To: ENGR 132 Project Teams

From: Rowan Harper; Lead Control Systems Engineer

Date: April 22, 2025
Re: Final deliverables



We appreciate all the hard work you have done to develop your algorithm. As this project moves toward its conclusion, it is important for you to understand our expectations for your submission of a final technical document. Here are the guidelines for what your final technical brief should include:

- A clear description in plain English (not code or pseudocode) of your algorithm for parameter identification. I understand that you have completed the project in MATLAB, but please write this description using platform-neutral language (our engineers may eventually code your procedure using another platform). Do not reference specific MATLAB commands or processes; instead write the description in a generic way.
- A concise description of your parameter identification results. Include a figure of your results for each test type and a table with each test type's parameters. Be sure that the table and figure are formatted professionally and are suitable for communication to a technical audience.
- A concise reporting of the results of your performance analysis. Include a figure of your results and make sure the figure is formatted professionally.
- A 1-3 paragraph summary that answers the core questions we originally posed to you:
 - How can you characterize the error in this process? Please comment on the quality of the experiments themselves and on your parameter identification algorithm. Use evidence to support your case, including specific data from your analysis and outside references as appropriate.
 - What can CruiseAuto honestly tell our auto manufacturing partner about the performance of the adaptive cruise control system?
 - What next steps would you propose for your work if you had more time to complete your analysis?
- If you have used outside references, please list them at the end of the technical brief in APA format (7th edition).

The technical brief <u>must not</u> exceed 2 pages of text, although references, figures, and tables may go on to the third page. Under no circumstances are you allowed to exceed three total pages. You should compose your technical brief according to the guidance provided on the technical brief template provided by your instructor.

Thank you as always, and we look forward to seeing your final technical brief.

Rowan Harper

CruiseAuto, Lead Control Systems Engineer