



Quick Response System

Company Introduction

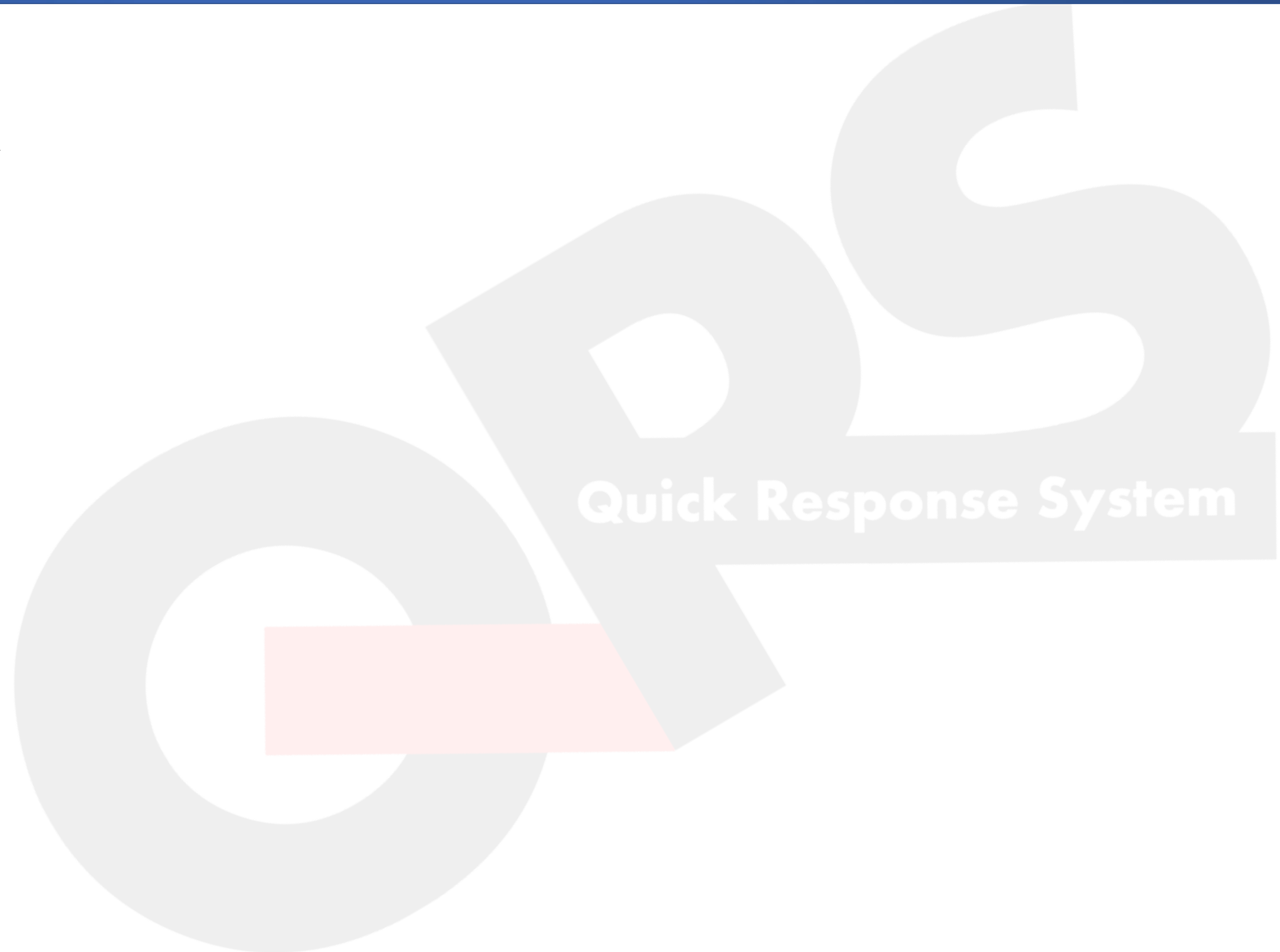
<https://www.qrsystem.co.kr>

I. Company History

II. Why QRS?

III. Technology

IV. Business



COMPANY HISTORY



◆ President

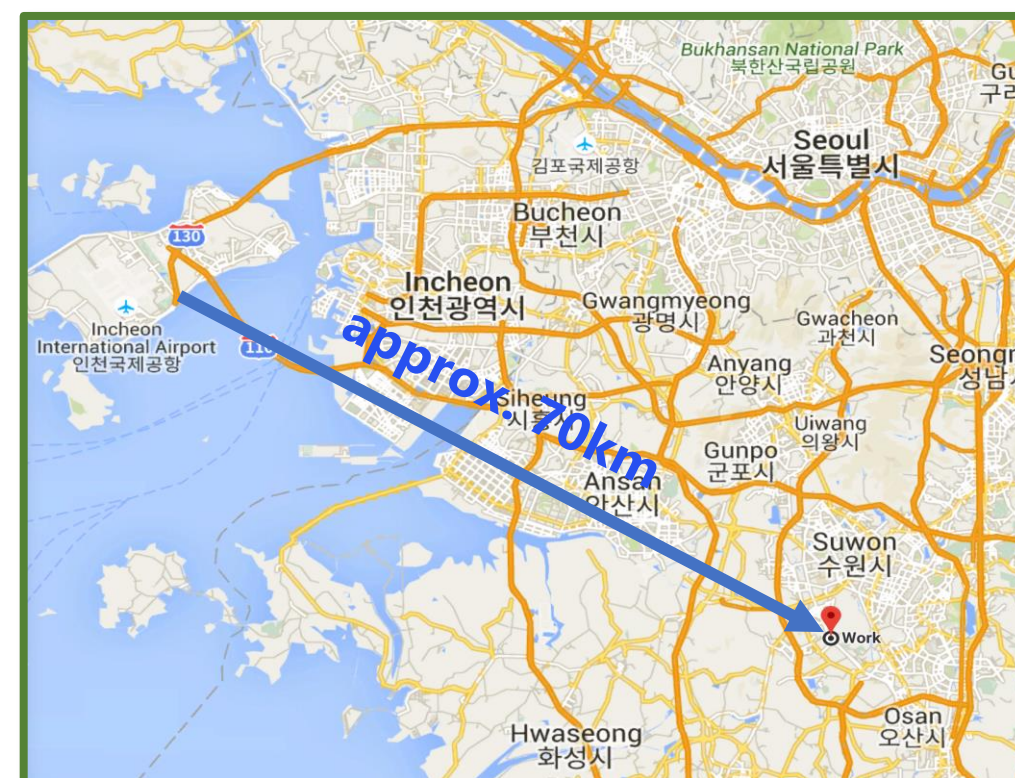
Mr. Hwang (Hwang Nam Gu)

◆ Address

11, Beayangnam-gil 50beon-gil, Hwaseong-si,
Gyeonggi-do, Republic of Korea

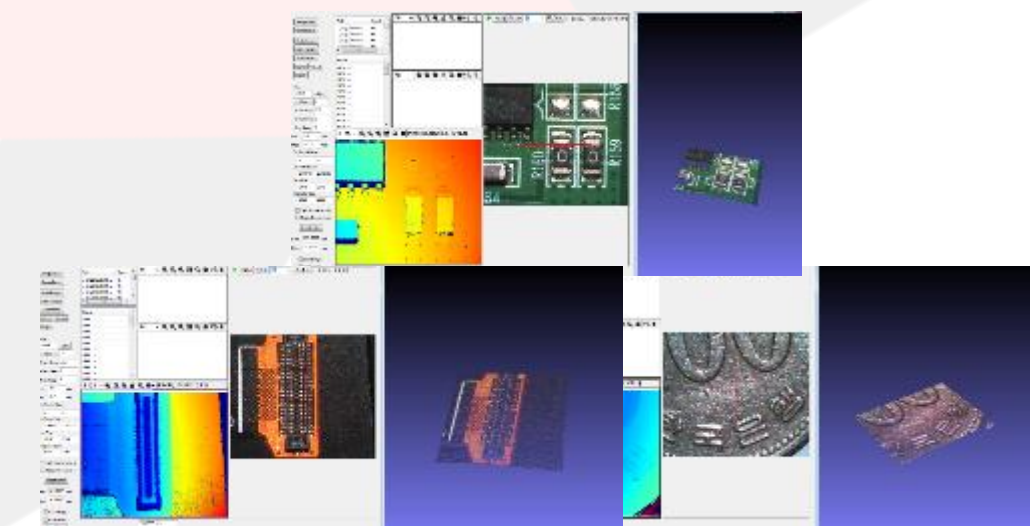
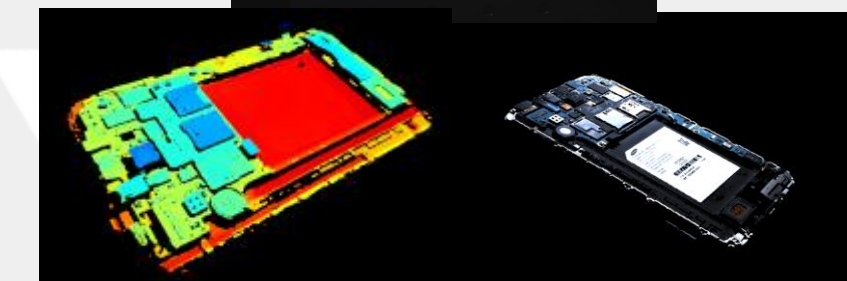


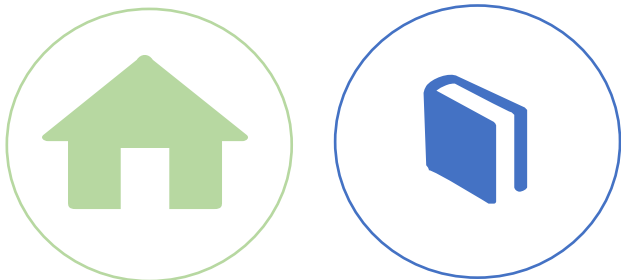
Quick
Response
System



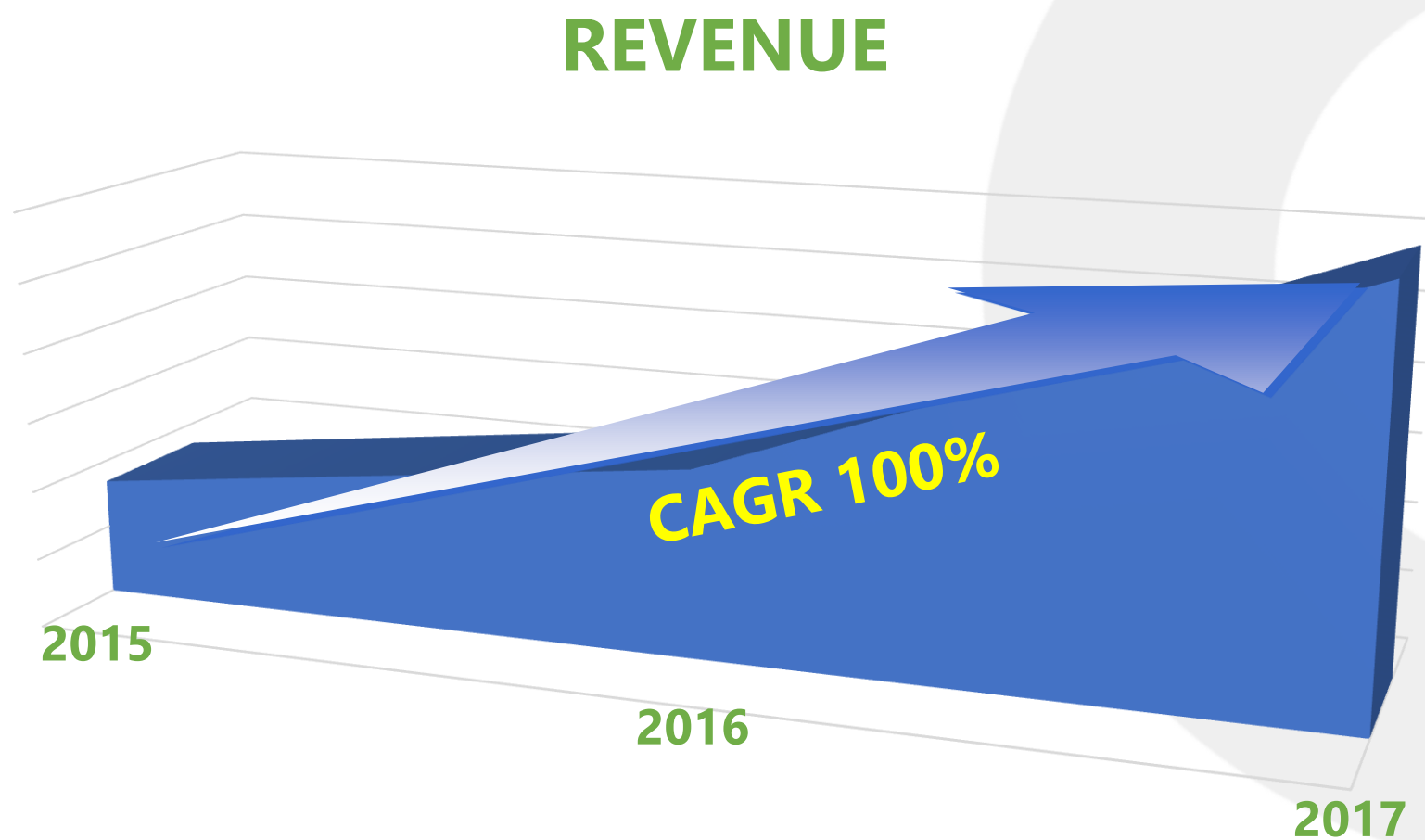
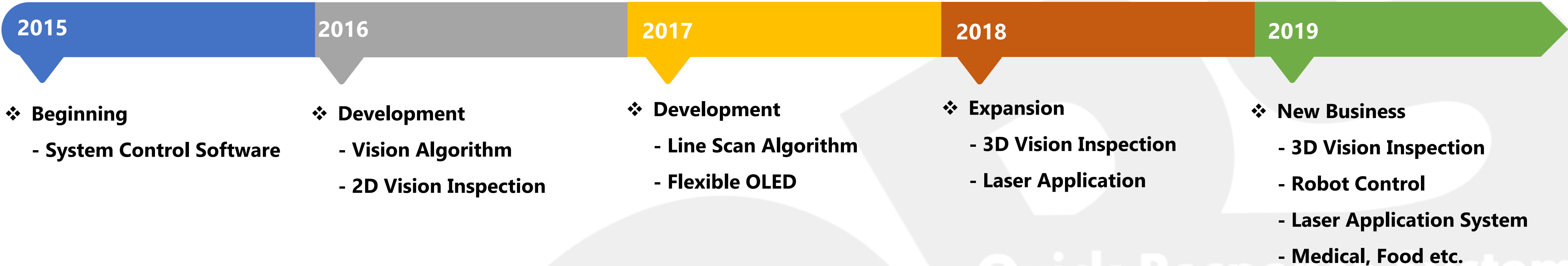
◆ Business Item

Laser Application System
Vision Inspection System
Machine Vision System
System Control S/W
HSMS (CIM)





Jan. 2015



Why QRS?



Frontier Spirit

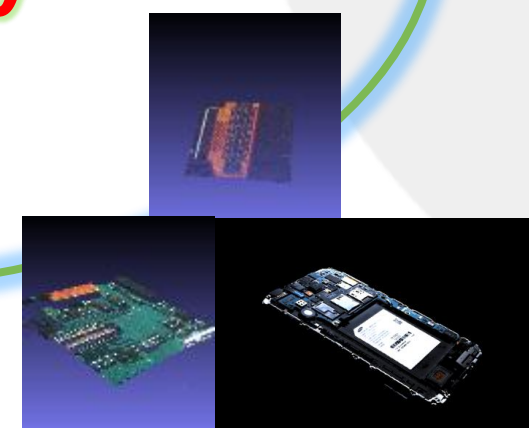
Fast Response

System Solution

Unique Technology

Advanced
Technology

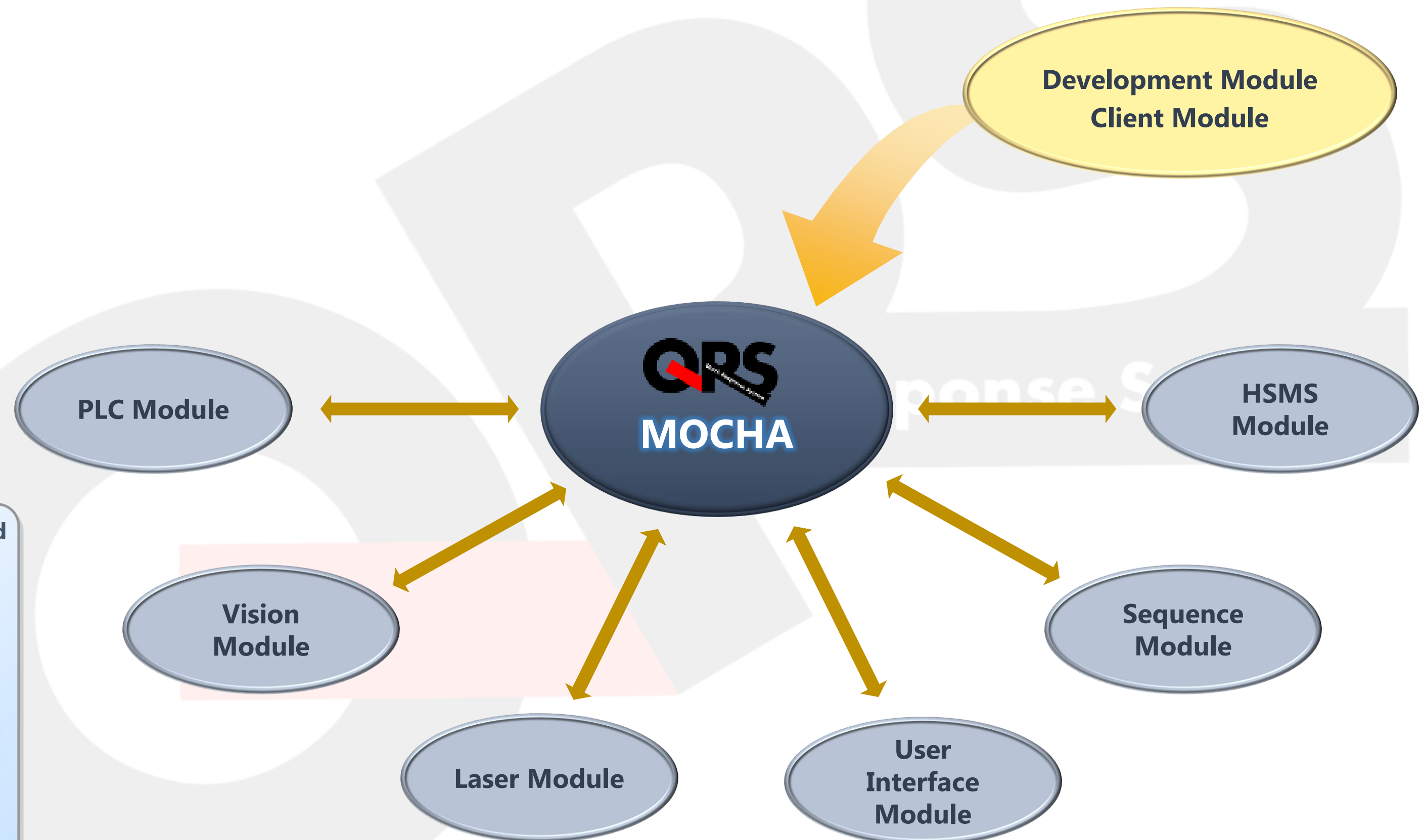
Experience
& Know-how



ADVANTAGE of QRS' SW

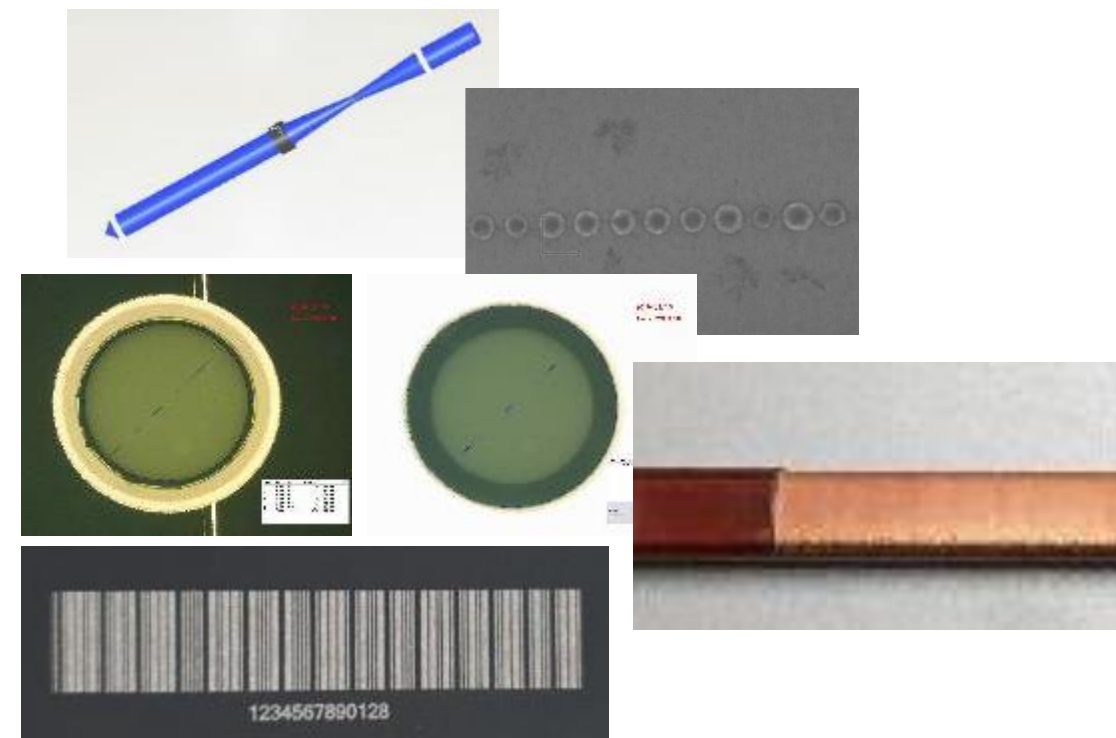


- ◆ Modular architecture
- ◆ TCP/IP communication method
- ◆ Data management using shared memory
- ◆ Easy to divide the work for fast development
- ◆ Easy to maintenance

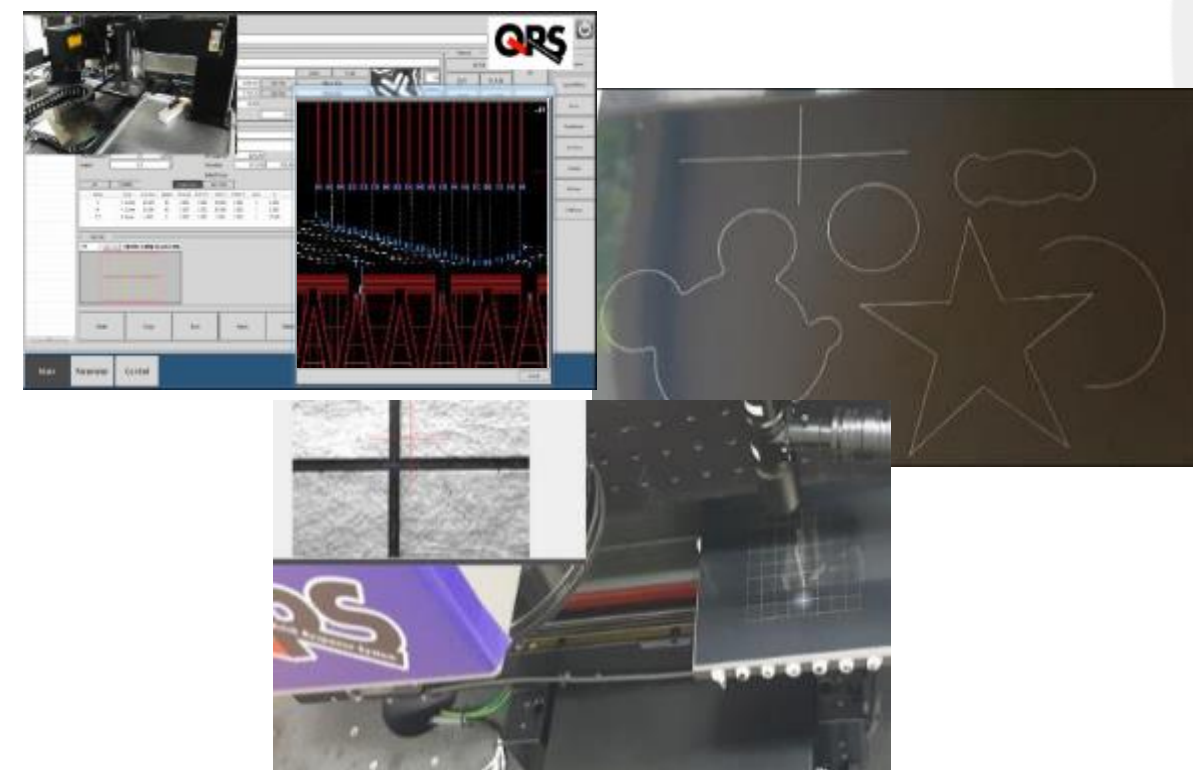


❖ Element Technology

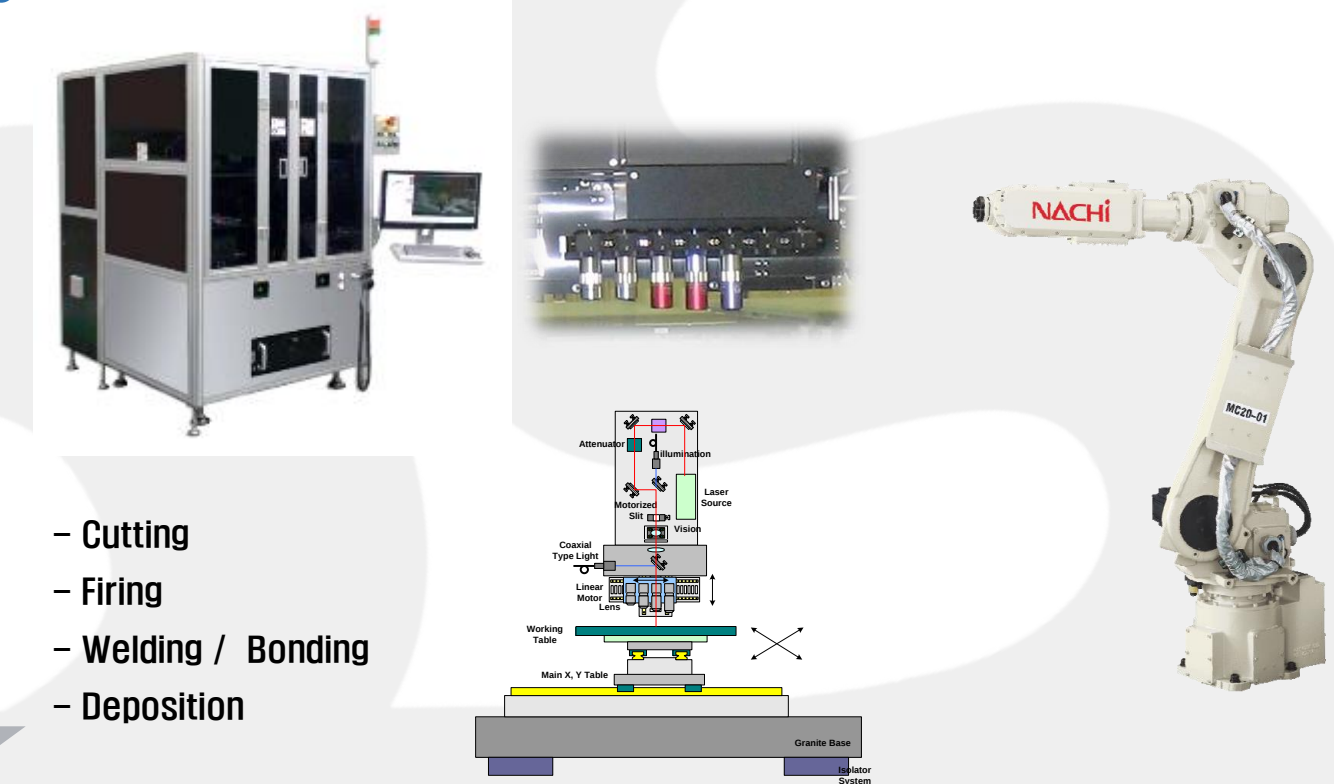
◆ Laser Application



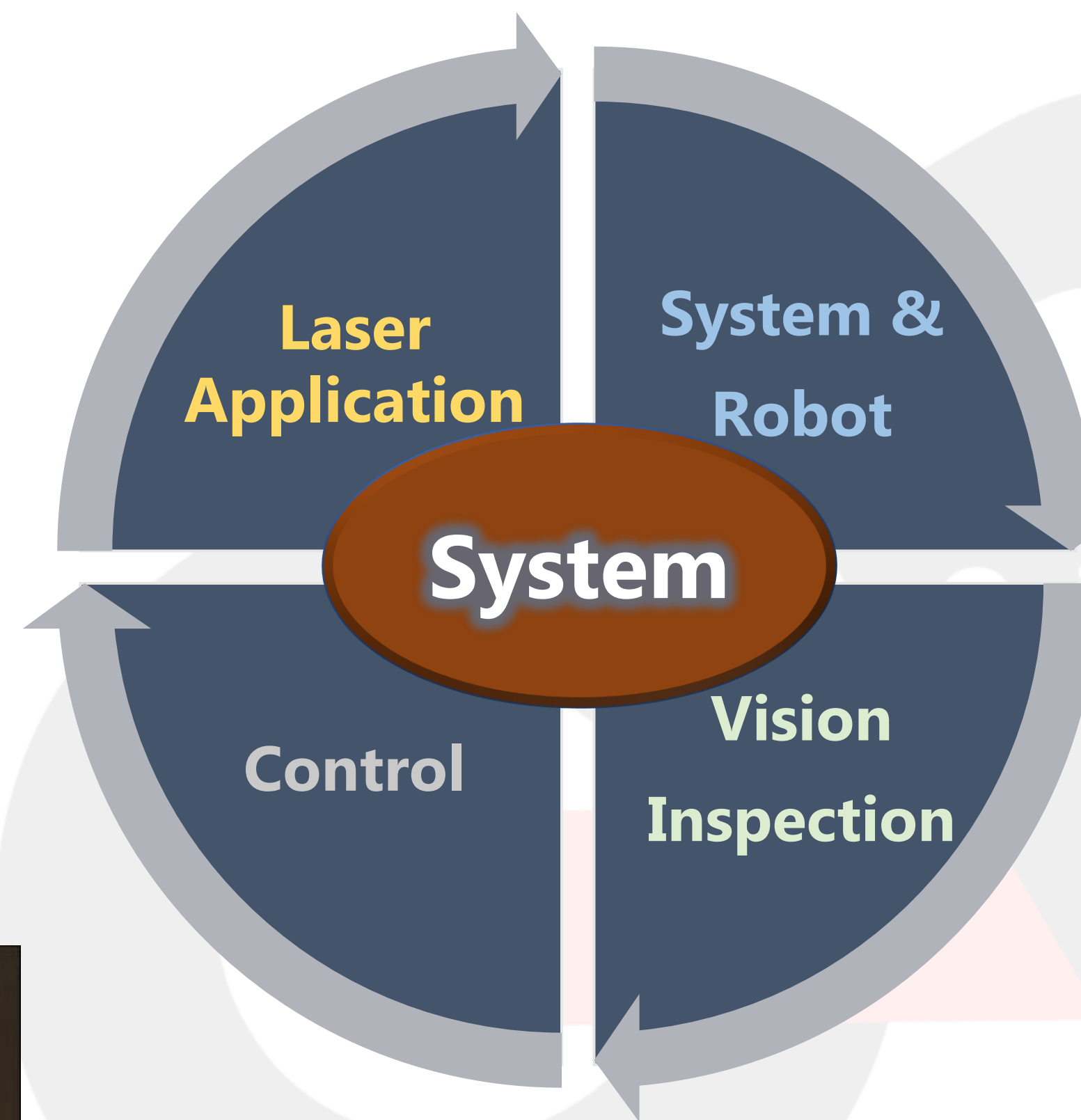
- ◆ G-code Process
- ◆ DXF Converting
- ◆ Free Shape Cutting



◆ System & Robot

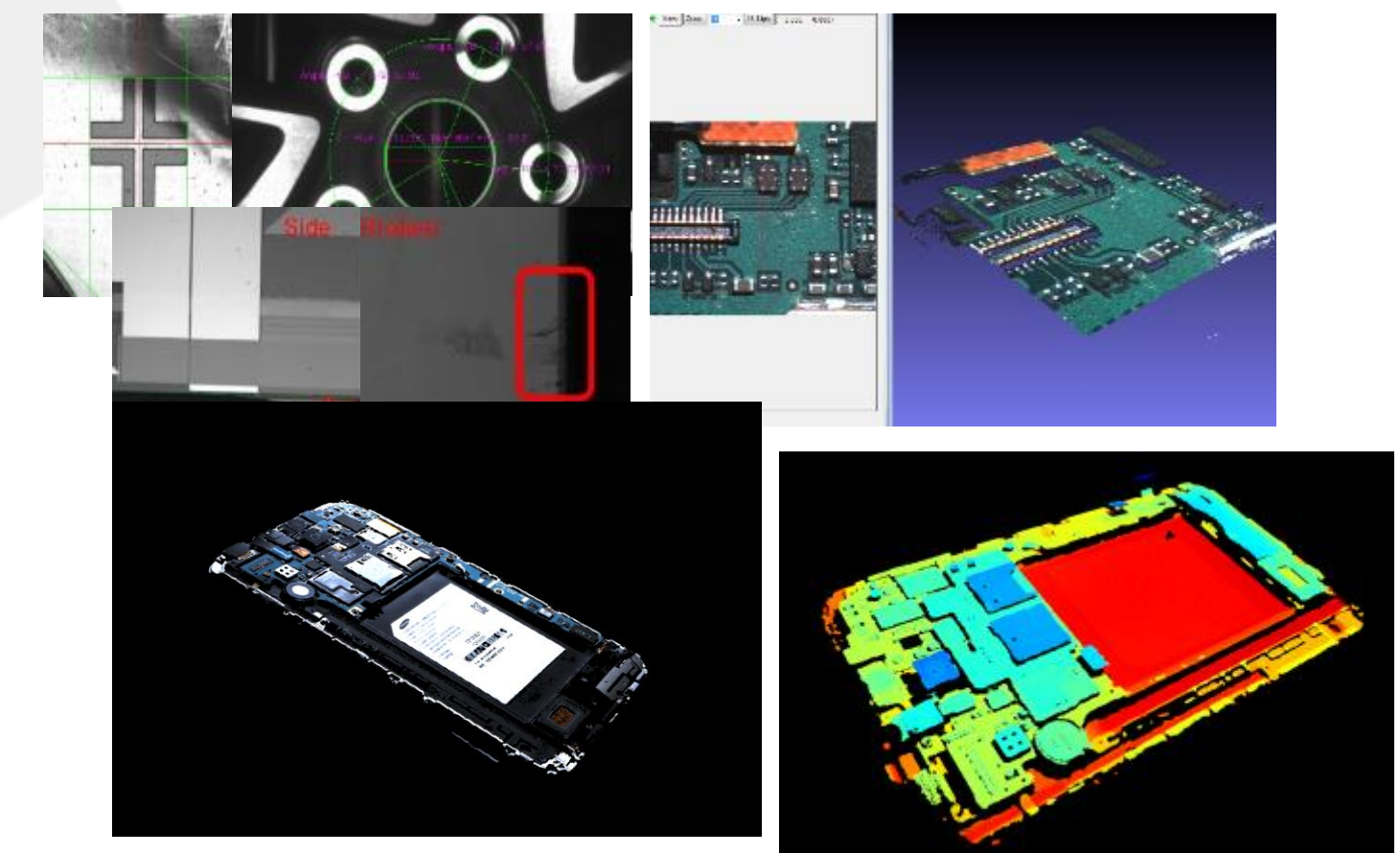


- Cutting
- Firing
- Welding / Bonding
- Deposition



◆ Vision Inspection

◆ Vision Alignment



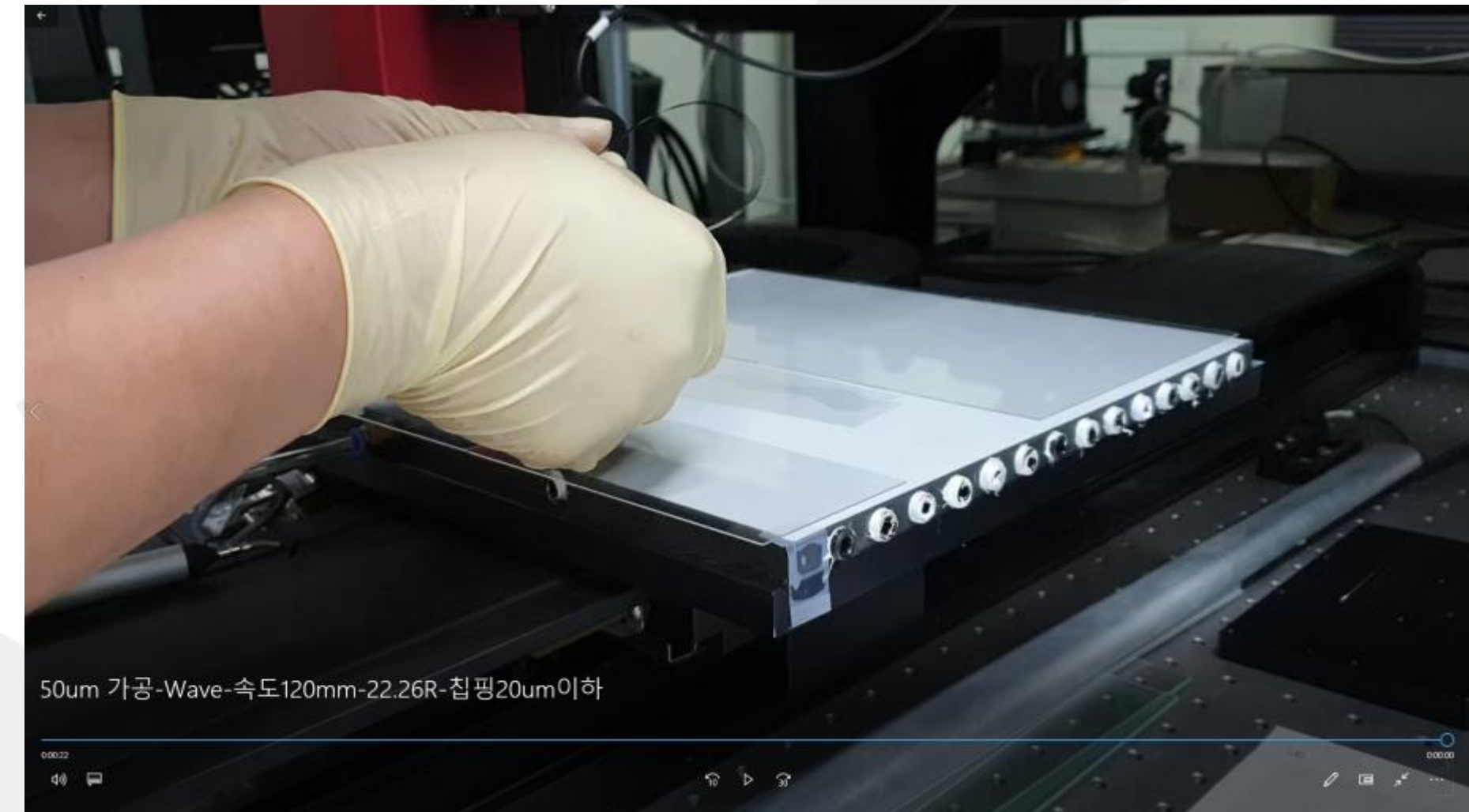
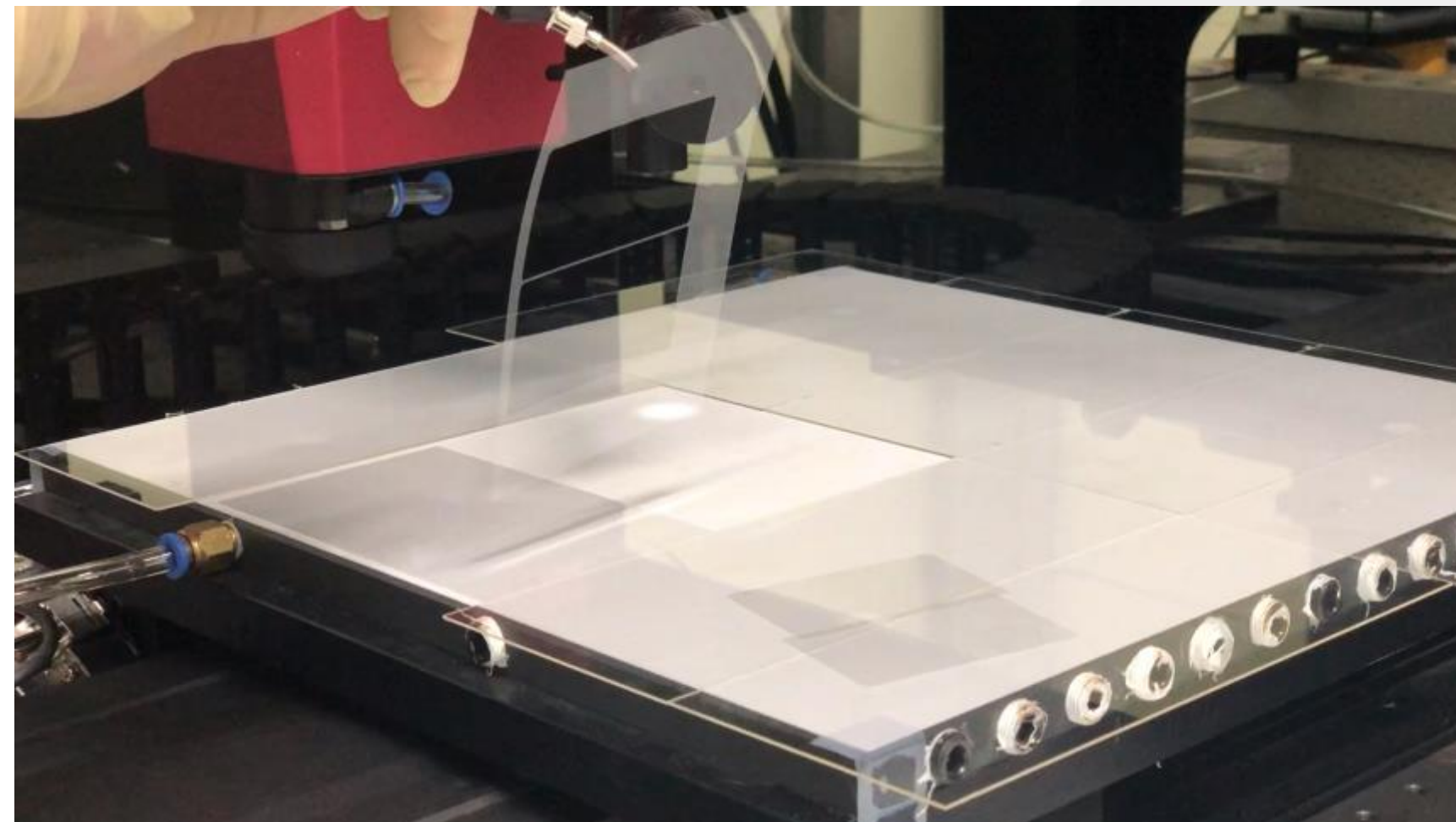
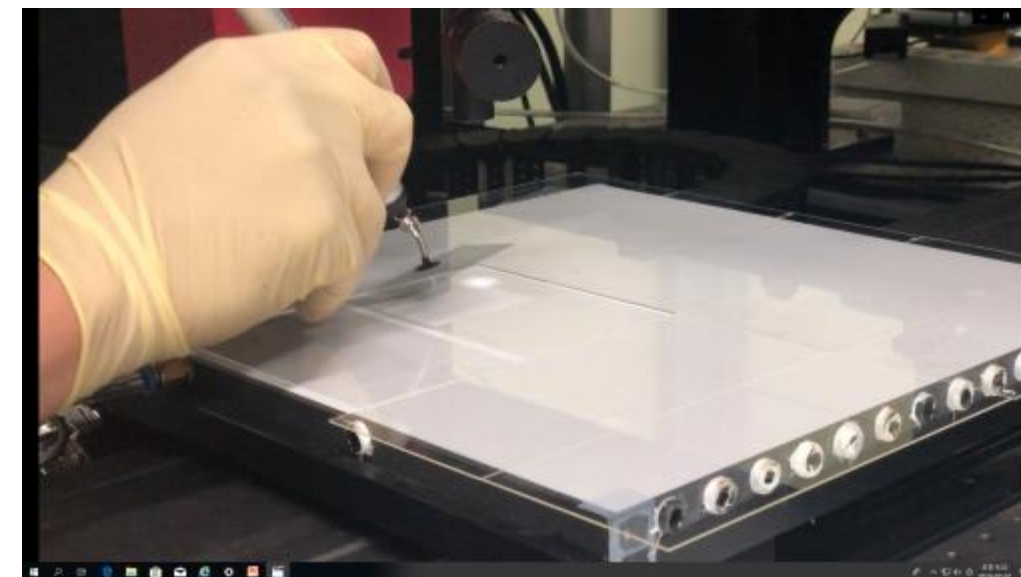
❖ System Control

◆ Application

- Laser Cutting for **UTG(Ultra Thin Glass >0.05t)**

➤ Main Function

- Laser Process (Pico Second)
- 1 Scan Cutting
- Total System Control



❖ System Control

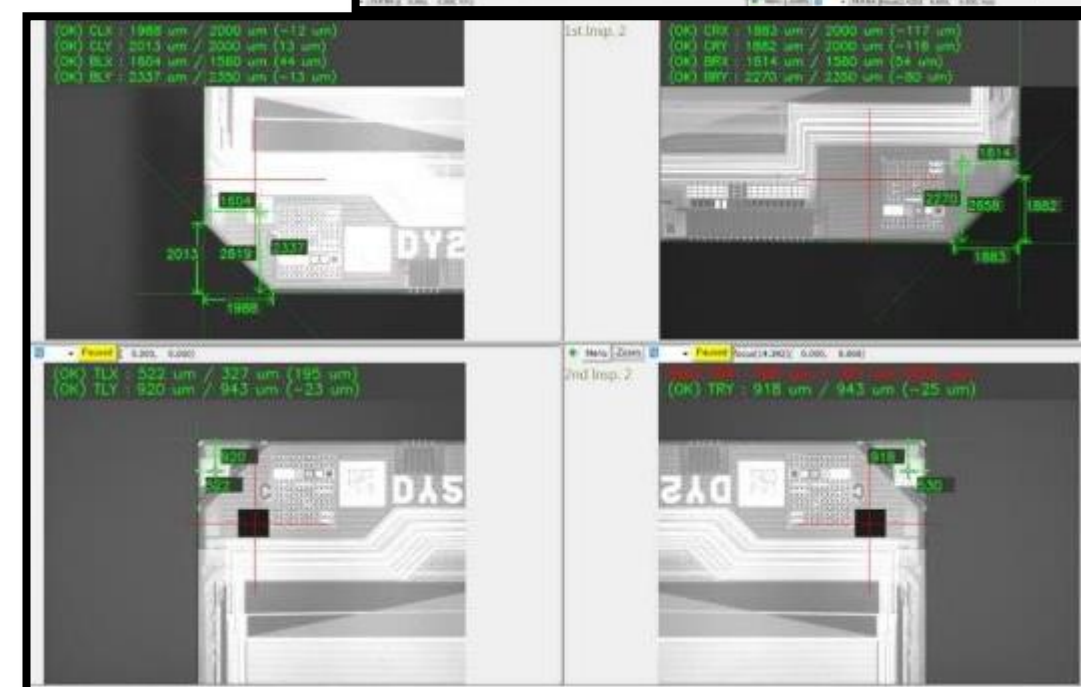
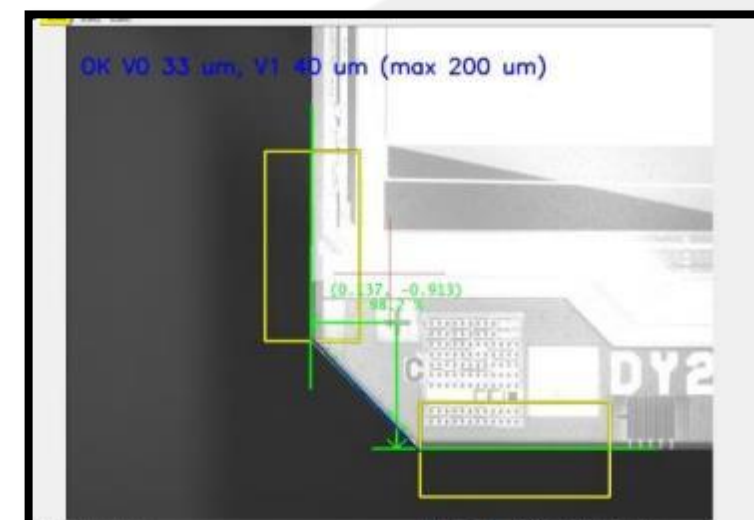
◆ Application

- Laser Cutting for Flexible OLED



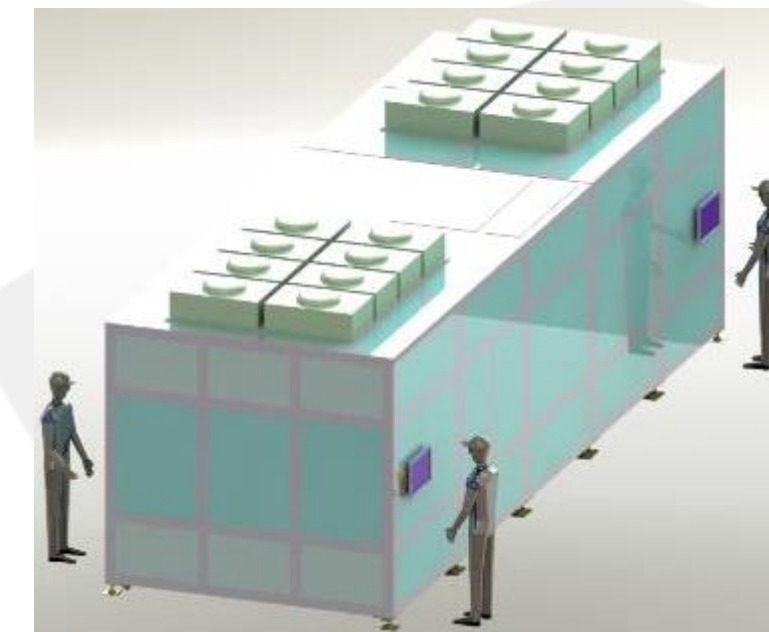
➤ Main Function

- Line Scan Alignment for Overlap
- Laser Process (CO2 & Femto)
- Vision Inspection
- Total System Control



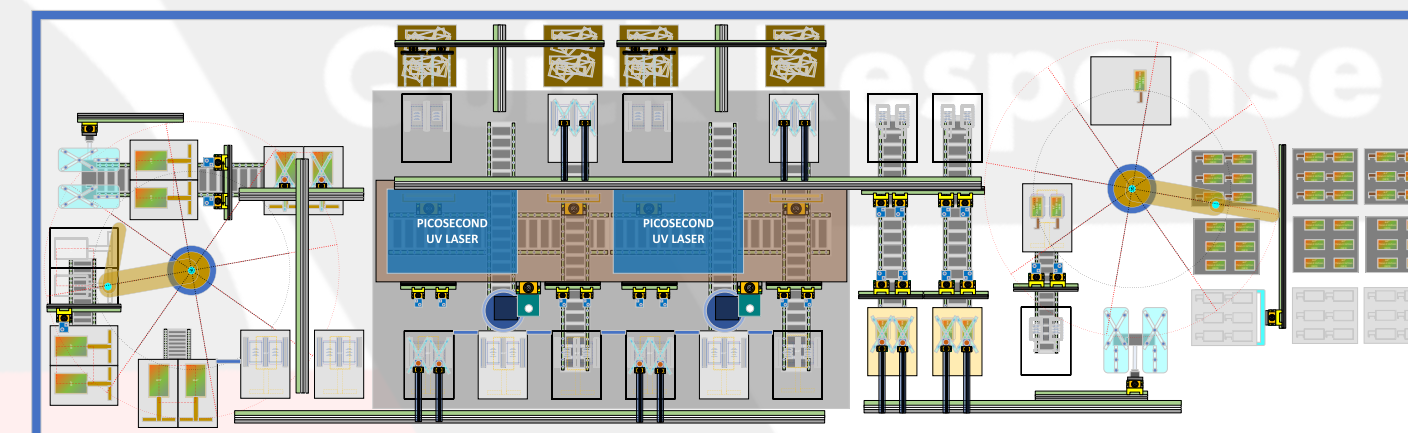
◆ Application

- Flexible OLED Module Cutting



➤ Laser Application Item

- Shape Cutting
- Chamfer Cutting
- Patterning



➤ Main Function

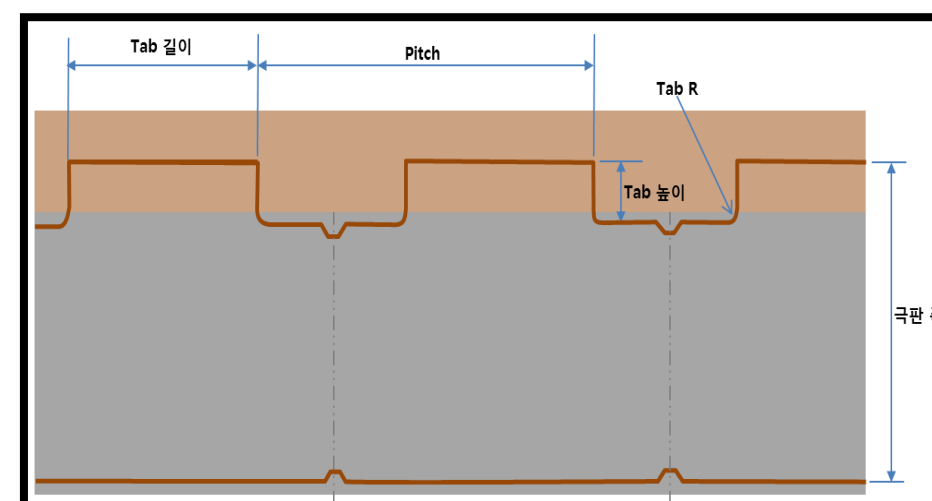
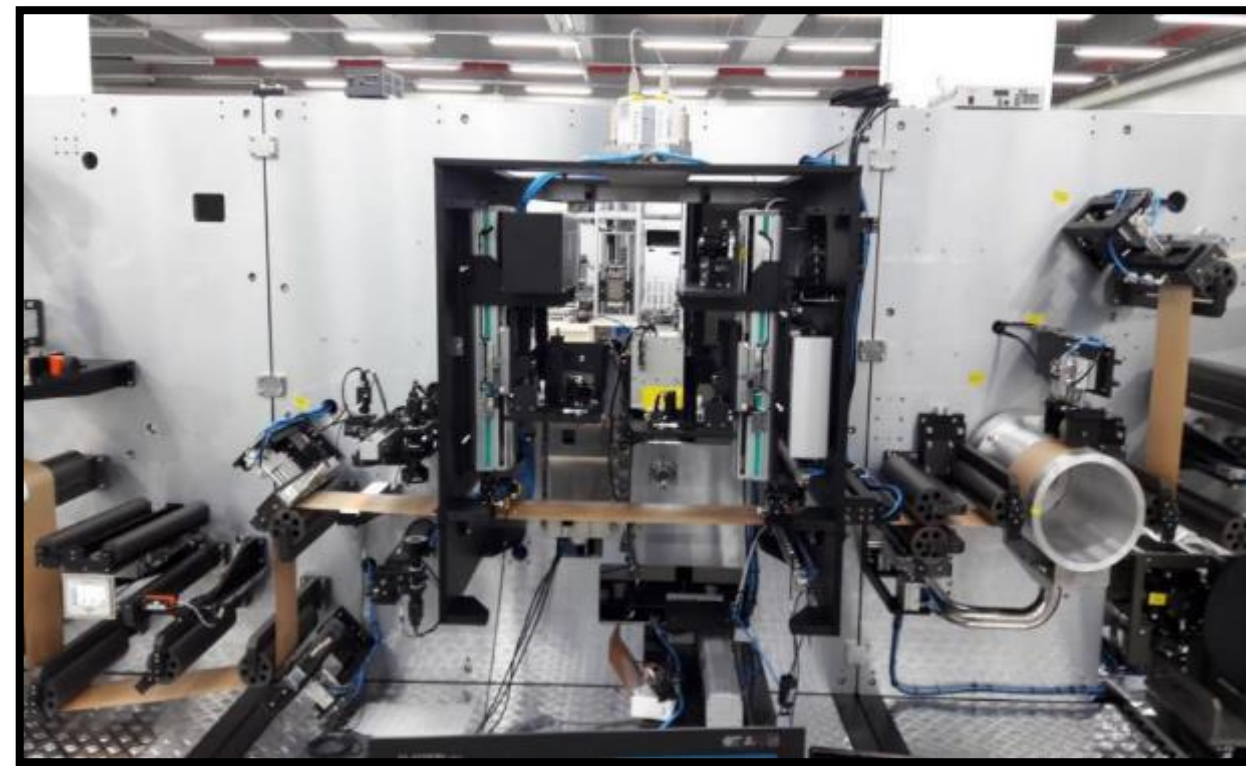
- Vision Alignment
- Vision Inspection
- Laser Process
- LMS(Linear Motion System) Control
- MOTF
- Total System Control



❖ System Control

◆ Application

- Metal Foil Laser Cutting for 2nd Battery



- Notching Speed : 700mm/s
- Notching Tab Size Precision : $\pm 0.1\text{mm}$
- Notching Coating Width Precision : $\pm 0.1\text{mm}$
- Notching Pitch Precision : $\pm 0.1\text{mm}$

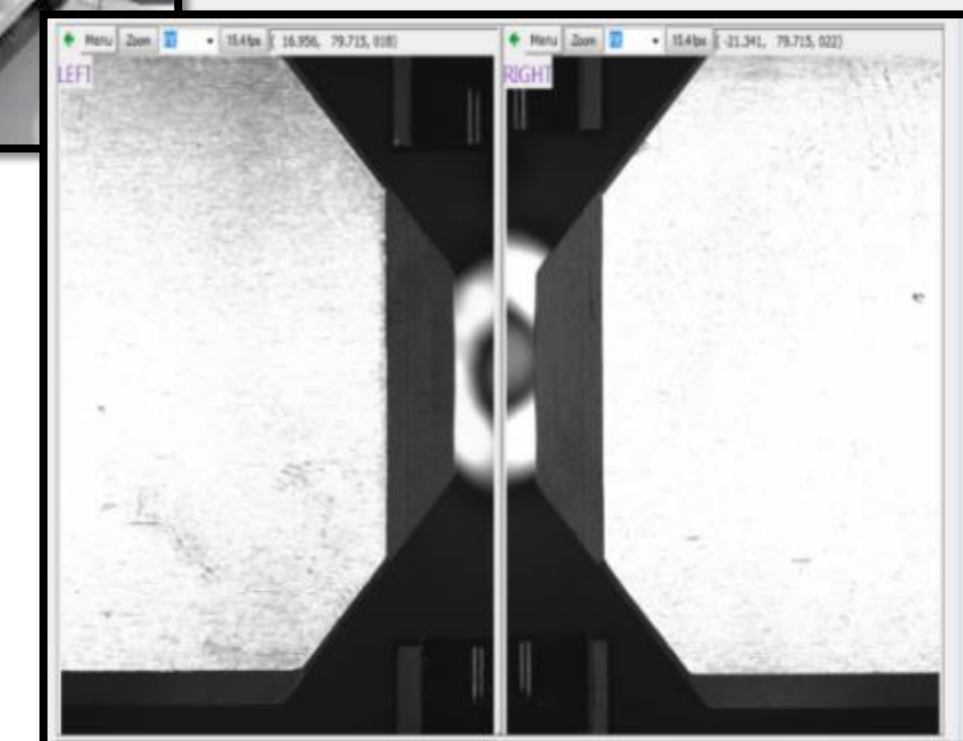
- **Main Function**
 - Edge Alignment
 - Notching Laser Processing
 - Line Scan Process Inspection
 - Defect Inspection
 - Point Punching

◆ Application

- Laser Welding for 2nd Battery



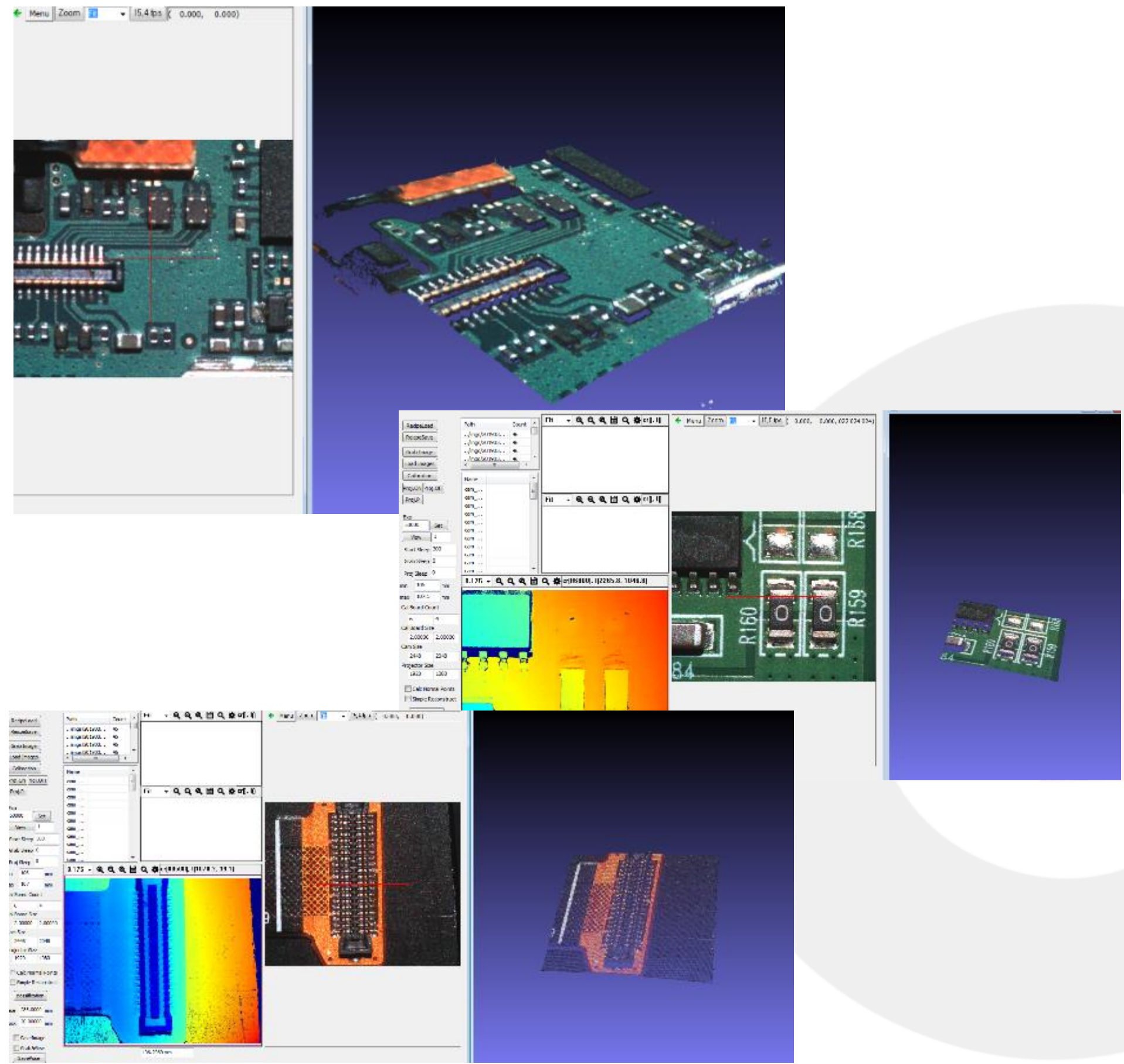
Processing accuracy : $\pm 50\mu\text{m}$



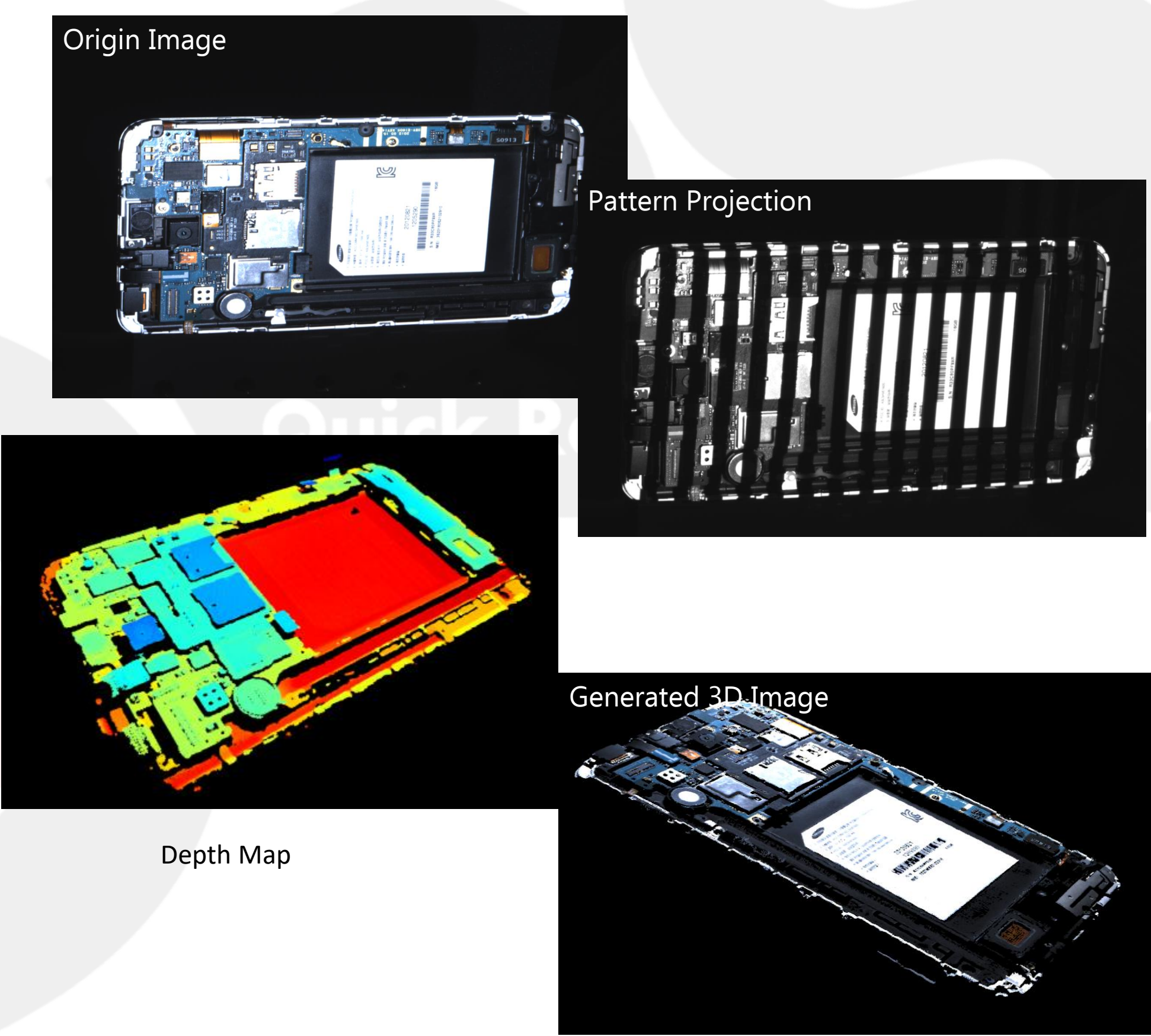
- **Main Function**
 - Auto Trace Welding
 - Vision Auto Trace Alignment
 - 1st Laser Process
 - 2nd Laser Process

❖ Vision

◆ 3D Inspection - SMT Inspection



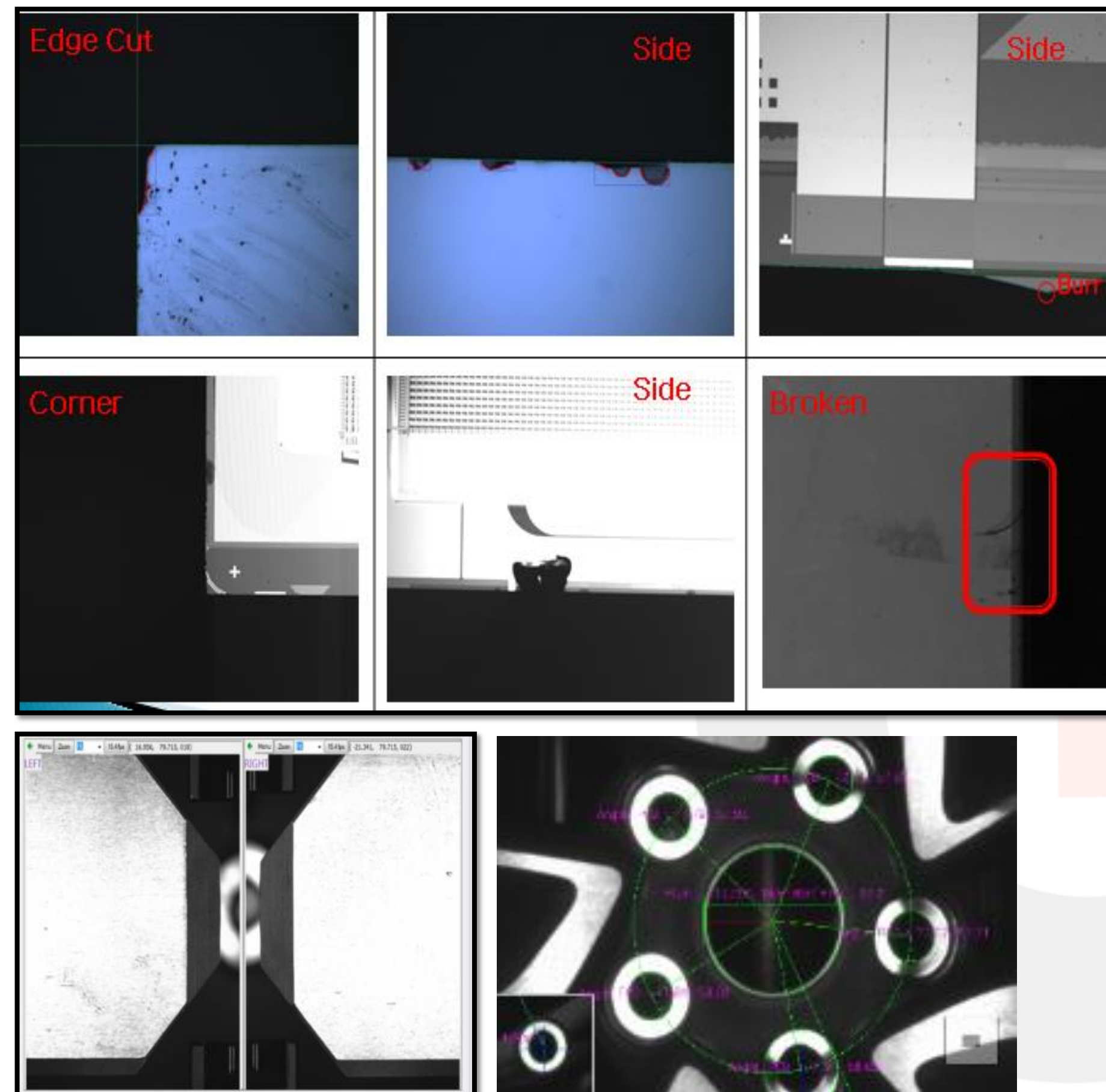
◆ 3D Inspection - Mobile Phone



❖ Vision

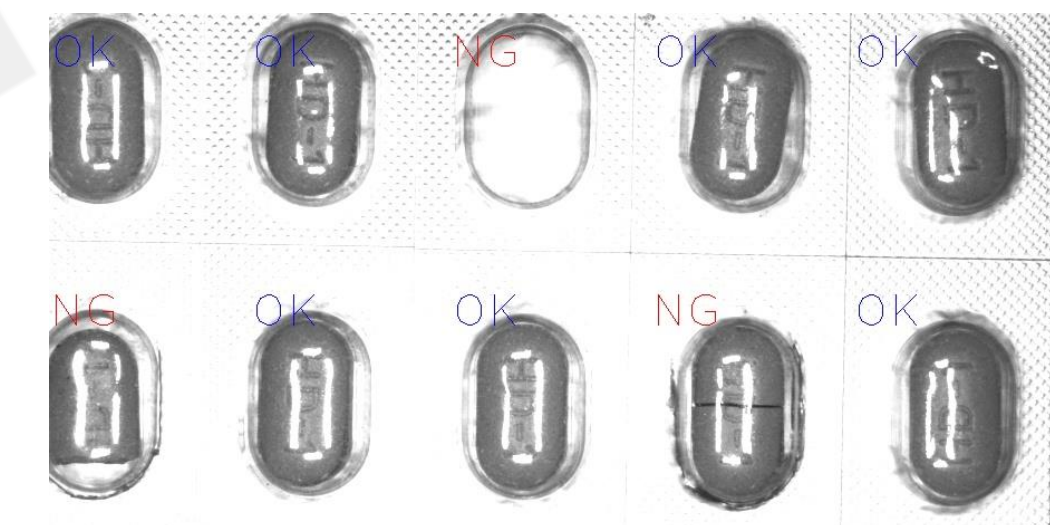
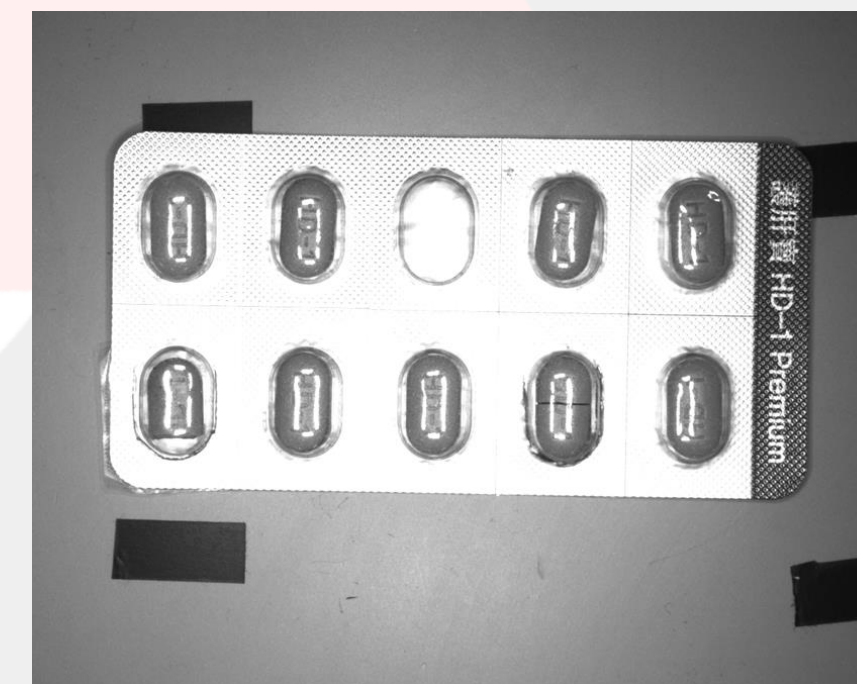
◆ 2D Inspection

- Defect / Size / Position



◆ 2D Inspection

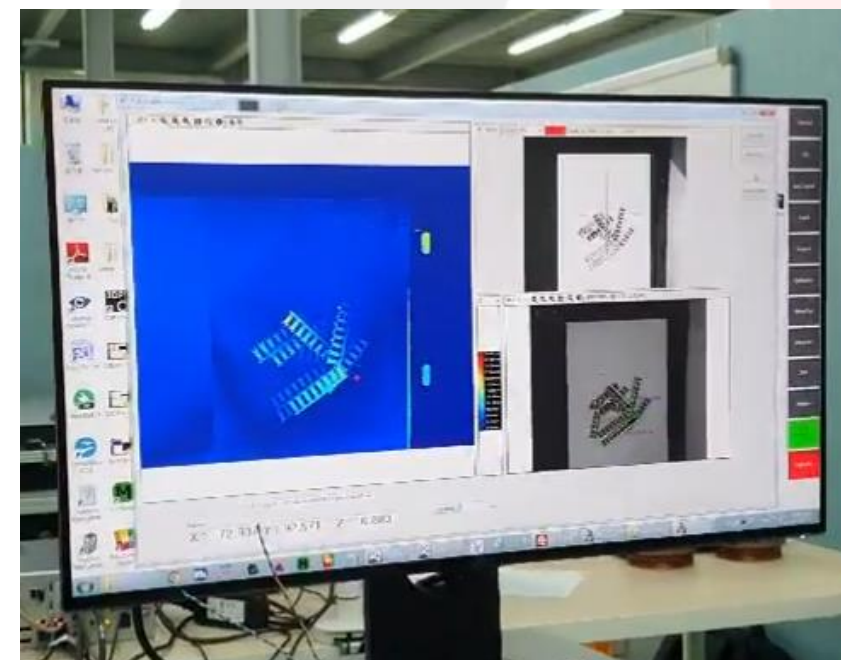
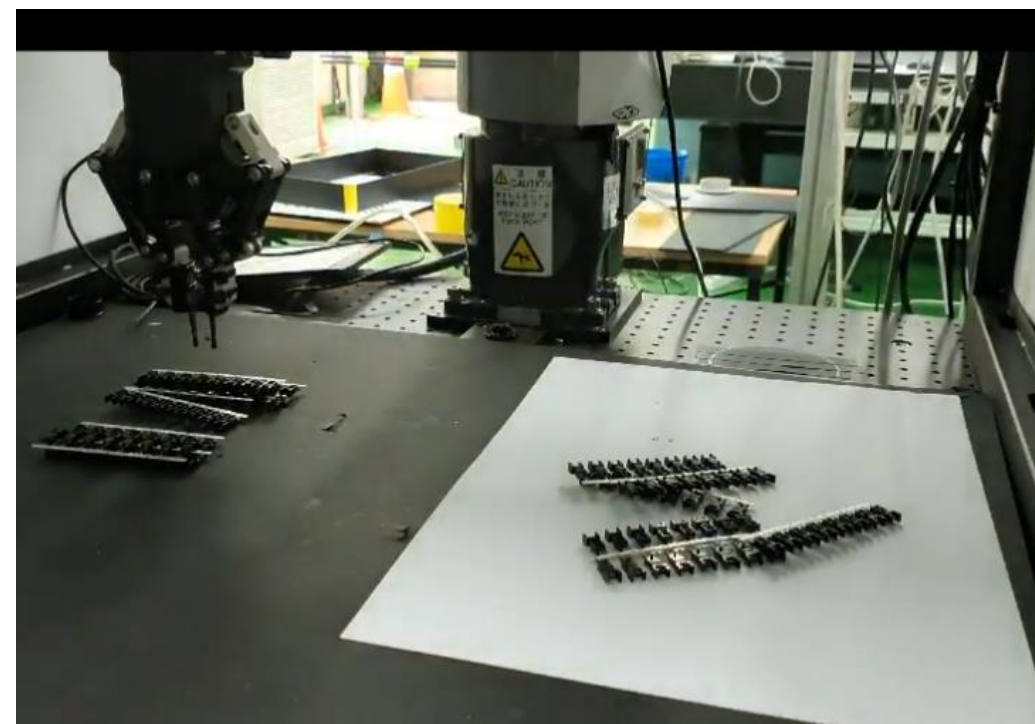
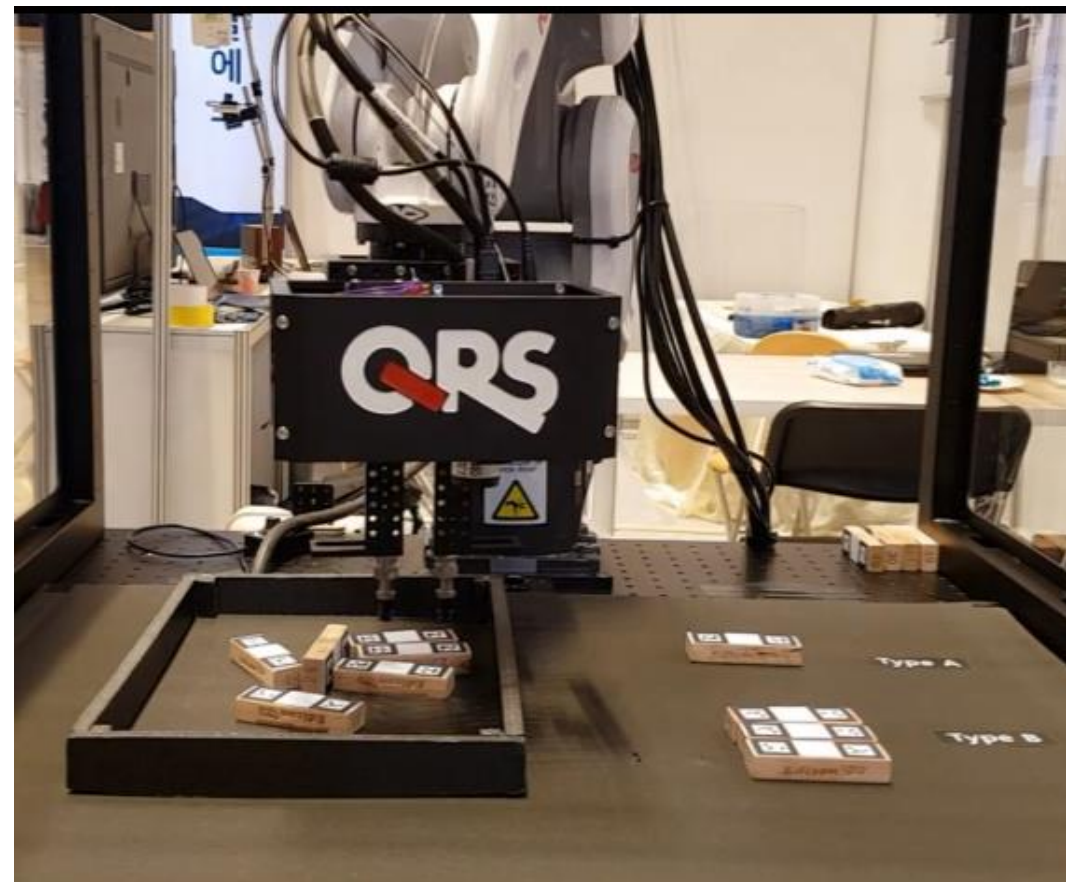
- Medical



❖ Robot

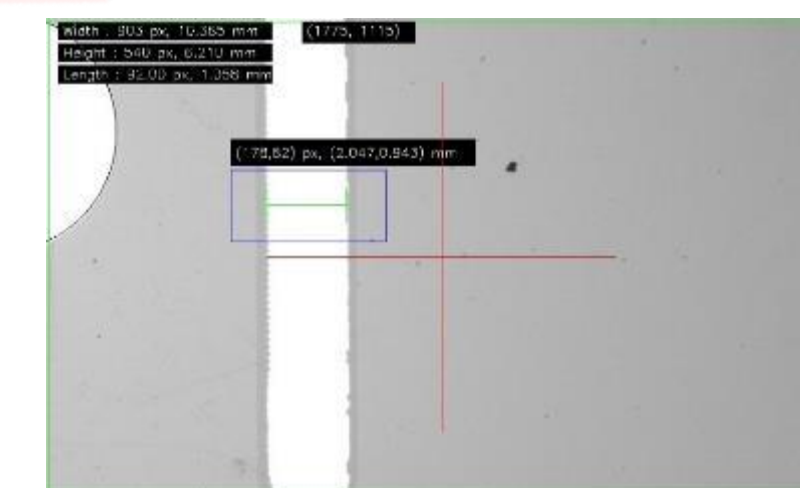
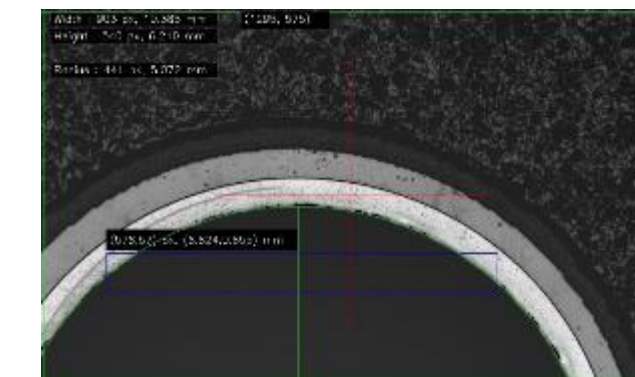
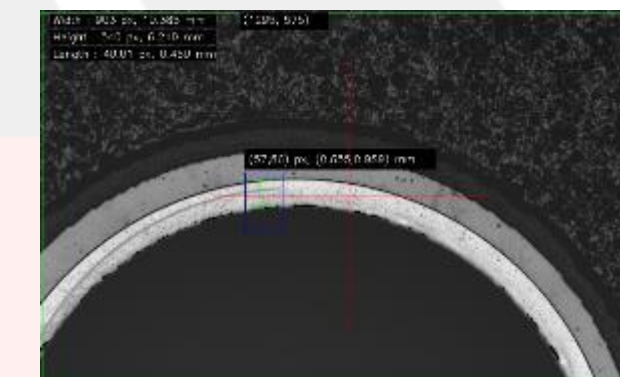
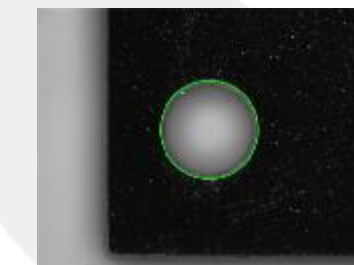
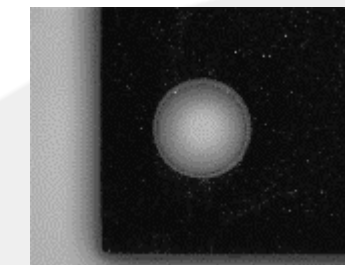
◆ Robot Handling

- Robot Handling with 3D Inspection



◆ Others

- Inspection



Thank you

Quick Response System

For more information

Visit: <https://www.qrsystem.co.kr>