OVERVIEW

Case Study: OCR on Consumer Coffee Packaging Across Multiple SKUs with Zero Training Data

Summary

One of the world's largest packaging OEMs needed to bring automated OCR inspection to a coffee packaging line handling multiple product sizes and shapes, verifying production dates, best-before dates, and product codes on every unit. Manual verification was inconsistent at scale and could not keep up with the range of SKUs moving through the line.

To address this, we installed the OV80i smart camera with a 12mm lens and set up dark field ring lighting to sharpen text contrast across different package surfaces. No training images were needed. Rather than building a model from labeled data, we configured the OCR engine by tuning parameters directly against the production parts. From mounting to a fully validated inspection, total setup time was 45 minutes. Tested across all eight product sizes and shapes, the system accurately read text on every SKU.

- **Industry:** Consumer Goods / Packaging OEM
- **Application:** OCR on production dates, best-before dates, product codes
- **Key Challenge:** Multiple SKU sizes and shapes; no training data available

Why this matters:

No training data needed

New SKUs and label formats onboard in minutes. No labeled image sets, no ML project, just parameter refinement on the actual part.

Global scale, zero licensing

Every facility worldwide runs the same recipe on-device. No per-site or inspection fees.

Packaging inspection applications

Lot codes ● Expiry dates ● Ingredient labels ● Batch codes ● Serialization & track-and-trace

Success Metrics

0 — Training images required outside of parameter tuning

45 min — Total time to set up mounting, lighting, and OCR tuning

~8 SKUs — Tested in one session, all of various size and shape

Detection Examples

