[ELEC 1100]
Project Report Format and Writing Guidelines

- This report accounts for 5% of your overall grade.

The report is a documentation of the design you used for the challenge and a summary of your work. "Presentation" and "use of English" will be considered in the marking scheme.

****Submission Deadline: upload to your Canvas LA1/LA2/LA3 page before 11:50am (in the morning) on May 22 (Fri).**

- 50% penalty mark will be given to a late submission within 3 hours.
- Zero mark will be given to more than 3-hour late submission.

All sections in your report should be based on your own understanding and experiences with this robotic course. Write in your own words to describe what YOU have achieved.

Copy from each other may result in zero mark in your project (demo & report) scores.

Your report must NOT exceed 4 pages, but no less than 1,000 words. Follow the guidelines below when writing your report:

- **Size and Color**
  Use A4 paper size in black and white (Highlight color acceptable for table and diagram).
  Page Margin
  Set your margins at 1" (2.54cm) all around.
- **Fonts**
  Write in English, Times New Roman is preferable (Arial is acceptable), use size 12 font (size 14 acceptable for titles and subtitles).
- **Paragraph Space**
  The body text should be set to single line spacing (1.5 line spacing acceptable for titles, subtitles and space between text and image).

  Here is a summary of what you need to include in your report:
  - **Introduction (1/2 point)**
    Include a brief description of what you did. Someone not familiar with ELEC1100 project should be able to understand what you have done after reading your introduction. You may include a screenshot of your Tinkercad circuit.
  - **Design (1 point)**
    Here includes the bumper sensor into your logic design to fully describe what you have built. Include the followings:
    - Truth tables; also describe your theory behind your truth table (how the motor direction signals and speed signals would be changed according to the changes of your sensors combination);
    - Logic-flow charts (refer to Lecture 15, pages 20-21); you may include the functions you used for coding or part of the code to explain more about your logic flow;
    - Describe the PWM values you choose to use; explain if any additional coding section used to change speed at/after certain task point automatically, or explain why not having one.

- **Results (1 point)**
  Here you will do a self-evaluation of your performance at previous labs & project to recognize the faults, weaknesses and strengths of yourself.
  - Which part you performed very well? Which part you performed poorly? (circuits building, logic design, Arduino coding, debugging, writing lab summary, etc.)
  - What do you think works well in your project design? What works poorly? What does not work?
  - Did anything unexpected happen during project period? How did you fix it?

  Also describe as you look back at the whole process.
  - What would you do now differently if you could start over?
  - How could you improve your design if you had more time?
  - Are there any bad decisions you have made during the project period?
- **Conclusion (1/2 point)**
  Draw a conclusion on your final project and your experience with this robotic course.
- **Writing Style (1 point)**
  - ✓ The information should be structured from "Introduction" to "Conclusion" in clear sections.
  - ✓ The topics in each section should be fully described/explained with technical details and articulate statement.
  - ✓ Language (spelling, grammar) should be clear and correct.
  - ✓ Pages and words count should meeting the requirement.
  - ✓ Presentation (paper size, page margins, fonts, use of space, etc.) should follow this given format.
- **Appendix (1 point)**
  Provide your full Arduino source code. Copy the content in your Tinkercad coding text and directly paste into your report (doc/docx) appendix. This is for running a plagiarism check. **Any screenshot/photo of the codes are NOT acceptable.**

Note: "must NOT exceed 4 pages, but no less than 1,000 words" is referring to the main-body (from "Introduction" to "Conclusion") of your report. The "Appendix" of your Arduino source code will not be counted as main-body of the report.