

Thesis Proposal

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Problem statement

- Uncertainty(What to produce?)
- Not acceptable level of quality(Defect products)
- Unreasonable material use.

Goal

Exploration of the 5/01 Vario Vacuum Casting Machine and promotional demo with acceptable quality level for the market.

Objectives

- Choose right direction in the market for the demo product
- Achieve right order of stages in technological process
- Optimize the quantity of used material in vacuum casting process
- Achieve acceptable quality level.

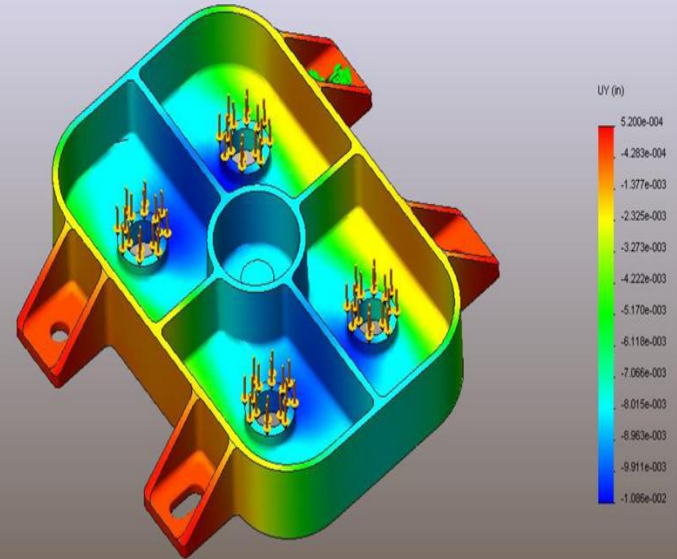
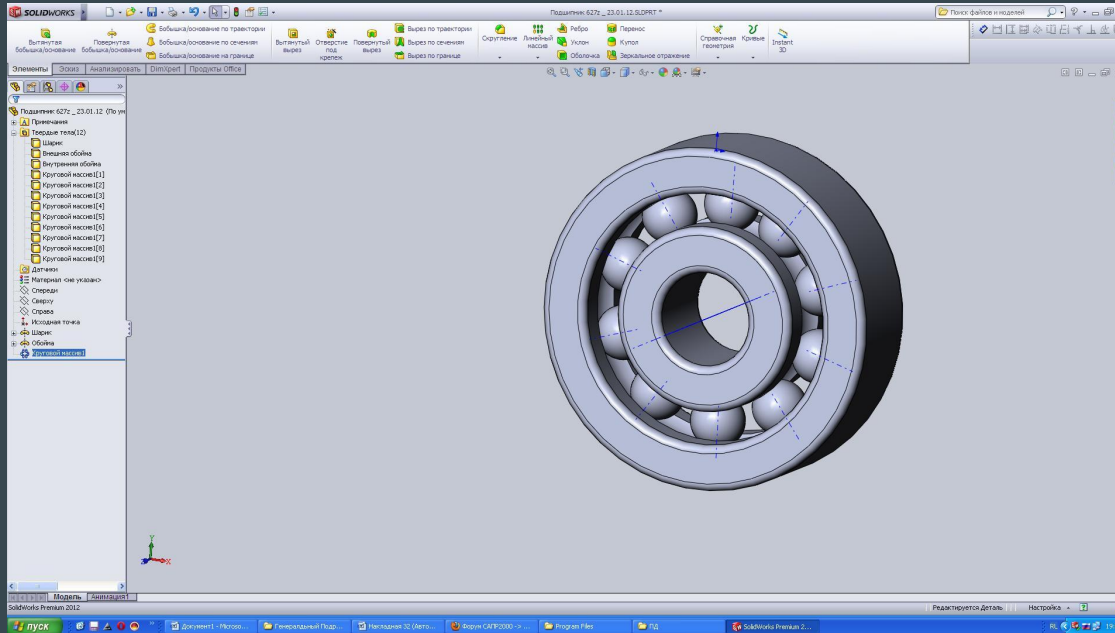
Methodology

Choose what to produce.

- Defense industry
- Food industry
- Health industry.

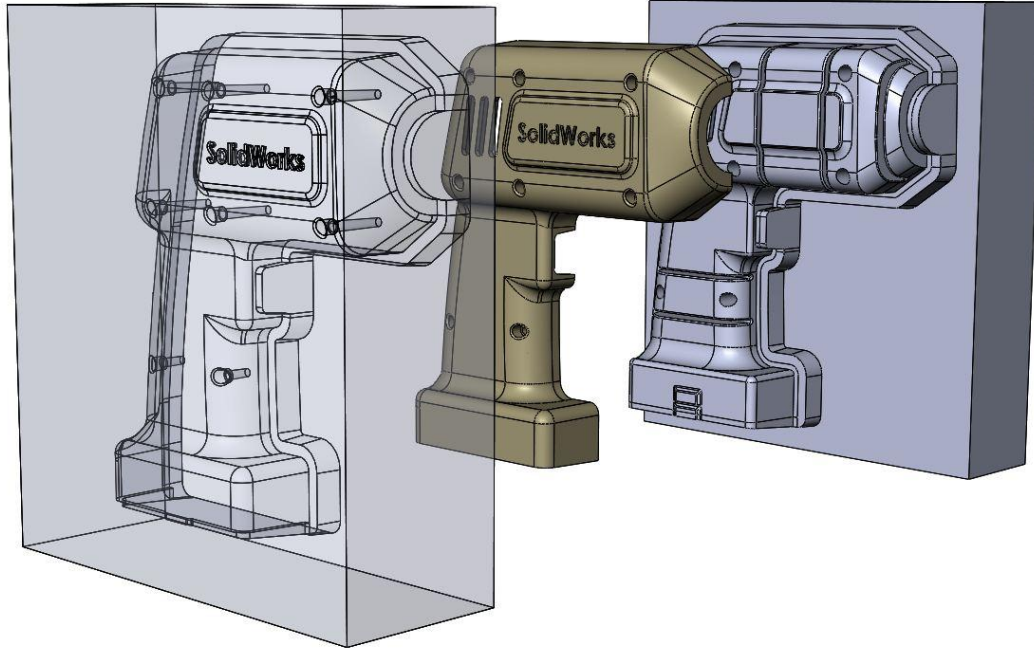
Methodology

Prepare 3D model of selected product its simulation and outcome analysis.(Solidworks)



Methodology

Design the mold using Solidworks. (Position of master model in mold, mold's size)



Methodology

- Define process plan for casting process.
- Define casting parameters based on company recommendations and experiments.
- Define evaluation methods for the product quality.
- Conduct experiments and create a small batch of prototypes.
- Economic analysis.

Thank you for listening.