Technical Communication – C768

TASK 1: IMPLEMENTATION OF TECHNOLOGY SOLUTION

Paul Romero

Student Id: #000983624

CONTENTS:

Page 1: Cover Sheet

Page 2: Contents

Page 3: Executive Memo

Page 4: Technical Document

Page 5: Writing Process

Page 6 - 7: Audience Analysis

**Attention:** Executive Board

**CC:** Executive Office, Financial Office

**RE:** New Technical Opportunity for Increased Production Reliability

An opportunity has recently been identified to address the current problems associated with the timely filling of our orders by some of our external suppliers. This issue originally began when we moved from producing our custom “O” rings in house and began using outside suppliers for their production. This move was made primarily due to the high costs of our original manufacturing process and was completed in order to maintain our competitiveness in the marketplace.

Since that time, we have identified the considerable cost of not having the required “O” rings in order to meet our own in house, on time production metrics when our suppliers fail to meet our tight requirements for order deliveries. The ongoing cost to our reputation and brand over the last year, each and every time we have had to delay one of our customers’ orders, has been reflected in the loss of some of our oldest and most reliable accounts.

The potential solution our department has identified, would be to move the production of the custom “O” rings back in house, using much newer technology. The newer process appears to be much lower cost than our original, abandoned manual process, and may even prove to be preferential to our current costs from outside suppliers.

While at a technical conference our technical team had the opportunity to talk with various 3D printing technology providers who advised us that the cost to print each custom “O” ring in house could be lower than the cost of having them manufactured through outside suppliers. While we have some initial figures based on metrics given to us from these companies, which support these assumptions, a full financial review needs to be completed.

While we have identified entry costs in the neighborhood of $30,000.00 associated with moving to the new printing system, we believe those costs could potentially be recovered within the first year of moving the production back in house. We have also created a basic technical document which we will be sending out to technical teams and various stakeholders for review.

Once the functional areas review this opportunity and we have collected feedback, we would like to schedule some time with the board to answer questions, and to ultimately request and receive approval to move forward with the development of the project. Should you have any questions, concerns, or issues we should be aware of, please feel free to contact me at your earliest convenience.

Sincerely,

Paul Romero

IT Director,

Plumbtech Motor Corp

**New Internal 3D Printing Process for “O” Rings**

|  |  |
| --- | --- |
| https://m.media-amazon.com/images/S/stores-image-uploads-na-prod/a/AmazonStores/ATVPDKIKX0DER/09b72074463ce8e545e3eef2b32652ea.w2000.h2000._SX1000_SY380_.jpg  **3D Printer?**  The Sindoh 3D printers can be used to produce objects on demand. They are fast, reliable, and can greatly simplify storage needs for supplies. They are completely compatible with third party filaments, allowing them to print objects made from many different source materials. Sindoh also offers training, maintenance, and product support contracts for all of their 3D printing devices.  Source: <https://3dprinter.sindoh.com/> | **How will this help us?**  This new 3D printing process will enable us to produce the required “O” rings for our production lines in house. It will eliminating the need for excess warehouse space and reduce the delay between production runs as the “O” rings will now be produced on demand as part of the production line. This process will also eliminate the need for us to work with outside vendors to procure and source our custom “O” rings. With the 3D printers being compatible and compliant with our existing mechanical cad software, there will be little technical work required to get the new printers set up for the existing production lines. We also believe the IT Department can easily handle the regular servicing and technical requirements of the printers, treating them as if they were just another standard printing device on the network. |
| **Draft Implementation Phases Upon Project Approval** |

Writing Process

**Describe the writing process used to develop the artifact for each audience:**

The writing process for each artifact consisted of 3 main phases consisting of various stages. Planning, Drafting, and Revision.

**Planning:**

First, I identified a topic, “3D printing”, which I decided would be an interesting topic to use for this assignment. Second, I identified the primary and secondary audiences for the two required artifacts. For the memo the primary audience was executive, while the technical document was directed to technical staff. Third, I identified a probable problem and solution to use for the assignment. Last, I identified an actual 3D printing company that had a 3D printer capable of solving the problem I had created.

**Drafting:**

For each document I created an initial draft using the notes from the planning I had created. The initial drafts had no specific formatting and consisted of various requirements I had identified for the assignment. Using the requirements as placeholders, I replaced each in turn with the identified information from my planning notes until my rough draft for each item was completed.

**Revision:**

The final process consisted of revising the draft for each document multiple times until I felt it was sufficient for someone else to read and provide feedback. Once I received feedback from someone else, I incorporated the feedback for each document back into itself. For the final stage of the last phase, I applied formatting to each document, once again relying on my initial ideas from my planning notes.

Audience Analysis

**Explain how analysis of the following audience attributes informed the purpose for each artifact:**

Audience 1: The primary audience for the executive memo consists of the executive board. I also identified the executive office staff and financial department staff as secondary audiences.

* Subject knowledge

The executive board will have limited technical knowledge and will be more concerned with the effects of problems and how changes could affect the entire organization. The financial office will also have limited technical knowledge and will be more concerned with the financial aspects of the issue.

* Position in the organization

The executive board is the top decision makers in the organization and their approval will be required in order to proceed with any project.

* Personal attitudes

The executive board is used to being treated with respect and generally does not have the time to read long memos with too many details. Their primary concern will be the wellbeing and profitability of the organization.

* Reading style

The executive board should be expected to be busy and would need to have a short and to the point memo. They will not want to get tied down with technical details, but will want an accurate portrayal of the situation.

* Types of readers (primary, secondary, international)

The executive board is the primary set of readers as they are the decision makers. The executive office and financial department staff are secondary readers as they are assistants to the decision makers.

Audience 2: The primary audience for the Technical Document is the technical and engineering staff for the organization. The secondary audience is general staff or end users.

* Subject knowledge

The technical and engineering staff for the organization will have at least a basic technical knowledge of the items included in the technical document and would be more interested in technical details. The end users or general staff that may see the document may have no knowledge related to the subject matter.

* Position in the organization

The technical and engineering staff are not decision makers, but are the ones who will need to support and maintain the equipment. They are subordinates and can provide technical expertise and opinions for the decision makers.

* Personal attitudes

The technical and engineering staff are interested in the technical aspects of the document and are interested in any changes that may affect their roles.

* Reading style

While the technical and engineering teams may see the message as important, they may also easily dismiss the message as they are generally busy fulfilling their day-to-day roles. As such, I included a link in the document so they could learn more without over burdening the document with excess information.

* Types of readers (primary, secondary, international)

The technical and engineering teams are the primary readers for the technical document as they are responsible for supporting the infrastructure and would be directly impacted by any changes. They also could be called upon to provide opinions regarding any changes. The general staff and end users would be a secondary audience as they also would be affected by any changes.