

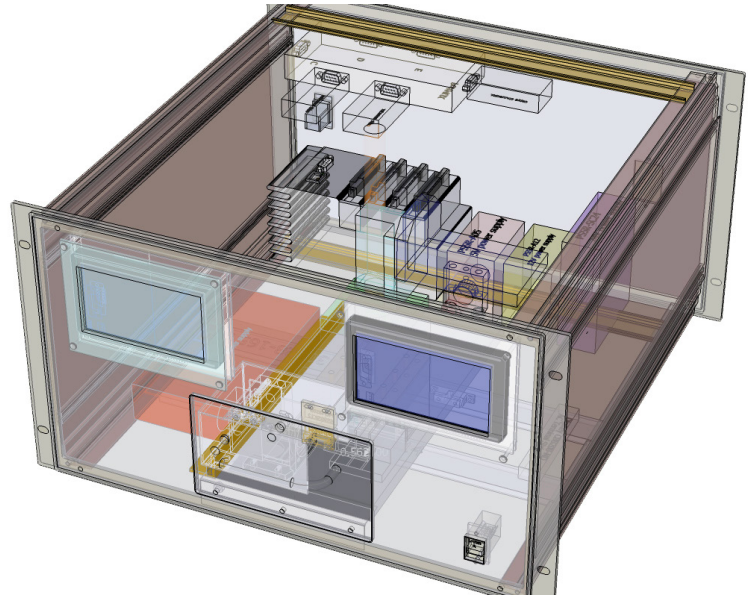
The Challenge

To automate the process of measuring the angles of a complex machined part, with the ability to measure and reproduce results across multiple units.

The Solution

PVI Systems used a laser light source and motion control technology to create a stand alone part inspection system to scan machined parts.

To simplify the use of the system while maintaining robust quality, the processing and control engine used was a NI (National Instruments) cRIO chassis with appropriate IO modules. The operator opens a sliding door and inserts the part. The system then automatically inspects the part and displays the measurement and the pass/fail status of the part to the user. The final system was a self-contained 8U rack mount chassis with no external monitor or computer.



System Features

- Measures precision angles of machined parts
- Robust production part inspection
- Embedded National Instruments cRIO controller
- Passed rigorous Gauge Reproducibility & Repeatability study
- cRIO-9101 4-slot, 1 M Gate Reconfigurable Chassis for CompactRIO
- cRIO-9012 Real-Time PowerPC Controller for cRIO, 128 MB Storage



Multiple units have been deployed to the manufacturer's production facilities across the US. The system was successfully run through a Gauge Reproducibility and Repeatability study by the customer and met their requirements for consistency across various units.

Contact us for more information about *Data Acquisition, Machine Vision, Process & Motion Control, or Automated Test & Measurement systems.*

