

Project Deliverable D: **Conceptual Design**

GNG 1103 – Engineering Design

Faculty of Engineering – University of Ottawa

Objective:

Develop a set of conceptual designs for your problem statement, based on benchmarking and the list of prioritized design criteria you have developed. Analyze and evaluate these concepts and choose those that you will continue to develop. Justify your reasoning as you go.

Instructions:

Based on your team's problem statement, benchmarking and the list of prioritized design criteria, each team member will generate at least three concepts for each subsystem required (identify who created what in the deliverable). Team members will then reconvene as a team and discuss these concepts in order to categorize/condense/combine/refine/reconsider them. As a team, the goal is to produce completely new or modified concepts for each subsystem, which can then be combined into three fully functional solutions. These global concepts will then be analyzed and evaluated against your design criteria using a selection matrix similar to the one used in class for comparing the solutions which resulted from the benchmarking process. From this analysis and evaluation, one global concept will be chosen and identified for further development. Each concept should be well documented using sketches and descriptions. Ensure that you justify your reasoning at each stage of the process.

Your chosen concept will continue to be used in future project deliverables including your project plan and cost estimates, as well as prototyping. It is possible that you realize along the way that your chosen concept is not ideal or requires modification. Therefore, it is critical at this stage of the process that you properly document your ideas in case you need to change or modify your design later.

Submission:

Each team (**only one person from each team**) must submit a PDF copy of this deliverable by uploading the file as an attachment into BrightSpace.

Due Date:

See BrightSpace.