Solutions

Issue 28

EMP TECHNICAL GROUP

High Speed Barcode Reading

Challenge: Improve barcode reading system for scanning canned products rolling at a rate of five cans per second.

Solution: Implement a single hand scanner, two Dataman 360 fixed-mount barcode readers, and a control box with PLC.

Story: Quality inspection in the food and beverage industry can often be challenging due to extremely fast line speeds, and this was the case for an Illinois based canned food company. They were using a fixed-mount scanner to scan barcodes on cans of food as they rolled by at five cans per second. Because they were running into a significant number of no reads or misreads, they decided it was time to contact industry experts to tackle the problem.

The team of engineers at EMP Technical Group evaluated the application and set up a trial run back at their office. The results from the test run determined that the barcode readers needed to be upgraded to two Dataman 360's mounted inches away from each other. Once the application was solved back at the EMP office, it was then deployed at the customer's facility.

At the customer's facility, an employee uses a handheld barcode scanner to scan the initial can that is being run on the line. This data is then fed into a custom program that tells the Dataman 360's which barcode to look for. As the cans roll past the scanners, one of the two (master/slaved) decodes the UPC barcode on the can. If there are three consecutive no reads, the PLC will send a signal to divert those cans and stop the labeler. If there is a mismatched barcode to the trained one, the PLC will divert the can and stop the labeler. The customer has been running full speed for weeks and is very happy with the solution! No reads or misreads no longer slow down their production.

Do you have an application with an outdated solution or a system that isn't meeting your demands? Contact the team at EMP to come evaluate your application!