



Fast-Learning. Real-Time Identification.
Accurate, Adaptable, Affordable.

visit www.mindtrace.ai to learn more



Computer Vision for Manufacturing Defect Detection

ABOUT MINDTRACE

- Mindtrace develops and delivers AI technology that is **integrated into the automation equipment of industry leaders such as Paslin**, to provide parts manufacturers with an end-to-end defect detection solution.
- Mindtrace's Brain-Sense Computer Vision technology platform delivers 95%+ detection accuracy that eliminates defect escapes, reduces costs and improves productivity.

FEATURES AND BENEFITS



Immediate
Value



Fast
Payback



Reduced
Overhead Costs



Full
Implementation



Versatile &
Transparent



Flexible
Deployments



Actionable
Analytics



Real-Time
Answers



Affordable

CASE STUDY

Problem

A global leader in automotive seating systems needed to reduce the bottlenecks, inaccuracies, inconsistencies and high costs of manual weld inspections.

Requirement

An integrated, AI-Enabled quality inspection solution that is fully automated and fully eliminates manual inspection.

Solution

Mindtrace partnered with a leading automation company to provide a fully integrated platform.

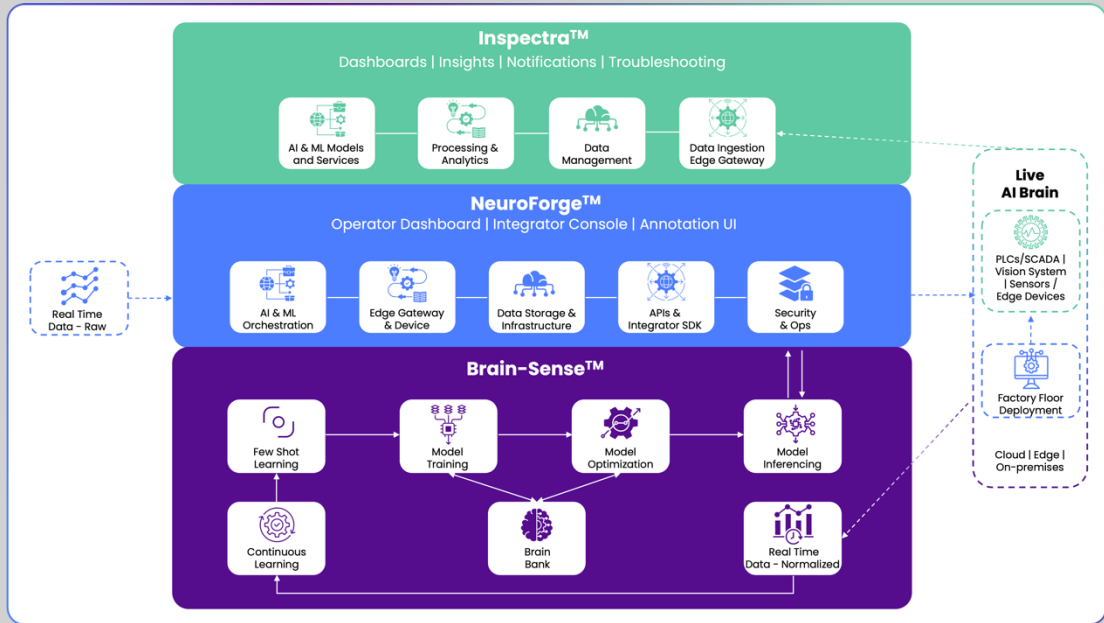
In just over 12 weeks, using on average 20 training images per defect type, Mindtrace implemented an automated, 24/7, end-to-end AI defect detection solution that eliminated inconsistencies, increased cycle times by 80%, and improved defect detection accuracy to 98% (Gage R&R score).

"Mindtrace saved us more than \$100k/year on a single line."

– John (Plant Manager)

MINDTRACE SMART MANUFACTURING PLATFORM

AI technology is a critical part of Smart Manufacturing automation, but it is not the total solution. In manufacturing settings, technology also needs to be integrated into production line equipment, trained to recognize customer-specific defects and provide actionable analytics that drive improvements. Mindtrace understands these requirements and provides a complete smart manufacturing solution that delivers unrivaled accuracy, fast up-times, and lasting value.

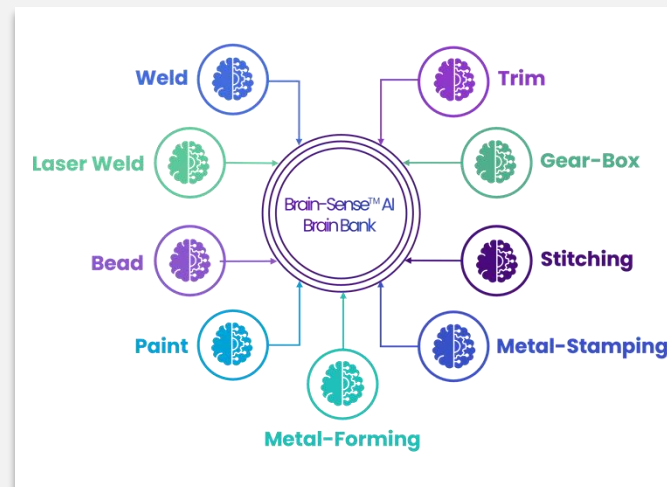


PROJECT TIMELINE

A complete Precision Defect Detection Solution deployed within weeks, not months.

- 01 Briefing and Data Normalization** – Mindtrace's implementation team works closely with the client organization to curate defect data and normalize for accurate "ground truth". *Average Time: 1 Week*
- 02 Brain Development** – Utilizing Mindtrace's Brain-Sense™ Platform to deliver client use case specific AI Brains. *Average Time: 3 Weeks*
- 03 Brain Deployment** – Your AI Brain is deployed using dedicated Cloud, on –prem servers or edge devices. *Average Time: 1 Day*
- 04 Post-Deployment Monitoring** – The brain continuously improves, learning from edge cases, manufacturing abnormalities and update AI brains for enterprises. *Average Time: Ongoing*

BRAIN BANK



The core of Brain-Sense™ is a "brain bank" of pre-trained defect detection uses cases. During implementation, Mindtrace engineers and manufacturing experts customize the platform to individual customers' use cases.