

Delivering Plastic Bags in Only Four Seconds

The Client

Paper and Plastic Bag
Manufacturer

The Project

Robotic Material Handling
Solution



The Challenge

Struggling to meet the demand for their product, our client, a paper and plastic bag fabricator, turned to JMP for help. The manual system they had in place was labour intensive, ergonomically challenging for the workers and cost too much.

Our Approach

JMP created a material handling system that welded plastic handles onto plastic bags, eliminating the need for manual labourers to complete this process. The system sends bags down a conveyer to a cell where an overhead Cognex camera locates and identifies the bag for robot pickup. The robot picks up the bag and a second camera locates the exact corner of the bag. The robot then positions the bag for the welder, while a second robot picks a handle from a feeder system and inserts the handle into the welder. The handle is welded to the bag. The robot grabs the finished bag and loads it on a rack, where other bags are also loaded and then are subsequently taken to the strapper. Twelve cells operating at four seconds per bag produce 180 bags per minute, much faster than the previous manual operation.



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Our Unique Value

Working along with the client, we devised a completely new approach to solving this challenge that is unique to the industry. The flexible, scalable design allows the cell to handle variable product sizes with a quick changeover, and additional cells are easily added if production requirements are increased. And JMP executed this creative solution well ahead of the client's timeline.

The Client's Success

With a greatly increased throughput, the client was able to meet the current demand, plus accept larger orders than they were able to before the automated system was in place. The new automated system also improved employee safety and increased the quality of the client's products.

