

## Project Bi- Weekly Progress

**Date: 10/31/2013**

**Project Title:** Automated High Volume Bearing Bore Gage

**Students Names:** Eric Allgeier, Matthew Boler, Kevin Flemming, Seth Norman, Christopher Proffett

**Mentors/ Coordinator/ Sponsor:** Dr. Cartes, Dr. Frank / Joseph Potts / Koyo Bearings

**1. Project Title:** Automated High Volume Bearing Bore Gage

**2. Project Objectives/tasks Breakdown:**

The objective of this project is to update the software and interface on a bearing bore gage. This device must be user friendly and integrated into a system that monitors multiple gages at once.

**3. What was accomplished the last two weeks on individual tasks- representative supporting data/ documents**

We created four electrical configurations and made a decision on which to use. Research has been conducted on various components (Power Supplies, Signal Conditioners, PC-104s, PLCs, Ethernet Switches, CPUs, and Touch Displays). We have also made a decision on some of the components, including the Signal Conditioner, CPU, and PLC.

**4. Summary of problems encountered and actions taken (and by whom)**

The current PLC does not have the capabilities required by our design; it does not have an Ethernet module and the software would cost \$2500. We have conducted research on several PLC and have contacted the manufacturer directly. They have advised us on the capabilities of each; we have found a PLC that will work for \$688 (software is free). Because of IP address issues, the Ethernet switch will be replaced by a router.

**5. Attached Gantt chart modifications and analysis if project is behind schedule and summarize actions planned to overcome the problems)**

**6. Work planned for the next period and the person(s) responsible:**

Decisions on which Power Supply, Monitor, and Router must be made. Eric has been selected to lead the creation of a testing platform; this is to be ready for when we begin assembling the bearing bore gage. Schematics of the bore gage will be created along with a detailed write up of why we chose this design. A bill of materials will have to be created.

**7. Open comments/suggestions (Please feel free to include your private comments):**

**Coordinator/ Instructor assessment report and corrective action**

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