# Optimizing Machine Vision System Setup Accuracy by Six-Sigma DMAIC Approach

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**Abstract :** Machine vision system provides automatic inspection to reduce manufacturing costs considerably. However, only a few principles have been found to optimize machine vision system and help it function more accurately in industrial practice. Mostly, there were complicated and impractical design techniques to improve the accuracy of machine vision system. This paper discusses implementing the Six Sigma Define, Measure, Analyze, Improve, and Control (DMAIC) approach to optimize the setup parameters of machine vision system when it is used as a direct measurement technique. This research follows a case study showing how Six Sigma DMAIC methodology has been put into use.