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## **A Case Study Featuring Redeployable Robots**

**Client:** Die Casting Company located in Minnesota

### **Problem:**

A Minnesota die casting company utilized a robotic automation system that tended to a series of horizontal machining centers. After a few years of operation, the production requirements changed significantly. The die casting company desired to move the automation away from the horizontal machining centers completely, and instead integrate the automation into to a vertical machining center and lathe. Rather than undergo the costly expense of replacing their existing robotic automation system, they were looking for a way to alter and adjust it to meet the new application requirements they had set.

### **Solution:**

PRI Robotics worked cooperatively with the customer to analyze their existing application needs and help create a redeployment plan so that their existing robotic automation equipment would meet the new requirements.

The reassigned application required several new features including a different end-of-arm tooling (EOAT) that boasted quick-change capabilities, allowing the die casting company to quickly and efficiently change EOAT's based on their application needs. The redeployed application also featured a new EOAT staging rack, fencing modifications, and a turn-over/regrip station. With some custom programming, and new features previously listed, the robot was finally able to integrate the vertical machining center and the lathe into one solution.

During the initial evaluation it was clear that cycle times were an important necessity to the die casting company. PRI worked with the customer to find the best process methodology, and as a result, the customer's cycle time requirements were surpassed, and are now in full production.

### **Outcome:**

PRI worked closely with the customer in order to minimize production downtime and the redeployment of the die casting company's robot cost less than \$25,000 to accomplish, saving them valuable dollars in today's tightening economy. The ending result is clear - hard automation could not have been reused economically in this situation.

Check out the Redeployable Robot Video to see the application in action.