

Senior Design Project Data Sheet

Project #	Project Name	Project Track	Project Family
P16701	MSD Total Supplier Performance and Inventory Control	Process Improvement & System's Redesign	Inventory Management
Start Term	Team Guide	Project Sponsor	Doc. Revision
Fall 2015	John Kaemmerlen	Christine Fisher	1

Project Description

Project Background:

Each year, more than 300 engineering students participate in the Multidisciplinary Senior Design (MSD) course at RIT as their capstone design experience. The course allows students to use the skills they have learned in their classes to design, build and test their solutions to design problems. Each team has a budget and is responsible for purchasing the parts, and sometimes, the tools needed to realize their design. The MSD office manages purchasing and an inventory of hand tools that students can sign out to use on the 4th floor of the engineering building. Other resources are available around campus, however there is minimal visibility and no organized system for keeping track of these additional resources.

Problem Statement:

The primary objective of this project is to redesign the inventory management system and purchasing system for the MSD office. The new system will operate electronically and should provide an easy system for tool loan out to various MSD teams. In addition, a new, electronic, purchasing procedure will be implemented to address cost and time constraints.

Objectives/Scope:

1. Standardize tool loan out procedure
2. Create electronic purchasing procedure
3. Provide tool information and a quick search procedure
4. Redesign / 5S tool storage
5. Minimize storage footprint

Deliverables:

- Working prototype of the electronic loan out system
- Working prototype of the electronic purchasing procedure
- Training instructions for new employees

Expected Project Benefits:

- Reduce search time for new tool
- Reduce material associated with current purchasing procedure
- Eliminate guide/student interaction for submitting purchase orders
- Improve student and guide experience

Core Team Members:

- Keleigh Bicknell – Project Manager
- Alex Resnick – Lead Web Developer
- Brian Woodard – Lead Engineer
- William Darlington - Facilitator

Strategy & Approach

Assumptions & Constraints:

1. Assume IT support will be available for student ID scanning capability
2. Computer in office can be reconfigured to accommodate card swipe
3. Prototype will be tested by MSDII students prior to Gate Review
4. Materials can be purchased within the allotted budget

Issues & Risks:

Project

- Student buy in to the new procedure
- Electronic purchase order approval may get lost in guides email
- Implementing card swipe functionality without computer science major
- Understanding implementation of bar code scanning
- Scope creep

Team

- Understanding team dynamic
- Web design new to many team members
- Scheduling

Resources

- Responsiveness of customers
- External resource time constraints