

DWFritz Defect Detection System

Smart Inspection in Seconds

Deep learning defect detection system identifies surface imperfections with speed, reliability and precision

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Featuring deep learning technology, the DWFritz Defect Detection System quickly identifies defective or anomalous parts, helping manufacturers reduce costs and meet consumer quality expectations.



Defect Detection System - Front View

Key Benefits

- Flexible inspection system combines advanced machine vision with deep learning algorithms
- Surface defect detection distinguishes desired features from anomalies while tolerating natural variations in complex patterns
- Detects defects on glossy, shiny or rough surfaces
- Easy setup and operation with automatic orientation of part for inspection
- Provides precise part placement without marring the part surface
- Rapid inspection part programming allows for efficient setup of different part configurations
- Identifies production defects in real-time, enabling adjustment of upstream processes to reduce waste
- Available as a standalone system or as an option on other DWFritz metrology and assembly systems

Key Features

- High powered GPU image processing system
- High resolution camera with global shutter optimizes field of view and measurement precision
- Custom multispectral lighting and strobe controller
- Custom fixturing and part handling capabilities

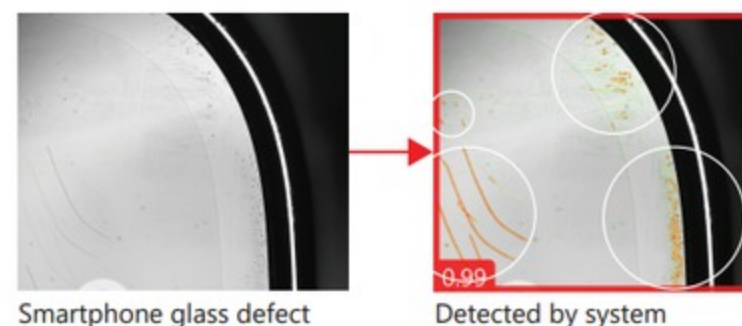


Defect Detection System - Side View

Innovative Artificial Intelligence

While traditional machine vision systems use complex rules-based algorithms and require precise defect definitions, the deep learning software learns from images of good and bad parts, reducing the time needed to specify defects and respond to changing requirements. Combined with advanced robotics, custom multispectral lighting and custom fixturing, the DWFritz Defect Detection System helps improve product quality while reducing manufacturing and warranty costs.

[PRODUCT BRIEF](#)



Applications



Automotive

- Powertrain Components
- Gears
- Cams
- Pistons
- Assemblies
- Gasket Surfaces



Consumer Electronics

- Smart Phones
- Tablets
- Electronics



Medical Devices

- Prosthesis
- Surgical and General Instruments
- Medical Implants
- Dental Implants
- Distractors

Key Specifications

Work Volume	203 x 135 x 6 mm (L x W x H)
Options	Barcode reader

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Resources

[Download DWFritz white papers](#)