IPro 339

PIN PALS

Burgess-Norton Manufacturing Company
The Problem

- Develop a material handling solution to eliminate nicks on the piston pin
- Must be efficient and practical
- Burgess Norton is the sole beneficiary
Goal

- Assess Burgess Norton existing system
- Identify other methods of opportunity
- Develop multiple solutions
- Provide Burgess Norton with a solution
Organization and Tasks

Team Leader

Data Team
- Collect
- Analyze
- Report

Testing Team
- Impact
- Hardness
- Systems

Passive Design Team
- Research
- Design

Active Design Team
- Research
- Design
Progress Toward Goals

- Visited the plant twice
- Tested samples
  - Built testing apparatus
  - Performed hardness testing
  - Conducted impact testing
- Potential solutions
  - Spring Box
  - Ammo Box
  - Conveyor System
  - Robot - Pick and Place
Major Obstacles

• Identify the cause of the problem
• Ethical Issues
  • Confidentiality
  • Potential Job Losses
• Resolution
  • Ethics Bowl
  • Personal Assessment of Plant
  • Testing
Anticipated Major Challenges

- Developing arguments and support for each solution
- Design Proposal
  - Pending approval from Burgess Norton
- Prototype
- Cost and Funding
  - Practicality Reasonable
- Maintainability
Questions?