

Hw 3 | Project 1: Product Concepts

Submit as a team

Learning objectives addressed

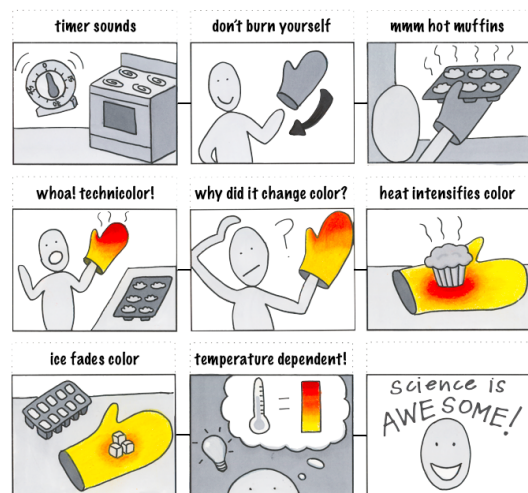


Relevant course material

Your work on this assignment will be benefited by Lecture 4: Communicating & Critiquing Design + Teamwork.

Recommended readings

- Alissa Millenson's [Design Research 101: Prototyping Your Service with a Storyboard](#) (really good tips for effective storyboards)
- [Chapter 3 of Scott McCloud's "Understanding Comics"](#) (optional, but fun -- explains how to write comics!)



Mission for project 1:

Use the power of mobile technology to transform the experience of being a tourist on Harvard campus.

The Product Concept Assignment

In this assignment, you will build on the insights that you have developed in the last assignment to invent truly creative (i.e., novel, surprising and appropriate) product concepts.

Part 1: Restate/refine your design brief

Task: Restate your design brief from HW2. Refine it if you want. Make sure the entire team is on board.

Notes: Your design brief can change as you progress through the project, building on new learning, new ideas or a change of heart. But make sure that these changes are communicated, and that it is clear what your current objectives are. These should be communicated to the teaching staff, but more

importantly make sure you are all on the same page.

In any case, use this as an opportunity to edit your brief and identify its essential component.

Deliverables: Your (refined) design brief.

Part 2: Ideate

Task: Generate *at least 5 x N* distinct product concepts that meet your design brief (where N = the number of people on your team; so 3 person teams should generate at least 15 ideas, 4 person teams should generate at least 20 ideas).

Notes: For now, go for quantity. Boring ideas are fine. Crazy ideas are even better. A twist on somebody else's idea counts as a new idea. Combining some aspects of several existing ideas can often lead to interesting new ideas.

We'll talk about this more in class during lecture on Creativity, but the following is a good skeleton for a team-based ideation session that you might choose to use:

1. As a team, make sure that everyone understands the objectives and constraints;
2. Generate ideas individually until each person has a few ideas of their own
3. Share at least two ideas per person
4. Now you can ideate together

Important: While you ideate, put each idea on a separate piece of paper or post-it note.

Deliverables: Take a picture of all of your ideas. Yup, we want to see that you've worked together and that you didn't stop at your first idea.

Part 3: Develop product concepts

Task: Pick **2xN** top ideas (where N=number of people on the team) and develop them into more complete product concepts.

Notes: Select ideas that are individually novel, surprising, appropriately meet your design objectives and that could be made real some time in the next decade. But also make sure that the set is **diverse** (you do not want all six to be variations on the same theme, though having pairs of related ideas is ok).

For each selected idea:

1. Come up with a product name.
2. Create a *storyboard*.
3. Provide a one-paragraph description of the concept idea. The one paragraph description should make it clear what the product **does** and what **benefit** it provides to the user(s)

Important: Each storyboard should be comprised of 5-10 panels, and should fit on two pages of regular printer paper. Use a Sharpie or a similar tool to draw them. **Ballpoint pen or pencil is not acceptable.** If you are using anything finer than a Sharpie, then you are putting in too much detail!

Your storyboards do not have to be pretty, but they have to be clear, legible, and they have to get the message across. Be professional. Here's [an example](#).

A successful storyboard indicates the problem or frustration that you are focused on. It shows how your product addresses it. And indicates what a successful outcome looks like.

Note that the focus is not on the specifics of your design, but rather on your customer's situation. What is it that annoys them? What would it be like if that went away? What would they have to do to get there?

Deliverables: Complete product concept description for each idea (includes items 1-3 above). To document your storyboards, we recommend using apps like [CamScanner](#) which make it easy to turn your pictures into clean pdfs.

Part 4. Get feedback

Task: Get feedback from **at least two tourists** on **each** product concept.

Notes: Complete this task by presenting tourists with the storyboards you've created -- so that they can be immersed (to the best of their ability) in the experience of using your product. Few people will have time to give you feedback on all of your storyboards. However, **always give people at least two distinct storyboards to comment on**. If you show them only one, all you will get is false praise. If you show them at least two ideas side by side, they are much more likely to give you candid feedback.

Your storyboards should speak for themselves. You can tell them that you are testing an idea for a product to improve the experience of being a tourist on Harvard campus. But if you have to tell them much more than that, then your storyboard has failed (and your teaching staff will probably not get it, either, so you will get little credit for it). If your storyboard is hard to follow, you'll have to revise it. (Hint: test your storyboards on your friends first and once you know that they tell a clear story, go after the tourists).

You can split this work, but we strongly recommend that each member of the team solicits some of the feedback.

Deliverables: For each storyboard, provide a paragraph-long *summary* of feedback. **The summary should capture what people actually said (that's your evidence)** plus your conclusions about the strengths and weaknesses of each concept. Indicate one major change you would make to the concept given the feedback you received.

Submit (as a team)

Submit your work as a single PDF document. **If pasting images, make sure to reduce file sizes so that the overall document size is reasonable.**

Your submission should include:

- ☐ A (revised) project brief (Part 1)
- ☐ A photograph of at least 5xN raw ideas you generated during the ideation step. (Part 2)
- ☐ 2xN product concepts. For each you need to have a product name, storyboard, one-paragraph description, and synthesis of feedback. (Parts 3 and 4)

For Studio

For studio, please bring your storyboards to class. Each team will present two of their product concepts for critique. Refer to Lecture 4 for how best to present your designs and how to offer/receive useful critique.

Evaluation Criteria & Grading Rubric

Guiding questions	Adequacy	Proficiency	Mastery
Process-related criteria In order not to stifle your creativity, in most assignments the grading will focus on whether or not you made a good use of the design <i>process</i> .			
Project brief. Did you submit a (revised) project brief? (5 pts)	Yes, but the brief is incomplete (3 pts)	Yes!	
Ideation. Did you submit a photo of the ideas you generated as a team? (15 pts)	Yes, but it is not clear that at least 5xN ideas have been generated. (7 pts)	Yes!	--
Product concepts. Have you submitted 2xN product concepts? Are all the pieces in place (product name, storyboard, one-paragraph description)? (10 pts)	Fewer than 2xN product concepts have been submitted or some of the concepts are missing some of the pieces (5 pts)	Yes!	--
Storyboards. Are the storyboards legible? Do the storyboards clearly show: 1. A problem, opportunity or a frustration? 2. How the product addresses it? 3. A successful outcome? (20 pts)	Fewer than 2xN storyboards submitted; or many storyboards are very hard to follow or are missing important parts of the narrative. (5 pts)	Storyboards are reasonably legible and most include all the important parts of the narrative. (10 pts)	Storyboards easy to read, include all the important parts of the narrative, and overall tell clear and compelling stories that clearly illustrate each of the product concepts.
Feedback. Did you get useful feedback for each of the product concepts? Did you report both what people said and what it means? (15 pts)	Some product concepts come with feedback summaries, or most summaries fail to report what people said or the team's conclusions. (5 pts)	All product concepts come with feedback summaries showing both what people said and the team's conclusions. (10 pts)	All product concepts come with feedback summaries showing both what people said and the team's conclusions. The insights gained go beyond the superficial and point to valuable and non-trivial revisions.
Presentation. Is your report clearly organized and succinct? Is the file size reasonable? (10 pts)	Reasonably organized document, but could be clearer and/or more succinct. (5 pts)	Clearly organized and succinct document.	--
Outcome-related criteria			
Diversity. Are the product concepts diverse? (It's OK to have pairs or related ideas)	Product concepts are mostly variations on the same theme	Product concepts represent several substantially	--

(10 pts)	(5 pts)	different approaches	
Creativity. Are your product concepts novel, surprising and appropriate? (15 pts)	Most product concepts are similar to existing products (i.e., not novel), are similar to ideas submitted by several other teams (thus not surprising), do not really address the problem (i.e., not appropriate) or clearly not practical in the next decade (i.e., not appropriate) (5 pts)	Most product concepts are novel, reasonably non-obvious, appropriately address the problem and could possibly be realized in the next decade. (10 pts)	Most product concepts are novel, reasonably non-obvious, appropriately address the problem and could possibly be realized in the next decade. Some ideas, however, are really surprising (i.e., other teams didn't come up with anything like this and one wouldn't expect many people to come up with anything similar)
Exceptional work. (up to 10 extra pts)	Design can excel in many ways, and often the best designs are unanticipated. To acknowledge and encourage this, each assignment offers a few points for this truly exceptional work. Great design is also rare. So these points can only be achieved by at most 10% of submissions.		

Collaboration Policy

Do the work as a team. You may solicit *feedback* on the ideas you have generated from people outside CS 179 (don't ask other CS 179 students for feedback because that would influence their idea generation process).

Regrade Policy

It is very important to us that all assignments are properly graded. If you believe there is an error in your assignment grading, please submit an explanation in writing to your studio leader (and Cc the instructor) within 7 days of receiving the grade. No regrade requests will be accepted orally, and no regrade requests will be accepted more than 7 days after receipt of the assignment.

Photo credit:

<http://web.mit.edu/2.744/www/Project/Assignments/conceptSketches/design-o-mite/storyboard/mitt-story.html>