

SUB - Automatic

Problem Statement

Design and build a sub folding machine that meets all governmental regulations and requirements, while being a safe, efficient, practical and cost effective solution.

Objectives

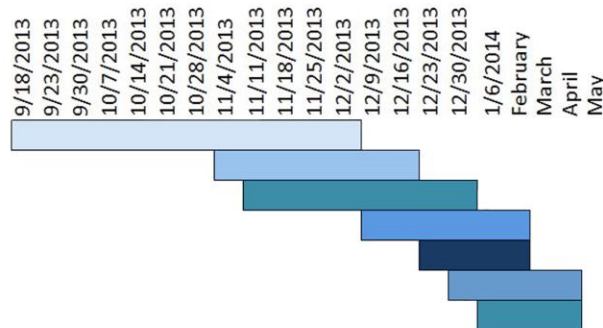
- Reduce employee involvement in a tedious task
- Process automation and expandability
- Utilize vacuum sealing technology and thermal plastics to extend the product lifespan

Timeline



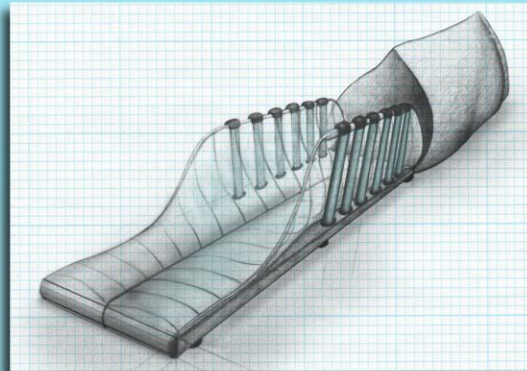
Tasks

Literature survey
 Conceptual Design
 Cost Analysis
 Solidworks Design
 Analytical & Structural Analysis
 Construction
 Prototype Testing



Proposed Design

- Mechanical design with limited moving parts
- Meet FDA and ISO standards
- Build in an ISO 9000 Certified facility
- Modular design for expandability and maintenance



Motivation

- Gain business and engineering knowledge with consumer goods
- Reduce time spent on tedious yet necessary duties
- Enhance the quality of end products

Prototype and Testing

For practicality, certain parts of the prototype will be built out of PLA and ABS. This will allow rapid iterations at a reduced cost while allowing for minimal time investment. Key components will be simulated in ANSYS and SolidWorks using specified materials.

Team Members



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