

Project Final Portfolio Specs

Written documentation should follow all the specifications for written documentation as laid out in the [general lab specs](#). In addition, the report should address these project-specific specifications.

Proficiency

Technical Information

- Bill of materials including all relevant components with quantities, part numbers, and prices.
- Microcontroller design overview: description of what the MCU is doing.
- FPGA design overview: what is the FPGA doing along with main design features.

Written Documentation

- Names and short bios of team members with link to personal website or LinkedIn profile.
- Abstract which briefly describes the main purpose and operation of the system.
- New hardware listed in section with description
- Results: What are the main results of your project.
- References: Citation (and hyperlinks where relevant) to any outside resources that were referenced in the design of the project.
- Acknowledgements
- All project code (software and HDL) included in Git repository

Writing and Organization

- Website is well organized with clear separation of relevant information.
- No more than a few minor spelling or grammar issues.
- No missing placeholders (e.g., XX) or dead hyperlinks.

Excellence

Technical Documentation

- Schematics are neatly drawn with a CAD program (e.g., KiCad). All necessary labels present (pins names & numbers, part numbers, etc.)
- Block diagram is neat and completely specified (e.g., all communication protocols labeled, bus widths indicated, etc.)

Written Documentation

- New hardware described with notes about the features to be implemented and how they go beyond the previous material covered in the course.
- Results section clearly and **quantitatively** outlines the key performance aspects of the design with commentary to explain the design decisions.
- References are formatted with a clean and consistent format.
- All project code is accompanied by comments throughout
- Git repository contains a README.md file to describe the main elements of the project and where they are found.

Writing and Organization

- Excellent spelling and grammar throughout

Multimedia Documentation

- Short video showcasing a demonstration of the project
- Photos documenting final design

Optional

- Photos documenting the build process