MonkAI Detector

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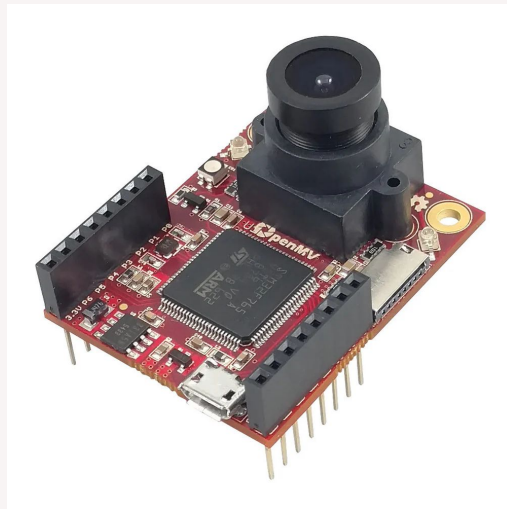
Tiny Vision Gesture Classifier on OpenMV H7

Goal
Run a tiny, decision-tree–style model (from ICML 2017 idea) on the board to classify 4 camera gestures.

Why OpenMV H7?
- Has built-in camera → visual gestures possible
- Runs MicroPython and TinyML
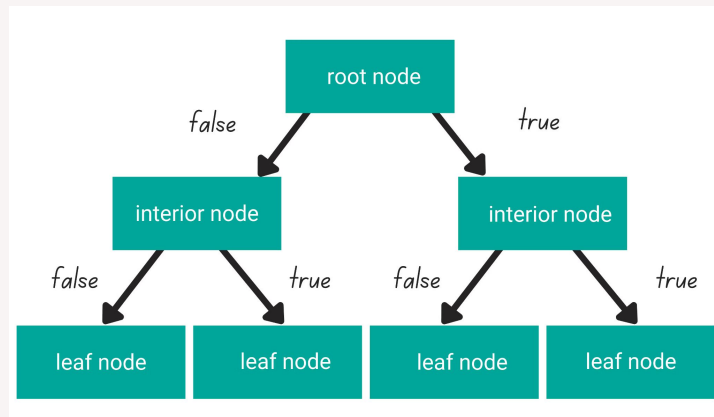- MCU is strong enough for simple image features + tree

Workflow

Capture: Use OpenMV H7 camera to grab a small grayscale frame.

Features: Compute simple on-board features (ROI averages / thresholded pixels).

Model: Apply a hand-coded decision tree (exported from Python) to pick 1 of 4 gestures.

Output: Print the class over serial and show a matching icon.

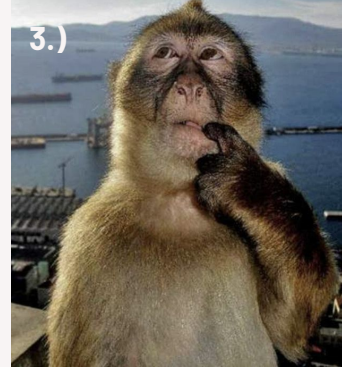**Host demo:** Laptop script listens to serial and displays the picture for that gesture.

Target Gestures

1.) Neutral / no hands

2.) One finger up

3.) Finger on mouth

4.) Thumbs up

Thank you

Questions?