Table 1: Revision History

Date	Developer(s)	Change
Sept 25 2022	Edwin Do	Initial commit with outline
...	...	...

Development Plan
Measuring Microstructure Changes During Thermal Treatment

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The evolution of the material's microstructure during thermal treatment can be followed by measuring changes to the electrical conductivity of the material. The electrical conductivity is measured using a four-point probe. A current source provides a small current that passes through the material and a nano-voltmeter measures the voltage. Using the current and voltage values, the resistance can be calculated. This can in turn be converted to conductivity if the dimensions of the sample are known. The goal of this project is to develop a Window's based App which can be used to measure the conductivity. A current source and a nano- voltmeter will be provided. The App needs to connect to these devices and calculate the conductivity. The user should be able to control the acquisition rate as well as output the data (plots and text files). The equipment should operate under constant current and delta (current pulse) control.

1 Team Meeting Plan

2 Team Communication Plan

3 Team Member Roles

4 Workflow Plan

- How will you be using git, including branches, pull request, etc.?

- How will you be managing issues, including template issues, issue classificaiton, etc.?

5 Proof of Concept Demonstration Plan

What is the main risk, or risks, for the success of your project? What will you demonstrate during your proof of concept demonstration to convince yourself that you will be able to overcome this risk?

6 Technology

- Specific programming language
- Specific linter tool (if appropriate)
- Specific unit testing framework
- Investigation of code coverage measuring tools
- Specific plans for Continuous Integration (CI), or an explanation that CI is not being done
- Specific performance measuring tools (like Valgrind), if appropriate
- Libraries you will likely be using?
- Tools you will likely be using?

7 Coding Standard

8 Project Scheduling

[How will the project be scheduled? —SS]