ESD.172J -- TERM PROJECT THROUGH MIDTERMS
Prize space analysis outline and key resources summary
due by 19 October (one per team)
FINAL prize space analysis & midterm presentations
due by 28 October 2008 (one per team)

Your elevator pitch provides the lens through which you will be attacking the broad topic of energy storage. Now, you need to develop a thorough understanding of the space you've selected and the opportunities it offers for a prize. Your midterm evaluation will focus on how well you demonstrate a deep knowledge of your niche and how the X PRIZE model can be used to realize your goals.

For this assignment, you are to conduct an analysis of the prize space you have selected, examining:

- Value chain in the current marketplace and your projected marketplace
- Market failures and market size, investors, incentives
- Current technology solutions in the space and predicted trends, including estimated key figures of merit (e.g. at what price, energy density, power density, etc., does this innovation seem likely to take hold?)
- Survey of user needs
- Alternative applications for a successful breakthrough

For your final draft, you will need to:

1. Discuss your draft with your IDEO mentors and incorporate their feedback.
2. Identify (with appropriate justification) 3 elements highlighted by the analysis that you believe are ideal targets for future X PRIZEs (i.e. what possible level of performance, proof of concept, or demonstration at scale would cause a paradigm shift in this area?) Make use of your key readings, mentors, and other resources to back up your claims with more than assumptions.
3. For your **midterm presentation on 28 October**, each team will be given 15 minutes to present. Content should focus on describing the problem you are trying to solve, and highlighting the key features of your analysis above. Finally, you should present 4-6 broad concepts for future X PRIZEs that address one or more of your proposed targets. (e.g. if you need to demonstrate high energy density, a prize concept might challenge teams to run a car for maximum distance) At this point, I'm not looking for detailed proposals and optimized parameters, just broad brush strokes of the prize in 1-2 phrases or sentences.

For illustrative purposes, below is a rough example (without the supporting data you will want to bring to bear for your work):

Problem Statement:	Access to space is prohibitively expensive
Key Targets:	Only governments build rockets.
	No vehicle exists primarily for space tourism.
	Lower risk reentry technology is needed.
X PRIZE Concepts:	Private orbital human spaceflight.
	Private suborbital human spaceflight.
	Private unmanned rocket to orbit.
	Trans-Atlantic suborbital cargo delivery.
	Half price Space Shuttle Main Engines.
	"Egg drop" from orbital altitude.

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