

# Applications Note #1

Industry: Automotive

Application: Dispensing

Product: F3 Robot & C500C Controller



## THE PROBLEM

In late 1998, Hamsar Diversco Inc. (Burlington, Ontario) found itself struggling to keep up with the production demand of Truck Auxiliary Headlamps. Production was carried out manually by a team of workers that assembled the components of the headlamp and dispensed a silicon adhesive to seal and bind the components together. The main problem lay in the poor quality of the dispense bead, and consequently, many parts required re-work and touchup. This led to reduced productivity and cost overruns. In addition, the operators were plagued by repetitive strain injuries resulting from handling the awkward, hand-held caulking guns.



## THE SOLUTION

Hamsar looked to CRS Robotics ([www.crsrobotics.com](http://www.crsrobotics.com)) and to Opus Automation ([www.opusautomation.com](http://www.opusautomation.com)), a local systems integrator, to solve their quality control problems and ergonomic issues. Opus Automation designed a flexible, semi-automated robotic dispensing cell that dramatically increased quality and productivity while reducing material costs and repetitive motion injuries. At the heart of the work cell is a **CRS Robotics F3 6 axis industrial robot**, which features safe and efficient bead or spot placement of a variety of adhesives on complex or contoured surfaces. Product or style changes are implemented with a touch of a button or with a quick tooling change. High throughput and safety are achieved with a rotary part indexer and a safety light curtain timed to the robot movements. Extensive HMI menus are designed to quickly step operators through setup, production and maintenance procedures.

The cell, now offered as a standard product by Opus Automation, is able to dispense hot-melt, RTV, two part adhesives or formed-in-place gasketing material. In addition, because of its modular design; the work cell is easily re-deployed for a variety of other human-scale applications.

- Lab Automation • Education • Dispensing
- Material Handling • Assembly • Machine Tending

