Activity #3 - Dr. Frankenstein's Die

This skills activity is intended to be a fun problem solving activity designed to develop and or sharpen your design and manufacturing skills.

This activity completion date is Friday, Oct. 5th. Your completed die must have your name on it and be placed on the designated shelf in the Design Den by 4pm. Photo documentation and a short project reflection must also be posted to your Student Engineering Notebook by 4pm.

All required hands-on tool quizzes must be complete prior to beginning the manufacturing phase of this project.

In Mary Shelley's Frankenstein Dr. Frankenstein's Monster is assembled from a collection of body parts exhumed from the local cemetery. In somewhat similar fashion each of you will design, build & assemble a 5" die.

Construction Requirements:

1. 1 side of the die must come from a 2" x 4", 2" x 6", 2" x 8" or piece of wood.
2. 2 sides must be made from ¼" plywood
3. 1 side must be made from masonite
4. 2 sides must be made from ½" plywood
5. All numbers should be centered on each side of the die
6. The #1 must be made from a 1 ⅝" hole saw cut all the way through the material
7. The #2 must be made by a ⅜" drill bit cut to a depth of ¼" into the material
8. The #3 must be laser vector score cut
9. The #4 must be laser vector cut through the material
10. The #5 must be made by a 31/64" drill bit cut all the way through the material
11. The #6 must be made laser raster cut.
12. All sides must be attached using drywall screws

Documentation & Reflection Requirements:

- You must photo document the production of each side of the die, the final assembly, and the finished product (8 pictures total)
- You must attached, embed, or upload a photograph of your design plan which should include the dates and times you plan to work on your project & work to be done during that time. This work plan should also contain a list noting which side of the die will be produced from which material.
- Short paragraph outlining your project design. How the project unfolded/went. What you learned in terms of tool skills and/or manufacturing as a result of this activity.