

**TECH OFFER**

## Visual Inventory Management System



### KEY INFORMATION

TECHNOLOGY CATEGORY:  
**Logistics - Inventory Management**

TECHNOLOGY READINESS LEVEL (TRL): **TRL7**  
COUNTRY: **SINGAPORE**  
ID NUMBER: **TO174242**

### OVERVIEW

This Technology Offer allows automation of the process of monitoring stock levels in the warehouse, and when they drop below a certain threshold, trigger a certain event. This technology can be used to address the following challenges:

- What items are on the shelf?
- What is the current inventory level?
- What items need to be restocked?
- How many items need to be restocked?

### TECHNOLOGY FEATURES & SPECIFICATIONS

This technology can automatically trigger material top-up quantity from a cloud platform to suppliers, based on visual signals using webcams. Two types of technology concepts are used:

- 1) Webcam scans AR code to detect stock to be replenished or
- 2) Webcam compares area occupied vs empty (ROI image area mapping), and calculates stock to be replenished

Thus, stock management can be optimized and no longer require storage in warehouse; they can be directly sent to Centralized

Packaging, hence saving staging space & inventory.

## POTENTIAL APPLICATIONS

This technology would be useful for companies that are interested in automating the warehouse processes. This in turn could reduce the time and manpower required to do inventory checks. The technology can also be applied in places with high turnover stock rates or unpredictable selling rates, e.g., pharmacy or supermarket.

## UNIQUE VALUE PROPOSITION

This technology allows for automatic monitoring and top up triggering of inventory levels, thus reducing time and manpower required to do inventory checks.