**List of things that cost points in Viable Alternate Design Reports—teams should work on these to maximize points on FINAL DESIGN REPORT/POWERPOINT:**

1. **Follow the grade rubric exactly**—anything out of order, such as Design Statement, will lose a point.
   1. Read the instructions carefully—some teams had sections for Requirements—but did not discuss how they expect to verify and/or how these requirements meet P&B Criteria. Make sure your report carefully and fully explains.
2. **CITATIONS: in-text and in References**

* Many individuals incorrectly had in-text citations for sources, particularly websources. IF YOU ARE NOT SURE, LOOK IT UP—do not assume that what you insert will be adequate/correct. MAKE SURE. For example, a websource should be cited as: (Name of website, e.g., Amazon, date of retrieval).
* All websites still need correct citation format both in-text and in References. Try to avoid long URLs—makes sure you list the name of the Website as author if no actual author. Make sure you have the date of retrieval—especially if no publication date.
* GO TO: <https://owl.purdue.edu/owl/research_and_citation/apa6_style/apa_formatting_and_style_guide/general_format.html>

And look-up correct formatting—don’t assume a long URL will make-up for not having correct format.

* Eliminate BLUE HYPERTEXT and Underline in any URLs you use. EVERYTHING IS BLACK AND NOTHING UNDERLINED.

1. **Reliability of sources**. While cost of materials may justify using a common commercial website such as Amazon or AliBaba, the majority of your sources need to be reliable and scholarly. If they aren’t you will lose points—if the sources you use are questionable, it makes your design questionable. **I am not making you do a Research Table for all sources, but I will look at sources and if questionable, teams will lose points**. DO NOT USE A SOURCE YOU CANNOT DEMONSTRATE IS RELIABLE. DO NOT USE PATENTS—someone else owns them. Look at them for ideas only—or look for scholarly articles that reference the person or the design—new designs are often written about in articles.
2. **PUT NAME NEXT TO EVERY SECTION YOU WROTE**: many teams only identify authors during design description. I need to see **your name next to every section** **you individually or with another worked on**: (John Smith and Mary Stone). One pair put their names next to the sections in the TOC—that works too.

**IF I CAN’T TELL WHO WROTE THE SECTION**—everyone will lose the points if there is a problem.

1. **SCHEMATICS:** Two problems repeatedly appeared in Viable Alternate Design Reports: 1) schematics were tiny, squeezed into a corner of a page and surrounded by text. If it is not readable, it is no good. **Schematics should be at least ½ a page and centered so the diagram is clear and easy to read. Have a legend. Label main parts clearly.**

**2) Many of the drawings submitted as schematics were NOT really schematics and you will be penalized both by me and your CEO for not having an actual schematic(s) of your design. Some designs may need more than one schematic to show the device from different angles.**

* **You need to show clearly the input and movement of energy and materials in and out of your design—**
* **you need to have arrows showing this movement in different colors.**
* **You need to clearly label key parts.**
* **If you are, e.g., converting electrical energy to mechanical energy—you need to show this.**
* **Many of you failed to even have a power source, e.g., electric plug, or if using a battery, failed to show the power moving in and out of key components of your design.**
* **If you are putting food in/out or an arm in/out you need to show where this would go and how it would work, e.g. is it a hinged door on springs?**

**CHECK WITH YOUR CEO—but many of the Schematics seemed to me not adequate as drawn—and you must make them large enough to easily read—again ½ page. I have put up some simple samples—many schematics seem to me to need some work—again, check with CEO.**

1. **COST ANALYSIS: Most pairs did not do a particularly good job with this—so make sure you have a list of all parts/materials and costs and a TOTAL COST.**

**Most teams had some research on specific parts, e.g., remote control, but failed to determine total cost to manufacture. YOU NEED A TOTAL cost of manufacture—Have a chart that summarizes all relevant costs and a total.**

1. WRITING-PROOFREAD CAREFULLY—and read aloud so you can catch errors. I am finding many basic writing errors—split infinitives—modifiers in between verb, e.g., “he was almost completed”; spelling errors—it’s PAHL, not PAUL; sentence constructions—eliminate slang/keep tone formal, don’t have several sentences that start exactly the same way—think of our lesson self-editing for clear and concise writing—many overly wordy and repetitive sentences. Keep verb tenses consistent. As a rule, use the present tense rather than past tense; use the simplest verb tense, e.g., he went – instead of he had gone. USE ACTIVE VOICE—the boy hit the ball, not the ball was hit by the boy.
2. Make sure you clearly and fully explain every element of your design idea and make sure you: a) reference sources b) reference how design meets both Evaluation Criteria (all or some) and c) how your design meets Requirements. All of these should be specifically referenced in discussion.
3. EMAIL ME OR UCA IF UNSURE/QUESTIONS, or if you want some feedback on a section before you finalize.