

**IVC APPLICATION NOTE:**

# Manufacturing Process Monitoring

IVC's software and cameras are helping a major Nissan Motors monitor and troubleshoot problems that develop in the assembly of their cars.

In their North American assembly plant, car bodies are carried on overhead conveyors through the facility. Each car body has an RF tag that transmits its ID number. As the body reaches various locations in the assembly process or storage areas, the ID is received. If there is a missed read, an alarm is triggered in the central control center and the IVC zoom video camera presents a snapshot of the missed read operator's screen whereupon he can make a visual read and enter the tag manually.

The difficult lighting conditions and constantly varying positions of the tag required the high quality optics and automatic, rapid exposure and focus control that are standard in IVC cameras. The high zoom in the camera can move rapidly from a broad view to an extreme close-up view. Providing a steady close-up view in a factory environment can be difficult because small vibrations in the plant are amplified when the lens is zoomed in. The images can become jumpy and of no value. This part of the plant had significant vibration due to the steady grinding of the overhead conveyers, and cameras that had previously been installed provided unreadable images and had to be removed.



IVC supplied "image stabilized" cameras for this application that electronically remove the jitter and jumpiness. They provide a steady image even when vibrations become quite large. Having seen the resulting payback, the company is now adding additional IVC cameras to various other RF receiver points on their production line.



The success in this application resulted from IVC's efforts to thoroughly understand of the requirements of the application and its willingness to provide post sales support until the application met the customer's needs.

