

Final Report Guidelines

Due: Last day of finals at 5:00 pm

Now that the academic year is ending, each of your teams needs to

- report on your spring quarter achievements,
- document your systems (the hardware, software, algorithms, test results, and operating instructions) so that others can carry on your work, using your documentation and the final report as a starting point.

The goal of the *final report* is to give an *efficient* report on your team's spring accomplishments, the status of your system at the end of the quarter, and an important list of remaining issues that should be completed by others. The *documentation* should provide an organized list of the *artifacts* produced by your team in the process of developing your system. The documentation should include any discussion needed by others, who may not be able to talk with you at the time when they take up your project.

Final Report format. At a minimum, your report should include the following:

- **Recap of project goals.** This part of the report should be just a short summary of your team's main project focus, with a special highlight to any changes in focus that have developed over the course of the quarter.
- **Final Status of the project.** This should include a description of
 - What software-hardware prototypes and simulation capabilities have been developed, and what system components are still incomplete? Photos of hardware, and "snapshots" of simulation capabilities are useful ways to document things.
 - Summary of any important operational or testing data. The main goal here is to show the current operational status of your team's device, with the data showing the operational capabilities of your system. Hence, data can be anecdotal such as photos of your device in operations, simulation snapshots, or animations.
- **Open issues.** What are the critical things which must be accomplished in your project by future participants so that your team's system can realize its original goals? Are there still open questions to consider in the area of electromechanical design and implementation? Are there key algorithms or pieces of operational software that should/must be completed? Are there key tests that should be carried out?

Your team need only prepare one such document for the entire team. Please leave a copy of this report in your team's GitLab directory, and email a copy to me (jwb@robotics.caltech.edu).

Final Documentation format. At a minimum, your documentation should include the following:

- **Summary of the artefacts that make up the documentation.** Describe all of the key artefacts that have been produced, and organize them into

categories (such as CAD models, simulation files, control code, parts lists, test data, etc.). Don't forget important earlier design artefacts that help people to understand your design process.

- **A description of the artefacts.**
 - Describe the artefacts, how they can be accessed, and how they can be understood (if necessary).
 - Also describe any important relationships between the artefacts.
- **Operating guidelines.** As appropriate, leave behind any important notes to consider when using the hardware or software. Think of this as a “user guide.” This can also include notes about compiling packages, or a prescription of the sequence to start up the RC Car. The key idea is to leave enough detail so that future users of your artefacts feel informed about the utility of the artefact, and can easily use it without encountering difficulties or dangerous conditions.
- **Open issues with any of the artefacts.** Are some of the artefacts incomplete, or could they be improved? If so, leave some documentation about suggested improvements or completions.

Your team need only prepare one such document for the entire team. Please leave a copy of this report in your team's GitLab directory, and email a copy to me (jwb@robotics.caltech.edu).