal for machine vision. In addition to an OV7740 sensor, M5StickV features more hardware resources such as a speaker with built-in I2S Class-D DAC, IPS screen, 6-axis IMU, 200mAh Li-po battery, and more. Note the battery

does not last very long because of the high current draw of the display and CPU. Please note that there is a microphone on board but it is not functional, hopefully will be repaired in the next revision of this board.

This is an awesome dev kit to get started with the Kendryte K210 RISC-V core, with all the fixin's already built in!

Specs

- [Quick Start Guide](#)
- SoC - Kendryte K210 dual-core 64-bit RISC-V processor @ 400MHz with dual independent double-precision FPU, 8MB on-chip SRAM, Neural Network Processor (KPU) @ 0.8Tops, Field-Programmable IO Array (FPIOA), and more
- Storage - 16MB flash, microSD card slot
- Display - 1.14" SPI display with 240×135 resolution (ST7789 driver)
- Camera - VGA (640×480) camera via OV7740 sensor
- Audio - MAX98357 mono audio amplifier, speaker
- Sensor - MPU6886 3-axis gyroscope, 3-axis accelerometer
- USB - 1x USB-C port for power and programming
- Misc - Front and side buttons (A / B), power button, RGBW LED
- Expansion - 4-pin "CONNEXT" port
- Power Supply
 - 200 mAh battery
 - AXP192 PMIC