

# **2015 - 2016 Research and Development**

## **New Product Development Challenge Final Summary and Reflection Report**

### **Objective**

Students will develop a **Product Innovation Challenge** project summary and reflection paper. Students will use their researched results regarding the investigative process and development of their final product. Students may use any information and digital photos taken in class or researched information from the Internet, textbooks and/or reference books to find all relevant information to complete this project.

### **Report Criteria (200 pts)**

1. Cover Page - sheet to include:
  - Title of Report
  - Company Logo
  - Company Name
  - Students Name w/Job Titles
  - School
  - School Address
  - Hours
  - Class
  - Completion Date
  - Instructor
  - Part Name / Product Name
  - Picture of Project
2. Report Format:
  - Academically written in your own words
  - Arial Font
  - 11 or 12 pt Font
  - 1" Margins
  - Double Spaced
3. Report Procedures:
  - A part of the **Design Process** is documenting your progress, solutions, and results. The major components of this reporting system include:
  - **Problem** - in your own words, state the problem you were trying to solve.
  - **Material List** - list all the materials used in your solution. This should include Sintra, fasteners, drill bushings, etc.
  - **Building Process** - give a brief summary of how you built your solution. This should be stated so that someone else reading it can build your solution.
  - **Preliminary Testing** - give a brief summary of any testing you preformed prior to the due date. Be sure to describe any changes you made to your solution as a result of this testing.
  - **Final Product Cost** – give a brief summary of how the cost of your product relates to the final product quality.

- **Summary** - explain what happened to your solution on the due date. State whether it was successful or unsuccessful and why.
- Other Notes about the Summary Report:
  - If you need to include additional material in your report, which is not listed here or in the design brief, feel free to do so.

## **Documentation**

Use the list of headings below to assist in writing your report. Add any additional information to your documented report that will help support all of your research findings. To make the process easier have each team member work on a portion.

**Note:** Answering only the questions below will get you partial credit; use your educated opinion and judgment to develop a report that reflects the quality and integrity of your project.

**Note:** This is an Essay style paper; not a question and answer - include introduction, body, and closure.

### ***Containing responses to:***

- What was the significance of this project to your education and growth?
- What did you learn about other students during the course of the project including their similarities or differences to you?
- What did you learn during the project that enhanced your learning gained in the core academic classroom?
- What impact might this project have on your lifelong learning process?
- What impact did this project have on your everyday life?
- What insights did you gain through the development and build of this project that might assist you in your career or in selecting a career?
- What did this project teach you about your community involvement, citizenship, and civic responsibility?
- What is the relationship of your project to the “real world”?
- How were you able to contribute to the overall project in the class or group setting?
- What did you do or what about this project made you feel proud?
- What was the most difficult part of your work during this project?
- If you were to start at the beginning of this project again, what would you do differently the second time around?
- What resources are missing from this project and how can you as students remedy this situation? How can the instructor?
- What was the purpose of this project and how can we help people outside of this class better understand the nature of the project and its purpose?

- What cultural influences does this project encourage or discourage, in particular attitudes or something else?
- What part of the project presented you with the greatest challenge?
- What did you enjoy about this project and why?
- What did you not enjoy about this project and why?
- What would you change about the project to make it better and why?
- Would you recommend this project to future students?

### **Self Evaluation**

Evaluate yourself using a scale of 1 to 100, with 100 being the most, in the 3 areas of ***Design Quality***, ***Fabrication Quality*** and overall ***Participation***. Give details as to why you believe you deserve this score based on facts. Be honest with your evaluation and consider the time spent on this project.