



Application Kit: **Inspection**

Automates visual inspection and quality control tasks by combining a cobot arm with an industrial camera system. Improves consistency, captures digital inspection records, and reduces manual error in repetitive inspections.

IDEAL USE CASES:

- Electronics and PCB inspection
- Automotive and aerospace part validation
- Packaging verification (labels, seals, fill levels)
- Medical device and pharmaceutical inspection

WHAT YOU NEED:

Cobot Arm: 6-axis collaborative robot with precise movement and camera mounting point

Industrial Camera: 2D or 3D vision system with configurable lens and lighting setup

Lighting System: Dome, ring, or bar light with adjustable brightness and diffusion

Camera Mount: End-of-arm or fixed-frame camera mounting kit

Vision Inspection Software: Image processing software with part location, defect detection, and reporting

Part Presentation Fixture: Custom fixture or table to ensure consistent part alignment

Data Capture & Logging Tool: Optional integration with MES or QMS systems for audit traceability

Safety Equipment (Optional): Area scanner or light curtain if deployed in shared space

Training & Setup: 1 day on-site setup, vision calibration, and software training

SPECIFICATIONS:

Camera Type: Monochrome or color (2D, optional 3D structured light)

Detection Capabilities: Surface defects, alignment, fill level, label accuracy, part presence

Accuracy: ± 0.05 mm (application dependent)

Reach: 850–1300 mm

Cycle Time: 2–8 seconds per inspection task

Power Requirements: 110–240V AC

PACKAGING OPTIONS:

Standard: Cobot + 2D camera + basic lighting + vision software

Plus: Adds adjustable lighting setup and part fixture

Premium: Includes 3D camera option, MES/QMS data logging, and integrated scanner

