

Visual inspection of metal-based objects

Application of Image Processing and Deep Learning in inspection of "dirt, scratch, print defect" etc.

- Image input



- **Objects to be inspected**
Metal based and **printed**



To acquire multiple images with multiple light source settings so that each feature can be easily identified

- Images for checking print defects
- Images for checking scratches and dirt

Image for
Inspection of
Print Defects



Conforming (Good)
master data



Inspection Data ①

Registration
&
Difference Comparison
Data

Defect judgment by image
processing
(Some judgments might be
made by Deep Learning)

※ Deep Learning technology might apply through the
process of registration and print defect judgment in the
future.

Image for
Inspection of
Scratches



Inspection Data ②

Scratch data



Defect judgment by
Deep Learning

Deep Learning
recognition engine

Deep Learning
Learning Engine

Learning data