



# AEE 461 Design of Aircraft Structures

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## Task #1 Calculation of Sectional Properties

## Problem:

In figure, cross-section of spar and upper and lower skin is presented. In order to calculate the stresses due to bending, it needs to be calculated some sectional properties such as moment of inertia. Therefore, please prepare a MS Excel® tool to calculate the sectional properties of a general section such as given and find the followings:

- Choose a proper Reference Coordinate System
- Location of the center of gravity (CG)?
- Total Area?
- Second Moment of Inertia with respect to CG?

