



## In-line Piston Pin Circlip (PPC) Assembly Verification Solution Delivers 100% Reliable Error Proofing

### Problem Statement

An automotive manufacturer used a 2D vision camera to inspect their piston pin circlip assembly, which failed when there were changes in ambient lighting or color changes between circlip and piston. They were looking for a solution that could provide 100% reliable error proofing and would not be affected by changes in lighting or part color.



### Solution

To solve the auto customer's particular needs, Coherix developed a Robust3D PPC assembly error proofing solution based on its Tru3D sensor. Different from a temperamental 2D vision camera or a mechanical probe approach, the Coherix Robust3D PPC captures 3D data to create a 3D math model of the piston and circlip on each side of the piston. The Robust3D PPC delivered a 100% reliable error proofing solution.

2D Image	Robust3D Image	Conclusion
		<b>Circlip in Place</b> 
		<b>Circlip Missing</b> 

### Result

The auto manufacturer adopted Coherix Robust3D PPC in its manufacturing bill of process, and according to their manufacturing engineer, Coherix' Robust3D PPC "eliminated all piston pin circlip defects."

If you would like more details about the case study, please contact Coherix at [coherixinfo@coherix.com](mailto:coherixinfo@coherix.com) or (734) 922-4073.