

Puzzle Cube Design Project

Directions: Design a puzzle cube to meet the constraints provided in the design brief. Complete the following directions for your puzzle cube.

1. Multiple entries must be included in the engineering notebook that document the process from brainstorming through final modeling.
 - Table of contents entry(s) for this project.[10pts]
 - Brainstorming sketches. (minimum of 3)[10pts]
 - Commentary on progress with each days entry associated with the project.[10pts]
 - Evidence of multiple entries commensurate with the length of time spent on the project.[10pts]
 - Ideas that you generate during the project whether ultimately used or not.(Could be a part of comentary.)[10pts]
 - Screen shots of your virtual model at a few points during your virtual construction process.[10pts]
 - Screen shot of your final virtual model.[10pts]
 - Summary of project including your thoughts on:
 - what went well[10pts]
 - what did not go well[10pts]
 - what you would do if you were to pursue the project further.[10pts]
2. Create the necessary part files to build your cube. [40pts]
3. Assemble the components to create a 3D model of the cube. [40pts]
4. Create an animated model to show how the cube can be assembled by creating an ipt file.[20pts]
5. Create a Powerpoint to present your product. It should contain the following information.
 - (a) A title slide with your name and a fictitious company for which you are designing the cube. [10pts]
 - (b) A design brief narrative that introduces the need for the cube. [10pts]
 - (c) Appropriate constraints from the design brief. [10pts]
 - (d) A picture and brief pro/con list for existing products that are similar. (At least 3.) [10pts]
 - (e) Sketches that have been scanned from your brainstorming process. [10pts]
 - (f) A decision matrix that indicates the criteria you used to choose among the designs generated during the brainstorming process. [10pts]
 - (g) A screen shot of your design. [10pts]
 - (h) An exploded view of your design. [10pts]
 - (i) A brief pro/con list for your design. [10pts]
 - (j) A listing with brief explanation of ways you can improve your design in the future. [10pts]