

ROBOTAI

www.robotai.info



RobotAI

ABOUT ROBOTAI

- Established in 2018
- Funded and supported by Israeli Innovation Authority, Hamlet, Haifa and Private investors
- Develops 3D Vision for robotics and automation

THE MANUFACTURING IS STILL LABOR INTENSIVE. WHY?

- Complicated actions
- Dynamic environment
- Human “eye” understanding
- Coordination
- High cost

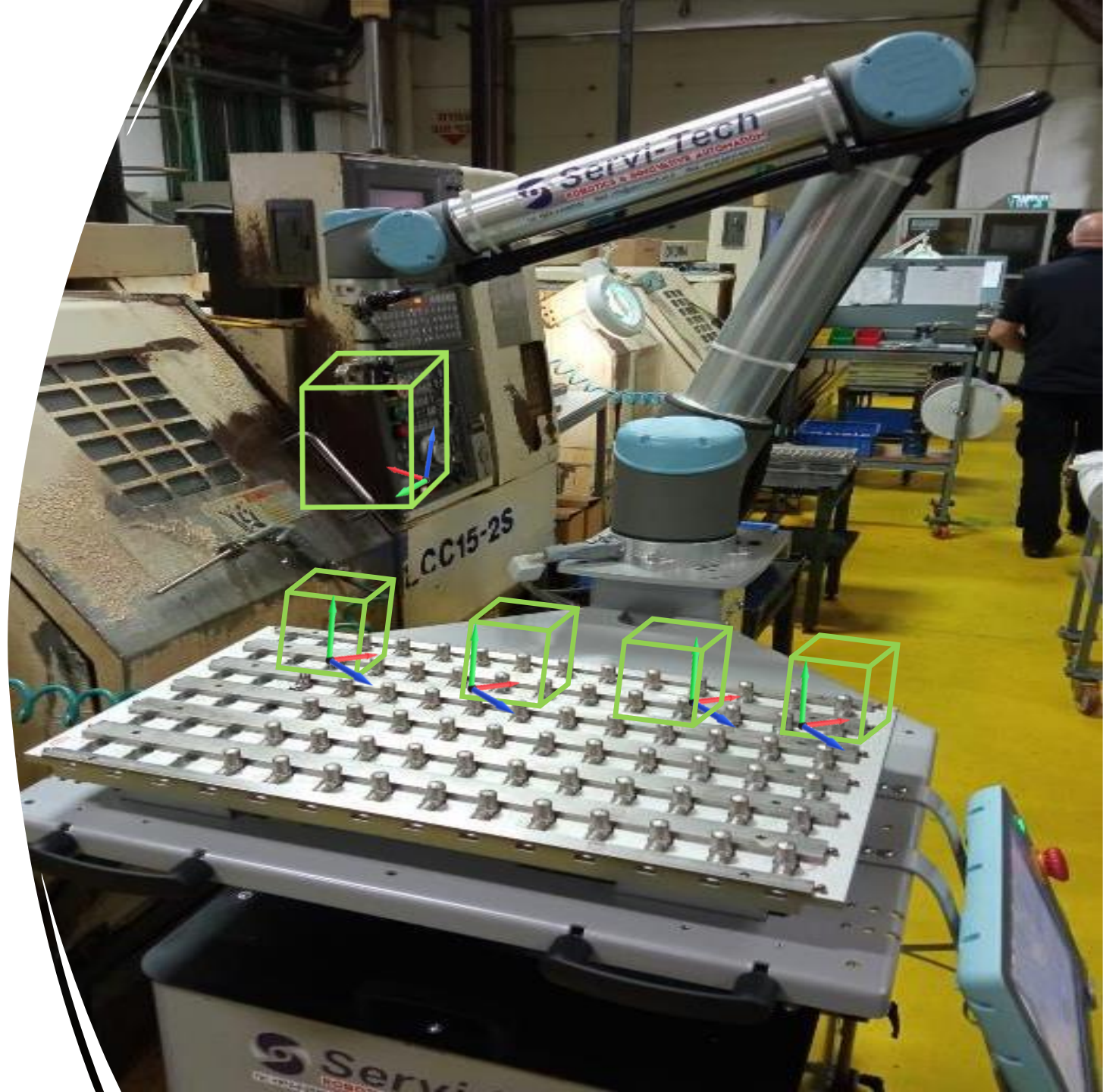
SITUATION AWARENESS ENABLES ROBOTICS APPLICATIONS

- How to deal with dynamic and changing environments?



COGNITIVE ROBOTS?

- Robots should see objects like humans
- Robots should understand object positions



SOFTWARE ONLY, BASED ON AI

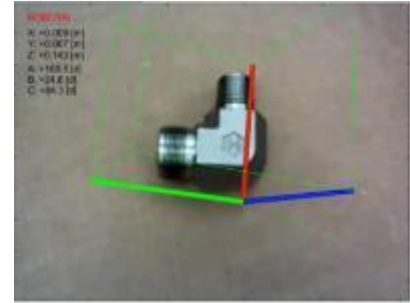
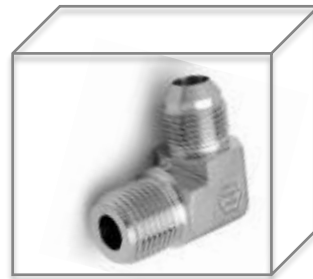
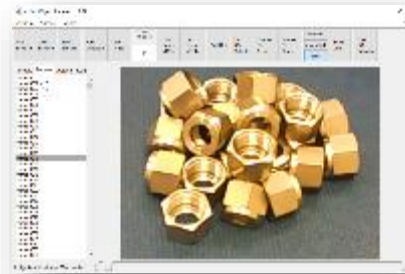
OBJECT IMAGE
DATA

TRAINING
SOFTWARE

OBJECT
MODELS

EDGE
SOFTWARE

OBJECT
POSE



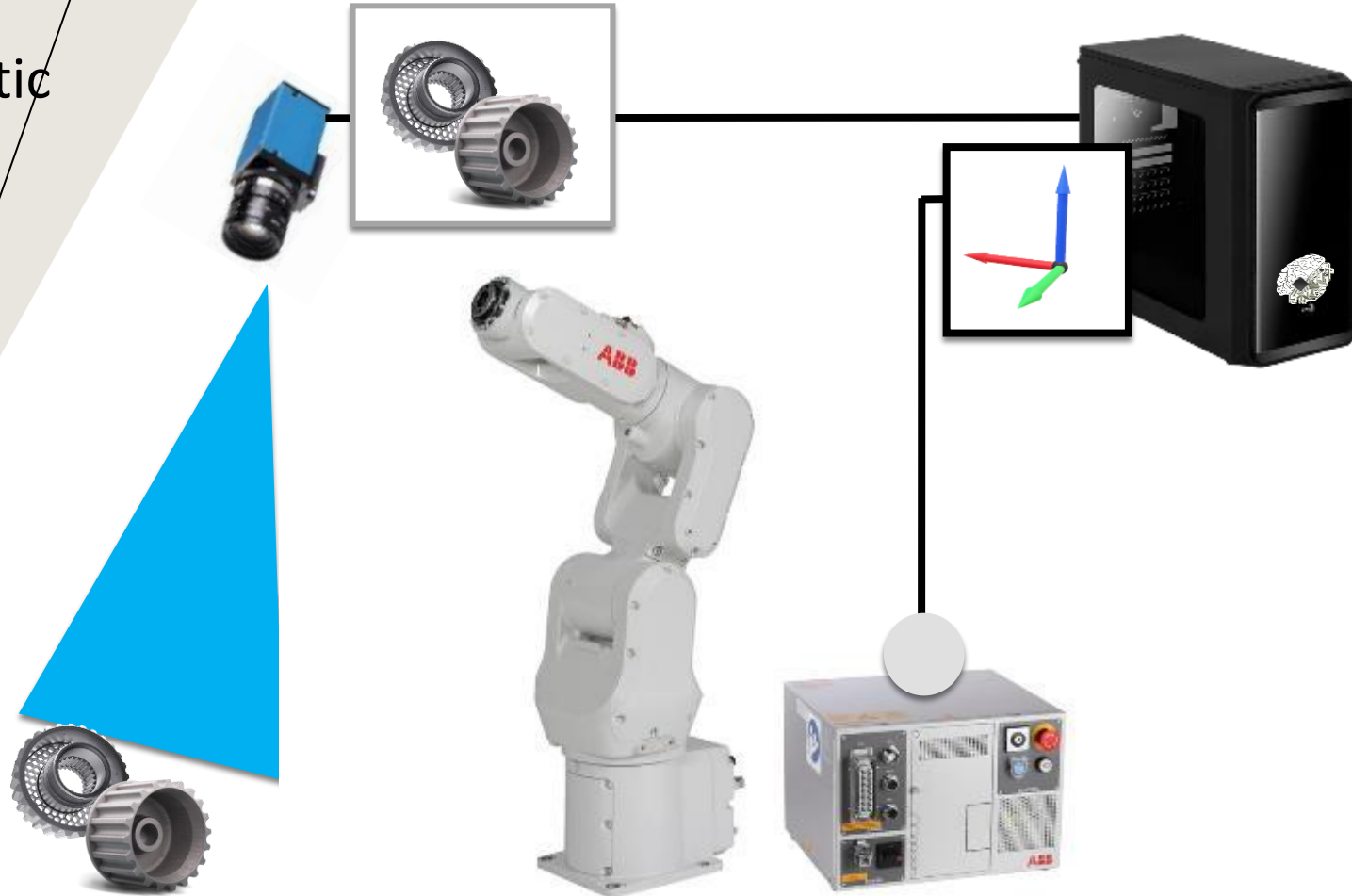
LABEL6D
SOFTWARE

POSE6D
SOFTWARE

Advantages:

- Camera and Robot Agnostic
- Software Only Solution
- Defines Objects
- Fast – 30 frame/sec
- Precise – 0.5 mm
- Flexible

EASY INTEGRATION



ROBOTAI COMPARISON

	RobotAI	Competitor A	Competitor B	Competitor C	Competitor D
Sensor Type					
Precision [mm]	±0.3	±2.0	±5.0	±1.5	±1.0
Scan Time [sec]	0.05	1.8	0.5	0.3-0.9	0.5
Object Types	All	Specific	Some	Specific	Some
System Setup	Fast	Fast	Slow	Slow	Fast

OUR CUSTOMERS

- Remote Support
- Easy Deployments
- Different Countries



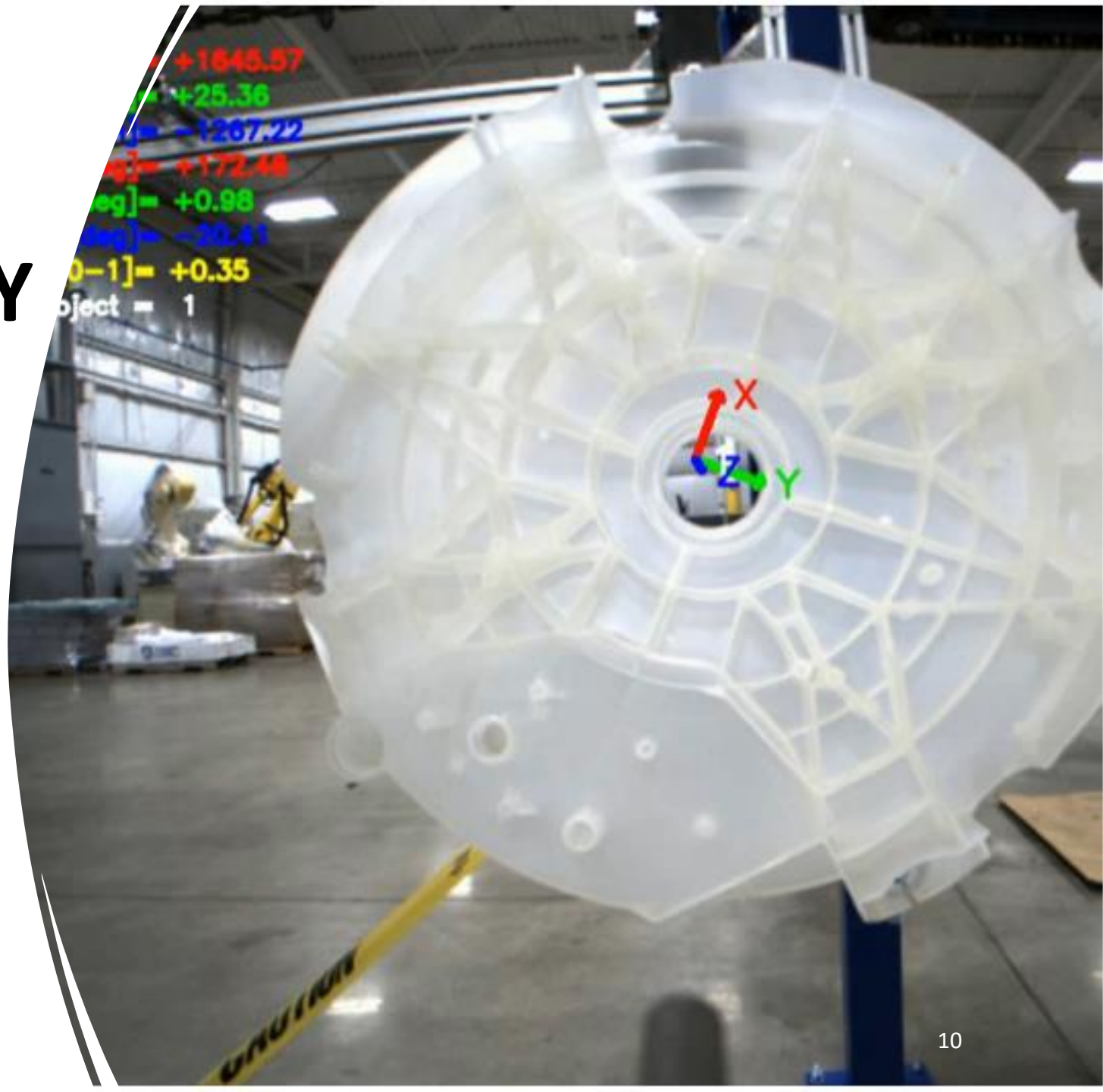
USE CASE : PROCESS ASSEMBLY

Challenges:

- Dynamic 3D position
- Fast movement

Main benefits:

- Conveyor assembly
- Higher capacity
- On-process controlling



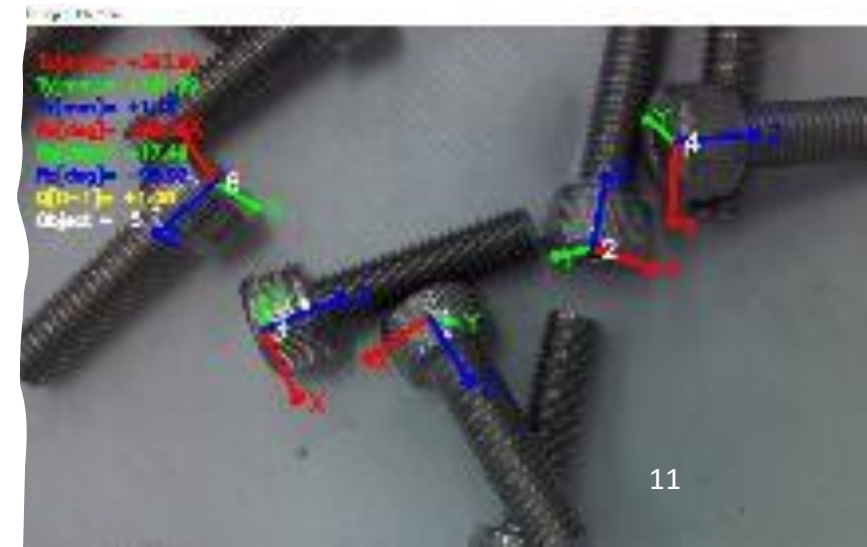
USE CASE : BIN PICKING

Challenges:

- Reflective parts
- Small size

Main benefits:

- High resolution
- Fast detection



USE CASE : MONITORING

Challenges:

- Tool tracking
- Mission completed

Main benefits:

- 100% control
- Less resources



USE CASE : PICK & PLACE

Challenges:

- Reflective – hard to use laser
- lot of sizes

Main benefits:

- Replacing feeders
- Safety environment
- Less space
- One solution



USE CASE : LIVE POSITIONING

Challenges:

- High precision
- Adapting to actual position

Main benefits:

- Flexibility
- Simple solution (standard camera)
- Easy setup & Calibration



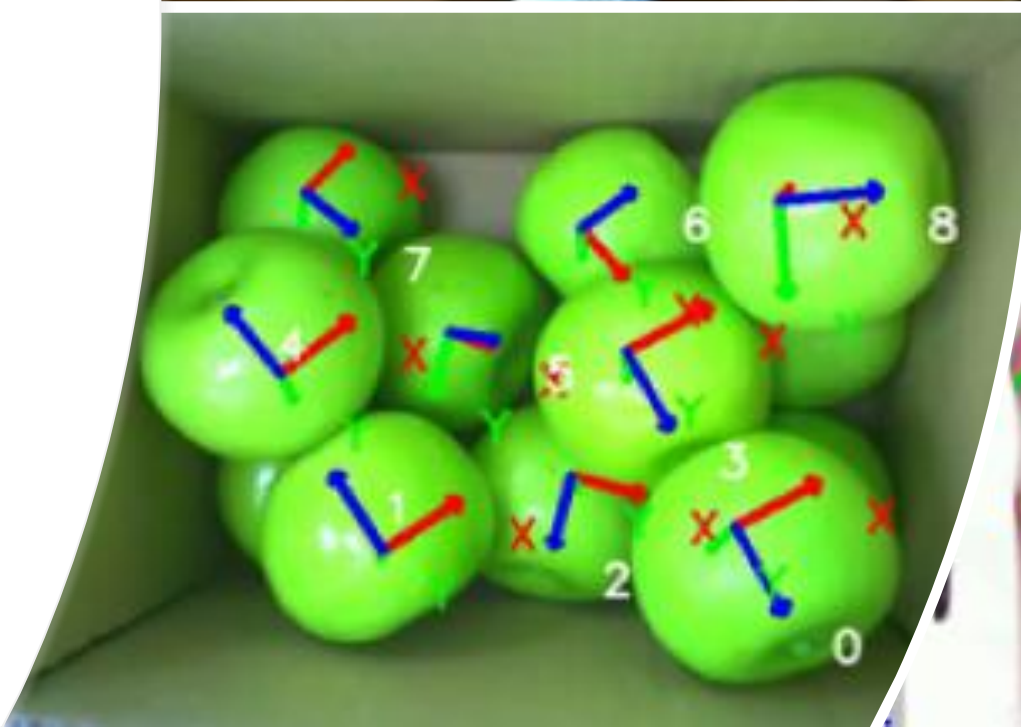
USE CASE : LOGISTICS & STORAGE

Challenges:

- Various products
- Texture sensitive

Main benefits:

- One solution
- Live detection



USE CASE : PCB INTEGRATION

Challenges:

- Rotation angles detection

Main benefits:

- Precise pick up
- High repeatability
- Simple integration

