Weekly Design Evaluation – Week 6 – Monday 5/7/18 Name_____

Class Design Section - 50 points total

Out of Class Design Project – 20 points total. – SolidWorks files to be saved and sent as a "Pack and Go" zip folder with 5 parts and the assembly to be sent by Sunday at midnight. Hand in this checklist at the instructor's desk by 9:45am at the end of the evaluation.

- Standard ANSI Inch, 3 units after the decimal (3pts)
- Base Plate fixed to the Origin (2pts), planes coordinated (2pts)
- Wheel Mount Fully Defined and mated in rectangular cut (1pt)
- First Hinge Plate Fully Defined and mated in rectangular cut (1pt)
- Hinge Plate with Configurations (2pts)
- Remaining Hinge Plates, five, with flexibility (1pt)
- Pins - six, mated in Hinge Holes, fully defined, no rotation (2pts)
- Wheel defined with rotation (1pt)
- Wheel Guard fully defined (1pt)
- Toolbox Machine Screws, two, with nuts and washers, fully defined (no rotation) (2pts)
- Appropriate motion (2pts)
- Extras and errors

In Class Design Project – 30 points total. The "Schmean's Hook Assembly" saved and sent as a "Pack and Go" zip folder with 2 parts and the assembly to be sent by 9:45am at the end of the evaluation.

"Schmean's Hook Base" SolidWorks part file – 10 points total

- Open Week 2's "Schmean's Hook" part file and save file as "Schmeans-Hook-Base-Modify" (1pt)
- Keep original settings - Standard ANSI, units inches, 3 digits after decimal (1pt)
- Base Plate sketch modified, Hook feature sketch modified – per drawing (2pts)
- Hook cut per drawing (1pt)
- Hole Wizard Holes (1pt)
- Fully defined sketches, rename your features (1pt)
- Mass and Center of Mass (3pts)
- Extras and errors

The "Schmean's Hook Stainless Steel Hook" - 10 points total

- Units in inches, ANSI dimensioning standard, 3 digits after decimal, Material AISI 312 Annealed Stainless Steel (1pt)
- **Origin location, orientation, correct planes (1pt)**
- Fully defined 3D sketch with dimensions, model integrity (1pt)
- 3D Sketch - sweep sketch path, sweep sketch profile, sweep feature, Fillet (2pts)
- Rename your features and path sketch (1pt)
- Part appearance Chromium Plate (1pt)
- Mass Properties (3pts)
- Errors and Extras

The "Schmean's Hook Assembly" - 10 points total

- Standard ANSI Inch, 3 units after the decimal (1pt)
- Hook Base fixed to the Origin, planes coordinated (2pts)
- Stainless Steel Hook inserted
    - Concentric mate (2pts)
    - Right planes mated (2pts)
    - Limit Mate (angle): 0 degrees and 175 degrees (2pts)
- Appropriate Motion (1pt)
- Extras and errors

Weekly Design Evaluation - Week 6 - Final Design Section - 50 points total – SolidWorks files to be saved and sent as a "Pack and Go" zip folder with 5 parts and the assembly to be sent by Sunday at midnight.

FDP Parts 20 points total, evaluating five parts.

- Include material (1pt)
- Units, ANSI dimensioning standard, 2 digits after decimal for MMGS, 3 units for IPS (1pt)
- Origin location, orientation, symmetry, correct planes (2pts)
- Fully defined sketches with dimensions (2pts)
- At least 6 Features or less with more complicated sketches (2pts)
- Rename your Features (1pt)
- Descriptive part name – what is it? (and it's not your name or FDP) (1pt)
- Extras and errors

FDP Part modifications 20 points total

- Embossed or Debossed Text (10pts)
    - Pick a FDP part and include an Embossed or Debossed Text Feature per the video in the Week 6 Instructional Video Page – label this part with the word TEXT in capitals included in the part name. (4pts)
        - On a raised or depressed parallel or co-radial surface (2pts)
        - Must be clear, easy to read, makes sense (2pts)
        - Centered, fills the area (2pts)
        - Extras and Errors

- Rib Feature (10pts)
    - Pick a FDP part and include a Rib Feature per the video in the Week 6 Instructional Video Page – label this part with the word RIB in capitals included in the part name. (4pts)
        - Properly defined (2pts)
        - Angled to support another feature (2pts)
        - Draft (2pts)

- Design Table (10 + pts Extra Credit)
    - Pick a FDP part and include a Design Table per the video in the Week 6 Instructional Video Page – label this part with the word DESIGN TABLE in capitals included in the part name. (4pts)
        - 3 dimension variations (3pts)
        - 3 suppressed features (3pts)
        - More for more - up to 20 points

FDP Assembly 10 points total, evaluating five parts in an assembly.

- Units, ANSI dimensioning standard, 2 digits after decimal for MMGS, 3 units for IPS (1pt)
- Base part fixed to the Origin, planes coordinated (2pts)
- 5 parts mated to the base part and/or other parts (5pts)
- Fully defined parts that don't move (1pt)
- Appropriate motion for parts that move (1pt)
- Extras and errors