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## Truck Bed Ramp Design Project

With your project team you will design the next truck bed ramp system to aid consumers in loading heavy equipment into the bed of a pickup truck.

With your expert groups, you collected information on the current state of the market as well as applicable codes and standards and ergonomics that may come in to play. You also made a list of customer requirements that will be necessary to design a successful product.

From here, we will need to complete the design process:

1. Brainstorm possible concepts

Meet with your team and come up with as many ideas as possible

2. Narrow it down to a single concept. Evaluate the concepts against the customer requirements you listed. Which concept has the most potential?

At this stage, schedule a 30 min meeting with me to report your top concepts and the chosen one. Please prepare a few Powerpoint slides to illustrate your ideas.

3. Start Designing. Divide the work up and look at what calculations need to be performed. I will ask that each teammate take at least 1 component.
4. Document your design with the following sections:

Introduction and Problem Statement: Introduce the idea and the customer requirements

Background: Present the information from your expert groups that is most relevant to your project. Make sure you cover all 4 expert groups.

Proposed Concept: Present your top ideas and tell the audience why you chose the final design.

Calculations: Provide the details of your calculations.

Results and discussion: Discuss the final design and any recommendations you have. Would you recommend marketing this design? Do you think it would be profitable? Could it be patented? Would people use it? Etc.

Conclusions: Summarize the key findings