

EMCH 13: DESIGN PROJECT - Concept Plan

For Individual Concept Plans, complete this form, print your name only and attach to Team Plan. For the Team Concept Plan, combine ideas and reach a consensus, then complete this form and print all team member names; attach individual plans and turn in the packet.

Team: _____

Member(s): _____

Give mfg'r/model of one competing product: _____

Determine the primary load(s) to be supported: _____

List three major components to be designed (names must correspond to concept sketch):

1. _____ 2. _____
3. _____ Other _____

For each component listed, rank order key material properties important in their design, e.g., strength, stiffness, corrosion resistance, conductivity, thermal range, etc.

Component 1. _____

Component 2. _____

Component 3. _____

Other. _____

For each component listed, rank order three material choices which comply with the above property requirements:

Component 1. _____

Component 2. _____

Component 3. _____

Other. _____

Draw a Concept Sketch (isometric or 3-D) of the design on the backside of this form. Call out all components (Use the client's names). If call-outs are numbers, add a parts list.

What is your next task? _____

Comments, questions or concerns:

Concept Sketch. This sketch is your early concept. It should be a three-dimensional isometric. Its purpose is to guide the design before the drawings are completed and it serves as a simplified sketch for all team members to refer to. Use it to assign tasks, as a reference to parts and their names in forming models and doing the corresponding analyses. For a consistent, organized design process, every team member should have a copy. Components need not be detailed nor presented ‘as finished’, but all of them should appear and be called out. Revisions must be supplied to everyone.