



PROJECT-BASED LEARNING: REPURPOSING PROJECT

Description

One person's junk is another person's treasure.

You will have the opportunity to take items that would normally be discarded and create a functioning industrial sculpture from them...

A pipe lamp!!

Deliverables

- 3D SolidWorks Design
- Completed Budget Sheet
- Parts order form
- Finished product

Requirements

In order to successfully create your functioning industrial sculpture, you must:

1. Create 3D data of your base
2. Create 3D data of each part of your lamp
3. Assemble the entire lamp in SolidWorks
4. Complete the budget form showing you did not exceed your project budget
5. Submit a parts order form
6. Build a working lamp



DIRECTIONS

1. Select a base for your project
2. Create crude 3D geometry for your base in SolidWorks or NX
3. Research (pipe lamps, steampunk lamps, industrial lamps) to get some inspiration for your projects
4. Do a rough sketch of your lamp design using graph paper
5. Create 3D geometry from your sketch using SolidWorks or NX
 - Note: Each part must be drawn individually and they assembled
6. Assemble your project on SolidWorks or NX
7. Go to Lowes.com and begin researching your lamp parts
8. As you decide on parts, fill in your part order & budget sheet
 - Note: Unless I tell you otherwise personally, we are only using 3/8" diameter pipe for this project
9. Meet with Mr. Mandl when you have completed steps 1 thru 8
10. Make changes as recommended by Mr. Mandl
11. Meet with Mr. Mandl again to get final project approval
12. Begin all steps of building: Rust clean-up, priming, painting, etc
13. Assemble your project without the use of tools to be sure everything goes together properly
14. Disassemble and begin final assembly with wiring, switch and bulb
15. Clear coat entire project minus and glass parts – bulb, gauge lens, etc.