



CRATE INSPECTOR

 **FirstStep.ai**

PRODUCT BROCHURE
v2025.01

Product Overview

Product Summary

The FirstStep.ai Full Crate Inspector (FCI) revolutionises crate inspection using advanced imaging technology, high-speed processing, and AI-powered accuracy. Designed for bottling companies, it ensures efficiency, accuracy, and operational control in high-volume operations.

Benefits

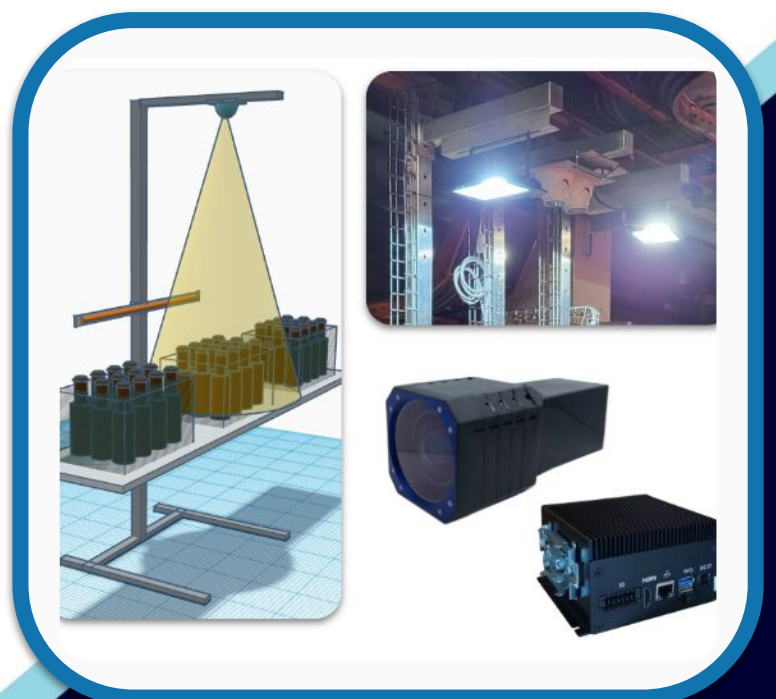
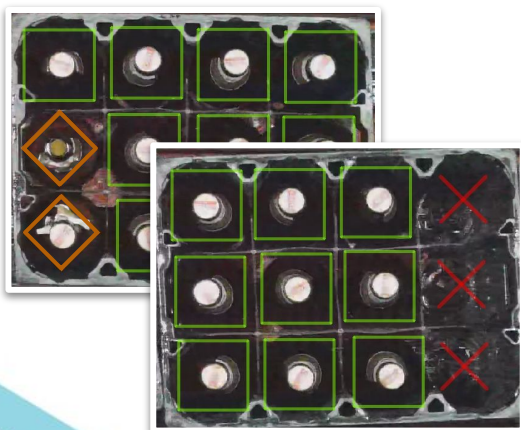
Handles up to 7,200 crates/hour, reduces manual interventions, enhances traceability, and ensures precise quality control. Delivers real-time insights, supports seamless adaptability, and enables data-driven decisions for improved productivity.

Unique Selling Points

1. **Advanced Technology:** Combines cameras, computer vision, and AI for detailed inspection.
2. **Non-invasive Installation:** Overhead cameras eliminate conveyor belt integration.
3. **Brand Adaptability:** Automatically handles brand changes without manual adjustments.
4. **Real-Time Reporting:** Tracks production with detailed, shift-based, and daily reports.

Key Features

- Processes up to 7,200 crates/hour with high accuracy and LED lighting.
- Central image storage for audits and traceability.
- AI-powered detection of dirt, broken bottles, and foreign objects.
- Optional features include crate rejection, dual-lane support, and failover databases.



Market Comparison

	Other FCIs		Firststep.ai FCI	
Speed	3,600 - 6000 crates / hour	✓	7,200 crates / hour	✓
Lighting	Maintenance-free LEDs	✓	Maintenance-free LEDs	✓
Count number of crates	Yes	✓	Yes	✓
Count bottles in each crates	Yes	✓	Yes	✓
Sensor Technology	Camera + Sensors	⚠	Camera only	✓
Identification based on colour	No	✗	Yes	✓
Identification based on logo	No	✗	Yes	✓
Identification based on barcode	No	✗	Yes	✓
Bottle Height	No	✗	Yes	✓
Can crates Touch?	No	✗	Yes	✓
AI-powered Inspection	No	✗	Yes	✓
AI can handle unseen objects (e.g. dirt, broken bottles, foreign objects).	No	✗	Yes	✓
Rejector Integration	No	✗	Yes	✓
Brand changes without manual intervention	No	✗	Yes	✓

Client Success Story

Client: Anheuser-Busch (AB InBev Southern Africa)

Challenge: Frequent errors in human quality inspections leading to inconsistent crate quality and internal disputes over delivery and raw material quality.

Solution: Implemented the FirstStep.ai FCI, ECI and Closed Loop Rejection.

Result: Eliminated the need for human quality inspections, strengthened brand association with quality, resolved internal disputes over delivery and raw material quality, and significantly enhanced operational efficiency.

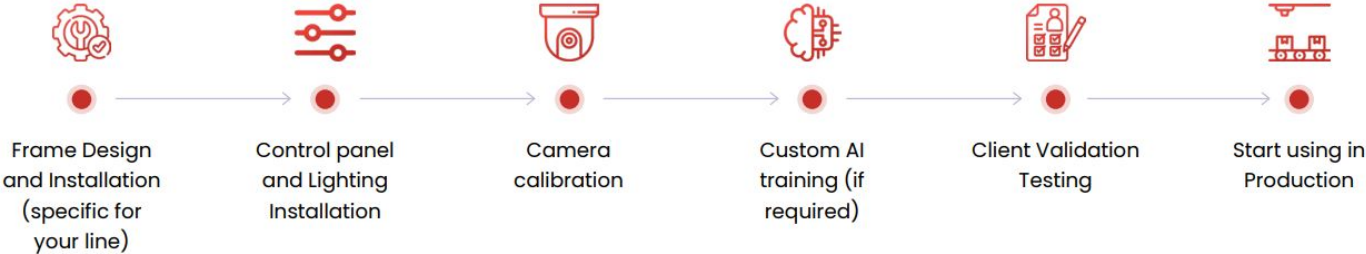
Quotes from client:

- "Results are incredible"
- "Project payback period is looking like days, not years!"
- "No one has seen rejection done without [physical] sensors or triggers"



Installation

Installation process



Our Current Implementation Partners



Our Current Hardware Partners



