

## Application AP1. Metal Stamping Gauging.

**Problem:** A manufacturer of over molded plastic parts needed a method of verifying that parts he was getting from his supplier were not becoming deformed in the over mold process. In addition to the part inspection, the customer also required that the data be passed into an SPC package for further analysis.

**Solution:** Stand-alone inspection station with integrated motion, Near-Infrared machine vision and data acquisition. There are two cameras, each of which takes four picture of two parts.

Parts are placed flat onto a glass plate by the over



Figure 1: Automated Inspection Machine

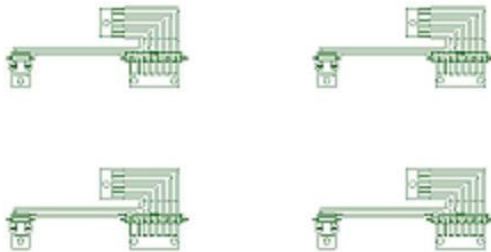


Figure 2: Part Placement

mold unload robot. Part position is repeatable within  $\pm 0.002$ ". Once the parts have been placed onto the platform, it is indexed to the first position where measurements are taken and recorded for the SPC package. This process is repeated three additional times ( for a total of four parts ).

When the cycle is complete a visible indicator informs the operator as to which, if any of the four parts are non-conforming.

Data is stored in a text file for opening at the operator' s convenience from the SPC package.

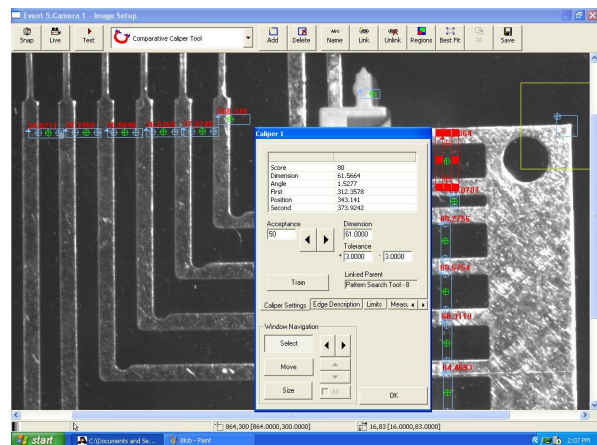


Figure 3: Machine Vision Image