Lack of error-proofing of products and processes today results in poor quality, loss of revenue due to repeat issues, campaigns, and loss of customers. It also causes additional non-value added activities, expenses, and people costs.

The good news is that there is an opportunity to reduce warranty claims and field problems, reduce the number of recurrences to eliminate negative trends, reduce the number of problems at customer, reduce the cost of poor quality, and reduce the time for execution of each step.

There is a significant opportunity to improve delivered product quality, reduce waste, and improve efficiency by eliminating the potential for errors through effective error-proofing.

AIAG has a “Guideline to Effective Error-Proofing” (CQI-18) with a goal of providing a comprehensive manual focused on manufacturing-based industries to achieve a “zero error” culture via the following:

• Focus on proactive error-proofing through both product and process design, and continual improvement activities.
• Elimination or significant reduction of process sensitivity due to variation (e.g., operator performance, tool wear, multiple machines, etc.).
• Effective detection for errors that cannot be prevented.
• Subsequent error-proofing for problem elimination.
• Control of detected errors/non-conforming product.
• Deployment of error-proofing on similar operations (read across).
• Communication of best practices and prior experience to eliminate repeat issues.
• Fully integrating error-proofing approaches with existing quality tools and procedures (APQP, FMEAs, Control Plans, etc.).
• An assessment system for error-proofing.
• Appropriate monitoring and controls for installed error-proofing.
• Guidance for layered process audits of error-proofing.