

Client Design Brief Sprint

Difficulty Intermediate	Time 2 class periods	Type Skill Builder
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Background

Engineering projects often begin with incomplete client statements such as “make this easier” or “we need a better holder.”

Engineering Problem

Interview a client, convert their needs into a design brief, and recommend a concept.

Learning Objectives

- Ask effective stakeholder questions
- Separate needs from proposed solutions
- Write measurable requirements
- Present and justify a concept

Materials

- Client interview form
- Engineering notebook
- Sketching tools
- Decision matrix template
- Presentation materials

Procedure

1. Pair with a classmate and assign client and designer roles.
2. The client chooses an approved small problem but does not prescribe the final solution.
3. Conduct a five-minute interview using open and follow-up questions.
4. Summarize the problem and ask the client to confirm your interpretation.
5. Create at least five criteria and three constraints, including measurable targets.
6. Generate three concepts independently before discussing them.
7. Use a decision matrix to select a recommendation.
8. Present the recommendation in two minutes and record client feedback.

Engineering Requirements

- Ask at least eight interview questions
- Include measurable criteria and clear constraints
- Generate three distinct concepts
- Use a decision matrix
- Show how the final recommendation responds to client needs

Constraints & Safety

- Problem must be safe and classroom appropriate

- No personal or sensitive information
- Designer may not simply build the client's first suggested solution
- Complete within two class periods

Deliverables

- Interview notes
- Confirmed problem statement
- Criteria and constraints
- Three concept sketches
- Decision matrix
- Two-minute recommendation
- Client feedback

Reflection Questions

1. Which question produced the most useful information?
2. What did the client want that was not stated initially?
3. How did feedback affect the recommendation?
4. What would you prototype first?

Engineering Tip

Ask "What are you trying to accomplish?" before asking "What should it look like?"

Common Mistake

Clients often describe a preferred solution instead of the underlying need. Your job is to uncover the need.

Stretch Goal

Switch roles and complete a second brief in half the time.

Career Connection

Design consultants, systems engineers, and project managers translate stakeholder needs into requirements and concepts.