

Introduction to Fabrication

Design for assembly and Milling Operations Project

The final project for introduction to manufacturing will require students to mill a business card and pencil holder out of hard wax. Students will be able to keep this practical project for their own use. Students will be graded on the use of the mill, correct dimensions and clean lines. Please refer to your previous projects and take your time in completing this project. Please use your best judgement and be safe when operating heavy machinery.

Goals:

- 1. Use knowledge of manufacturing processes to read, understand and create a milled part from a design drawing.
- 2. Identify and correctly use milling tools, including cutters and dimensioning tools.
- 3. Implement knowledge of work holding to safely and correctly handle parts while simultaneously not damaging them.
- 4. Hands on experience with useful machinery

Deliverables:

- 1. Memo: A memo should be drafted after you create your part. Details are explained below. (30 points)
- 2. Business Card and Pencil Holder Finished Part: Correctly manufactured part. Full details are below. (70 points)

Detailed Requirements:

Business Card and Pencil Holder: You are to create a business card holder using the mini mill in 110. It will be created out of wax and will match the dimensions provided. Use the online module for the final project to aid in your construction.

Memo: A short memo should be written after the project is completed. It should include what the project was, how it was completed and areas for improvement. This should be turned in with your part. Both will be graded and returned to you.