



AGILEHAND

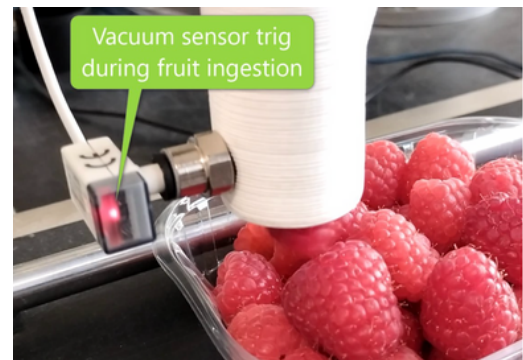
SELF-ADAPTIVE HANDLING, SORTING AND PACKAGING PACKAGE

SORTING SEMI-AUTOMATED MECHANISIMS FOR THE FOOD INDUSTRY

SOLUTION DESCRIPTION

Transform your operations with our self-adaptive handling, sorting, and packaging suite for soft products

The AgileHand Self-Adaptive Handling, Sorting, and Packaging Suite is specifically designed for manufacturing industries dealing with soft products. This advanced suite leverages intelligent robotics and handling systems to improve product quality, boost productivity, and streamline system integration, while significantly reducing the risks associated with human intervention.



The Self-Adaptive Suite improves on the handling, sorting, and packaging process by incorporating state-of-the-art robotics, ensuring delicate products are managed with the utmost care. Unlike traditional methods that rely heavily on human workers, the suite improves operational efficiency and consistency, making your production line more reliable and scalable.

EXPECTED IMPROVEMENTS

-40%

Reduce the product grading cost by automating human operations

+30%

Increase product variety that can be manipulated with cobot and robot-robot

+20%

Decrease in the number of operator injuries by reducing their involvement in unsafe and unhealthy tasks

-35%

Reduce the number of delicate products damaged with cobot and robot-robot



MAIN BENEFITS

With the Self-Adaptive Handling, Sorting and Packaging Suite, it's now possible to:

- **Improve product quality:** Intelligent systems handle soft products delicately, reducing damage and ensuring high quality.
- **Reduce human risk:** minimizes the risks and inconsistencies associated with manual handling.
- **Enhanced productivity:** automation increases the speed and efficiency of handling, sorting, and packaging.
- **Better System Integration:** Seamlessly integrates with existing production lines for a more cohesive operation.
- **Operational efficiency:** Optimizes workflow, reducing downtime and increasing overall efficiency.

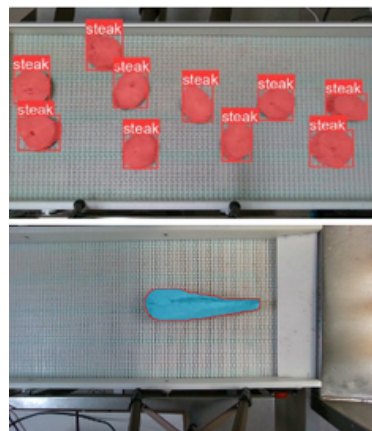
SOLUTIONS INCLUDED

- **AgileHand Self-Adaptable Transportation Systems:** An intelligent platform capable of performing transportation, inspection, sorting, and value addition processes to delicate products, and capable of being cross-functional to handle a variety of product types.
- **AgileHand Collaborative Robot:** A safe collaborative environment where man and machine can work together and perform product handling tasks along various stages of production.
- **AgileHand Robot-Robot:** Synergistic cooperation between the various robots and intelligent machinery across the line to exchange product-relevant information amongst themselves and a Production Execution Optimization Toolkit to create ever-evolving production models.

USE CASES

FROZEN FISH

The Self-Adaptive Smart Sensing Suite is being tested on the PRODUMAR production line, focusing on **the use of robotic end effectors to handle frozen fish fillets and slices**. This system will be integrated into a robotic cell equipped with a collaborative robot (cobot) to perform packaging tasks, such as feeding flow-pack machines.



PRODUMAR
specialises in trading and processing of frozen and deep-frozen fish.



CHICKEN FILLETS

MARELEC will use this solution suite to streamline the packaging of chicken breasts, ensuring the **required quantity meets specific weight requirements**. A delta robot will handle the initial pick-and-place process, moving the chicken breasts into the final boxes.

Following this, a collaborative robot (cobot) will refine the top layer's arrangement to enhance its visual **appeal for consumers in stores and supermarkets**.



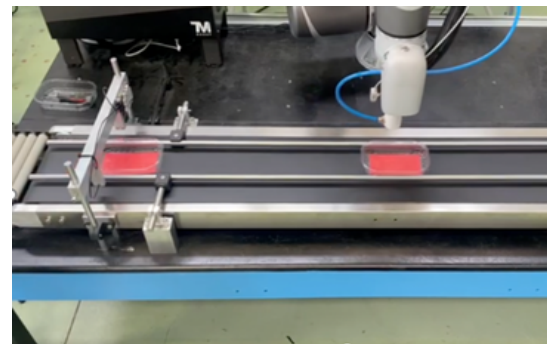
MARELEC designs high-tech portioning, weighing, grading and control systems for the fishing and food industry.



FRUIT

Sant'Orsola company uses this solution to **optimise the quality control process on raspberries**, ensuring that discarded fruit is removed from the raspberry baskets and the raspberries are added to the baskets under weight.

A manipulator Cobot tracks the punnett moving on the conveyor belt and extracts the target fruit through its suction in order to **avoid damaging the surrounding fruit**.



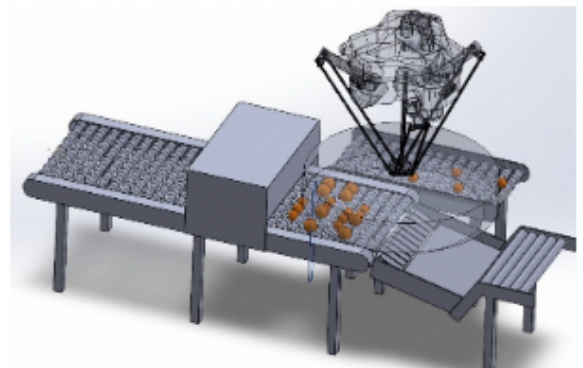
SANT'ORSOLA is a producer of small fruits, strawberries and cherries.



VEGETABLES

The goal of testing this suite at the Multiscan facilities is to **develop a system that classifies products into three categories, with a high-speed delta robot** handling the newly defined category. The products to be sorted include tomatoes and oranges, with the category dynamically determined based on the initial inspection of each batch.

The equipment includes pick points, multi-position rollers, and a conveyor belt in the placement area, along with the delta robot. The **new grippers are designed to adapt to various fruit types without causing damage**.



MULTISCAN specializes in machine vision and inspection solutions for the product inspection of agri-food products.



TECHNOLOGY DEVELOPERS



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