

Three-Dimensional Modeling, IET-265 Name: _____

Winter 2013, Week 9

In Class Evaluation (ICE) Day and date: _____

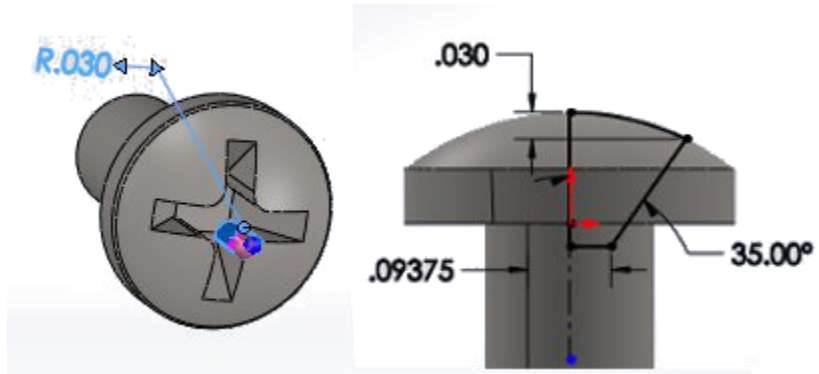
Screw, Plate, Iron Pipe, Screwdriver, Flashlight Housing, 90 points total

Vote on the Revolved Features part image from Week 8 in the Design Gallery on the website that you find exceptional. Vote for your first 3 choices by number. (10pts).

1st. _____ 2nd. _____ 3rd place. _____

The Screw ED 4.4 (20 pts) Use the image below, make modifications to your Screw model that you designed last week.

- Completeness with symmetry, notice the new location of the Origin. (4pts)
- Material, AISI 316 Annealed Stainless Steel Bar (1pt)
- Correct starting plane, Front (2pts)
- Fully defined sketches with proper dimensions and sketch relations (2pts)
- Proper precision on appropriate dimensions (2pts)
- Rename your features (2pts)
- Find the Mass, precision at 4 units after the decimal _____ (4pts)
- Find the Center of Mass at 4 units after the decimal
x _____, y _____, z _____ (3pts)
- Extras and errors



The Plate, ED 4.9 (20pts)

- Completeness with symmetry, location of the Origin in the center bottom of the revolved feature. (2pts)
- Material (1pt)
- Correct starting plane (1pt)
- Fully defined sketches with proper dimensions and sketch relations (2pts)
- Rename your features (1pt)
- Find the Mass, precision at 4 units after the decimal _____ (2pts)
- Find the Center of Mass at 4 units after the decimal
x _____, y _____, z _____ (3pts)
- Change A to 70, B to 60 and C to 15 (3pts)
- Find the Mass, precision at 4 units after the decimal _____ (2pts)
- Find the Center of Mass at 4 units after the decimal
x _____, y _____, z _____ (3pts)
- Extras and errors

The *Screwdriver*, SG (10pts)

- Completeness with symmetry (1pt), locate the origin between the handle and the shaft. (1pt)
- Fully defined sketches with proper dimensions and sketch relations (2pts)
- Handle color (1pt)
- Rename your features (1pt)
- Proper Loft Feature (2pts)
- Loft Start/End Constraints, start Tangency to Face end Normal to Profile (2pts)
- Extras and errors

Iron Pipe, (30pts)

- Completeness with symmetry, location of the Origin (4pts)
- Material, Ductile Iron (2pts)
- Correct starting plane, Right (2pts)
- Use a value for the Outside Diameter of a 6 inch cast iron pipe from the Mueller Co (2pts)
- Loft Feature for the taper on the flange per the drawing using guide curves (2pts)
- Hole Wizard Hole, 13/16", Through All, on a 11.925" hole circle (2pts) circular pattern (2pts)
- Cut the Inside Diameter using data form the Mueller Co (2pts)
- Sweep Cut using the profile shown for a pipe gasket (3pts)
- Find the Mass, precision at 4 units after the decimal _____ (3pts)
- Find the Center of Mass at 4 units after the decimal
x_____, y_____, z_____ (6pts)
- Extras and errors

Extra Credit *Flash Light Housing* (10pts)

- Completeness with symmetry (4pts), location of the Origin (1pt)
- Material (1pt)
- Correct starting plane (1pt)
- Fully defined sketches with proper dimensions and sketch relations (3pts)