

engiAI

EngiAI (engiAI Ethernet System) is a desktop machine-vision application for industrial inspection and product rejection on the conveyor. Written in C# (.NET 9, WinForms), it builds into a single self-contained AOT executable for Windows x64.

What it does

Camera capture: industrial Hikrobot (SDK), USB/DirectShow, IDS uEye, and also Android cameras via OpenCV. Multiple cameras at once.

AI inspection: YOLO neural networks (ONNX Runtime / GPU-CUDA or CPU) detect objects and defects in real time.

ROI zones: configurable inspection areas with classes and rules, named zones, catalog.

Rejector: based on the AI result, it sends a signal to a discrete output (reject ejection), with pinout setup and tester check.

Triggers: frame capture on an external signal (discrete inputs, encoders).

Model training: datasets, synthetic augmentation (rotations/mirror/brightness), YOLO11 training right from the program.

Storage: local SQLite database (rejectors.db) — models, zones, event log, camera state.

Licensing

Single build: mode (trial / license / block)

Without a license — 20-minute trial mode; with a license — unlimited operation.

Hardware binding, control of all running instances.

Requirements

Windows 10/11 x64. CPU and GPU analysis — RTX 50+ versions.

Registration

Request engiAI

<https://engi.live>