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
Corporate profile

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

**Dangerous behavior detection system in a specific area**

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.