RZ Ecosystem Partner Solution

NEXT-SYSTEM VisionPose®
Solo Working Detection System

Solution Summary

A detection system for solo (one-person) working with alert-notification, based on "VisionPose" which is an original AI-Engine of Pose Estimation by NEXT-SYSTEM. This system can take measures against unexpected accidents and crime prevention, especially in situations where multiple people are working together. Deliver unique Pose Estimation technology with low power efficiency by DRP-AI of RZ/V series.

Features/Benefits

- Easy to handle by 'Markerless-type'
    - Able to detect solo working by video signal from camera without any wearable device
- Anomaly detection in a specific area recognizing each part of a human body
    - Judgement by skeletal frame information, able to recognize each parts individually
- Real-time detection
    - Support real-time AI inference to get skeletal frame information
- Implementable to Edge-device
    - Embed this AI-Engine to AI camera and other edge-device for rapid operation
- Support Network camera (IP-camera)
    - Compatible with network (IP) cameras and able to monitor the congestion status in stores and monitor security.

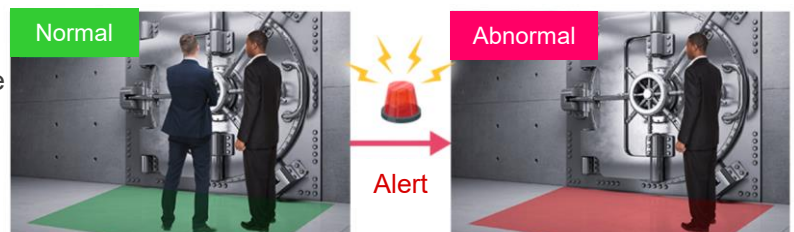## Diagrams/Graphics

- **Use-case of Drug Company**
  Based on the rule, Medicines have to be dispensed with more than one person.
  It can detect solo working as abnormal, and raises alert.

- **Use-case of Banking Facility**
  Based on the rule, bigger safe box has to be opened/closed with more than one person.
  It can detect solo working as abnormal, and raises alert.

Target Markets and Applications

- Medicine Manufactory
- Server Room
- Production Floor
- Bank, Finance Organization
- Warehouse

https://www.next-system.com/en/visionpose

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Corporate profile

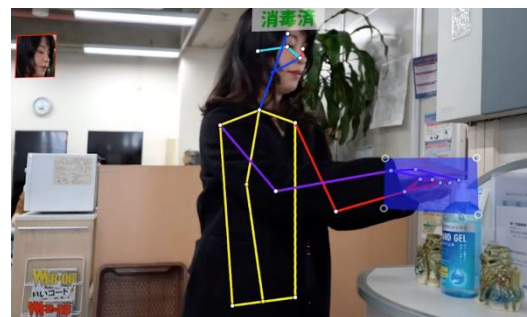|	
Company name	NEXT-SYSTEM Co.,Ltd.
HQ location	Fukuoka Head Office 2F, 3-12-33 Ijiri, Minami-ku, Fukuoka City, Fukuoka, 811-1302, Japan
Established	August 28, 2002
President & CEO	Yoshio Fujita
Business Activities	Develop and sales of 'VisionPose' as AI Engine of Pose estimation Behavior analysis by using AI, R&D of Ergonomics system R&D of leading edge technology (AR/VR/XR)
Common stock	80,750,000 Yen (including 28,125,000 Yen as capital reserve)
Sales amount	420,856,506 Yen (FY2020)
Number of Employees	50

Key products to utilize AI-camera (IP-camera)

Dangerous behavior detection system in a specific area

DANGER!

When someone penetrates into a specific area, this system can raise an alert to prevent accident.
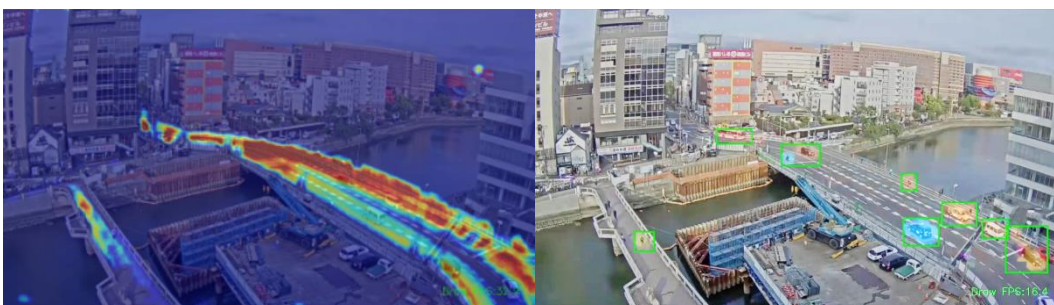
Behavior detection system in a specific area

When the particular action is detected in a specific area, this system can raise an alert. In the case of above photo, it detects presence or absence of antisepsis and indicates the status.

Optical flow
(The spectrum map of moving speed for target objects)

Measuring the moving speed and distribution of target objects (e.g. speed, traffic condition, flow line), visualizes them, and displays alerts.