## Solutions

Issue 42

## EMP TECHNICAL

## **RFID Printer with Robotics**

**Challenge:** Provide and integrate an RFID label printer into custom robotic machinery.

**Solution:** Zebra ZT411 RFID label printer with Ethernet IP and Zebra Network Connect.

**Story:** A machine builder was in the process of constructing a bagging machine for various truck components. Each bag requires a label with an RFID tag for tracking purposes. The machine builder was on the hunt for an RFID printer that could easily integrate with the PLC and robot that were controlling the machine. They knew just who to call and reached out to the team at EMP Technical Group.

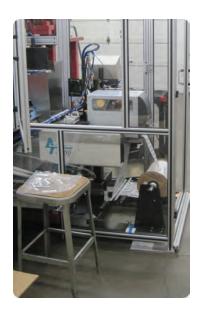




The engineers at EMP recognized that the Zebra ZT411 RFID printer would be the perfect product for this application. The Zebra ZT411 has the ability to print and encode the RFID label and the Ethernet IP

connection needed to talk to the PLC on their machine. The engineers at EMP loaded the Zebra Network Connect software allowing communication between the printer and the PLC.

The Zebra ZT411 was easily integrated into the bagging system. The PLC sends a signal to the printer telling it what to print and encode for the RFID label. The printer produces the label and reads the tag to ensure it was encoded correctly. If it is printed correctly, it is then presented to a robot that removes the label and places it on the product bag. If the tag was encoded incorrectly, the robot then removes the label to be discarded.



This application is an excellent example of how printers can be used in an automated setting with both a robot and PLC. Are you looking to integrate a printer into your custom machinery? Contact EMP today!