Project 3
Due 6 May 2021

Dr. Smith is now convinced he wants to install a St. Peter's Cross mechanism with his leg vise, but he wants to size the pieces to limit the bending deflection. This project will build off the analysis already performed in Projects 1 and 2.

- Find the maximum principal stresses in the vise screw (20 points).
- Design the St. Peter's Cross members such that under the loading case designed for they deflect no more than 0.5 in. Compare at least three different beam designs (cross-sections) in your analysis (50 points)
- Do the stresses and displacements you have found seem reasonable for your chosen materials? What surprised you in your analysis? (20 points)
- Your overall presentation quality (legibility, professionalism, grammar) will also be worth 10 points