

Instructions for Final Documentation

Overview and Goal

At the end of the semester, the collection of your reports should comprise a detailed, technical documentation of the development of an assistive technology, with and for your assigned client. It should be written for an audience with a basic knowledge of engineering and should allow a reader who is unfamiliar with your project to replicate your work. The report is submitted in four installments, due throughout the semester.

- Report 1: Client profile and problem definition
- Report 2: First prototype and user testing cycle
- Report 3: Second prototype and user testing cycle
- **Final documentation [CURRENT]**

Format and Style Guidelines

- Your submission should be titled “Team [Client Name] - Final Documentation”
- All team members should be listed as authors (and must contribute to the writing!).
- You should use 1.5 line spacing, Arial font size 11, and adhere to the length guidelines below.
- All tables and figures should include appropriate captions.

Submission Instructions

One member of the team should upload the final version to the class website as a pdf file named “Team [Client Name] - Final Documentation.pdf”. Reports must be submitted online by the published deadline. **Late submissions will be penalized 20% per day.**

Final Prototype and Documentation

In most cases, we anticipate that this last report will be a *very* brief document consisting primarily of:

- A URL pointing to your YouTube video, relating the story of your client, their activity, and your solution;
- URLs pointing to the final, detailed documentation of your project, as described below;
- A brief description of the final documentation links and any instructions needed to access the files via the URLs provided; (Think of this as a READ ME note to guide users through the documentation.)
- A table or brief description of your final success metrics

Of course, it will accompany a working prototype, which should be complete and ready for delivery to your client at the Final Project Showcase on the last day of classes.

Under some circumstances, an alternate report requirement may be required. Please speak with your mentor as soon as possible if:

1. Your team wants to retain control of the intellectual property and therefore does not wish to post the project documentation publically;
2. Your team is unable to deliver a working prototype at the Final Project Showcase on the last day of classes.

On the Monday prior to the final project showcase, each team should come to class prepared for a **mandatory mentor check-in** to review a draft of their final project documentation.

In general, the final documentation for your project should be sufficient for someone with modest technical abilities to continue working on the project. Using the final documentation, could someone:

- Make repairs or modifications to your final prototype?
- Build a duplicate device?
- Upload the software to a new device?
- Adapt the software to run on a different platform?

Your final documentation - including the how-to steps and instructions to recreate your prototype - should include all of the following that are relevant to your particular project:

- Bill of materials with links
- Tools and machines used/required
- Design files
- Schematics for any hardware and/or circuits
- Source code
- List of libraries required with links
- README file
 - explaining the assembly for mechanical projects and the installation steps for software
 - including advice for troubleshooting

The how-to instructions, bill of materials and design files should be posted on one of the following sites or a similar site approved by your mentor.

- Instructables (instructables.com)
- Hackaday (hackaday.io)
- Hackster (hackster.io)
- Make (makezine.com)
- Maker Share (www.makershare.com)
- TOM Global (tomglobal.org)
- GitHub (for projects that are exclusively software)

Any source code, schematics, design files (including STL, DXF, and SLDPRPT or similar) should be uploaded to a public repository in GitHub. Your how-to instructions on any of these other sites should link to this GitHub repository where appropriate.

Final Documentation Grading

Prototype 40%

- Has the team produced a working prototype ready for delivery to the client?

Documentation 40%

- Do the links provided include complete documentation with detail sufficient to build a duplicate device?

User testing, 20%

- Was the prototype evaluated using appropriate quantitative or semi-quantitative methods? Does the report include a table or brief description of final success metrics?