Empowering a Leading Multinational Food and Beverage Organization in Automating Tertiary Packaging Process with Fast-Moving SKU Lines

Overview

The customer, a leading food and beverage manufacturing company has been manufacturing over 35 flavors (SKUs) of products for Indian market through 7 different lines. The upstream processes were fully automated, but the packaging process was manual, and this created a bottle neck.

Key Challenges

- High dependency on manual process
- Existing legacy system integration issues
- High level automation was not feasible due to space constraint
- Low-Cost Solution target
Our Approach and Solution

- Conducted due diligence to develop user requirement specifications (URS) in compliance with machine equipment and Safety Standards
- Developed 2D layout, mathematical models and simulation Analysis
- Conducted feasibility study for robotics, gantry, co-bots and palletizers
- Identified 5 potential partners from over 80 system integrators across globe
- Validated over 34 layouts against varying scenarios like - SKU per line, conveyor speed, infeed rate, MTTR and case overflow
- Final implementation with finalized partner - factory acceptance test / site acceptance

Business Impact

- Low-Cost solution from barcoding, robotics, conveyors and palletization
- 26% improvement in carton packaging rate
- Modular Design for scalability
- 70% reduction in operators

About Tech Mahindra Engineering

Tech Mahindra’s integrated engineering solutions (IES) delivers solutions enabling "digital engineering enterprise" across aerospace and defense, automotive, industrial, telecom, healthcare, energy & utilities and ISVs. With over 50 exclusive global engineering centers supporting new program launches and over 350 active global customers, Tech Mahindra IES is an established leader for engineering services in the industry.

Tech Mahindra delivers exponential value to engineering enterprises by collaborating with them across three key tenets: robust products, ubiquitous platforms and cyber factories. The vision for Tech Mahindra engineering is founded on the new digital economy considering emerging market trends like digital engineering, intelligent workplaces, adoption of tele-everything, end-to-end connected and immersive approach covering smart manufacturing and the need for an overall resilient business framework.

We call this approach of accelerating outcomes, inventing better products and transforming businesses into digital as – Engineer your NXT.NOW™!