The final report and presentation are due Week 14 (08-12 April). It is worth 15% of your overall grade. These items must be submitted to Canvas in PDF form. The purpose of this report and presentation is to cover the team’s complete final project. This should include restatement and discussion of the problem, identification of major design challenges in the project, customer needs, engineering specifications, functions, concept generation, detailed design, alternatives, structured evaluation, discussion of competition results and future design improvements. Below are the specific requirements for the report and presentation.

1. **Final video presentation.** Your team will generate a 10 minute (maximum length) video that will be shown at the beginning of your studio section to summarize your project effort. Before the video is presented, one team member must give a short (maximum) 1 minute briefing / elevator talk introducing the video and the summarizing the overall effort. This video should include all of the items described above. The video should be uploaded to YouTube and details regarding specifications are provided at the end of this document. The YouTube link should be submitted to the associated Canvas assignment submission page and also provided on the cover page of the final report. Your presentation will be reviewed and rated by the class, instructor and TA according to: (1) technical content and (2) artistic and formatting quality.

2. **Final report.** All reports should be uploaded to Canvas before the deadline. This report should containing the following:
   - **Cover Page:** See book for example cover page. Include YouTube link for the final video.
   - **Abstract:** One-paragraph summary of the report including key findings and results.
   - **Introduction:** Restatement of the problem, goal of the study and inherent design challenges associated with achieving this goal.
   - **Problem Understanding:** Review important customer needs, engineering specifications to address these needs, tradeoffs and synergies, critical functions and concept generation. This must include the HOQ, specification sheet, function tree and morphological chart.
   - **Design Overview:** Present and describe the assembled, integrated system. Present and describe the subsystems of the device. Discuss relevant engineering specifications of the final system.
   - **Concept Alternatives:** Present and describe alternative concepts that were developed.
   - **Concept Evaluation:** Present and describe the concept evaluation results. Make it clear why you chose your selected system, instead of the alternatives.
   - **Competition Results:** Discuss competition results (studio and final competitions, design review)
   - **Conclusions:** Summary with key results, potential design improvements and final thoughts.
   - **Appendix:** All figures and tables put here with proper captions and in proper sequential order as cited. Figure captions should be provided for all figures and go below the figure.
Table captions for any tables are to be placed above the table. Figures and tables must be cited in sequential order in the text and all figures/tables must be cited.

Consider dividing your report into the sections listed in the outline above for clarity. The report should include a maximum of 8 pages of text. The cover page, abstract and appendix do not contribute to this 8-page limit. Before you prepare your report, you should first read the textbook’s guidelines for using drawings and preparing reports (Chapters 9 and 10). The report should use 12-point font, 1-inch margins and single-spaced (unless otherwise specified). Use page numbers at the bottom of each page. See the textbook for further guidelines on proper formatting and writing style for reports and technical writing.

3. **Video Specifications.** Your final presentation will be a video that will be reviewed and rated by the class, as well as the instructor and TA. The video must adhere to the ME 2110 presentation requirements in terms of content and style. Here are the specifications and instructions for generating and submitting the video:
   - All videos are to be posted on YouTube, and uploaded at the “Unlisted” privacy level. Once uploaded, you will provide the link to the video via e-mail to the studio instructor and the TA by the start of the studio session in which the video is due. No late videos will be accepted. You will also bring the link with you to your studio section so that you may play it for the entire studio. As you are uploading a video, it is highly recommended that you do not wait until the last minute to upload the video, as it will take some time for the video to upload. Also, you are responsible to verify that the link that you provide is a fully functioning link. Therefore, it is highly recommended that you validate the link (watch the entire video) before submitting the link.
   - The official length of the video will be the one shown in YouTube, so be sure to verify that your video does not exceed the length specifications. Please note that uploading to YouTube often adds 1 or 2 seconds to the video length. So do not make your video length exactly to specifications. Make sure to provide yourself with 5 seconds of cushion, or so. Videos having an official length of greater than the specified limit will not be viewed.
   - All videos will be watched during the studio section and graded according to: (1) technical content and (2) artistic and formatting quality. All students will participate in the grading of the videos.
   - All videos must provide team member names as well as team number and other identifying information such that they can easily be graded.