**Instructions**

1. Rename this template file to be **M4\_TechnicalBrief\_*sss\_tt*.docx**.
2. As a team, write the first draft of your technical brief by filling in the sections of the template below.
3. Write your technical brief to President Frank O. Simpson of FOS, Inc.
4. Your technical brief must follow the format shown here! Failure to follow this format will result in lost points!
5. Margins must be set at 1 inch and font must be Arial 11 point.
6. Your technical brief must be no longer than 2 pages, although graphs and/or tables showing results may be included on a 3rd page.
7. Delete all red text from this template before submitting!

***Template starts here …***

To:

From:

RE:

Date:

**Introduction**

1. In your own words, describe the problem posed by FOS in 2-3 sentences. This should include your team’s consensus on what FOS needs in terms of the deliverable, its function (what the deliverable must be able to do), the criteria for success (indicators used to determine performance), and any constraints (what was provided to guide the development of your solution).

<insert your text here>

1. Provide an overarching description of your algorithm in 1-2 sentences. This description should emphasize the key features included in the algorithm. Be specific.

<insert your text here>

1. Summarize two improvements your team made to your parameter identification algorithm throughout the entire project.

Describe briefly:

* Which parameter(s) did your improvements address and why
* Robustness of your code; its ability to handle different variations of data
* How did each improvement impact the accuracy of the parameter identification algorithm?
  + Use evidence-based rationales for each proposed improvement (e.g. a high/low SSEmod is bad because…).

* + What metrics (e.g. SSEmod) did you use to determine if your proposed improvements decreased the error?
    - Explicitly refer to results from data analyses (any plots SSEmod, regression, parameter values, mean of tau, std dev of tau).

<insert your text here>

**Procedure**

**Write your** parameter identification algorithm in pseudocode. Clearly and concisely describe identification of yL, yH, ts, and tau.

Avoid references to MATLAB.

<insert your text here>

**Results**

**Present the results** of applying the parameter identification algorithm to the specified datasets in milestones 2, 3 & 4 clearly and concisely. Each figure and/or table of results must be discussed in the text (e.g. Figure 1 shows…). Units and decimal places for values presented in figures, tables, and text should be managed appropriately.

<insert your text here>

**Conclusion**

In no more than 2 paragraphs, address the two questions of primary interest to FOS:

* How can you characterize the error in this process? An error analysis that characterizes the accuracy of your approach to determining time constant and other performance characteristics of the system.
* What can FOS honestly say about their thermocouples in terms of their performance, pricing, and manufacturing consistency? Refer to the regression analysis (plot & values) in M3.

<insert your text here>

**References**

If you have any references, list them here in format that you use consistently throughout the document.

<insert your text here>

***All text content above must be on pages 1-2.***

Figure and tables may go on to page 3.

Consider figures and tables to completely and concisely describe your decisions, results, and interpretation of results. All results should be formatted for technical presentation. Figures and tables should be numbered in their title (Figure # and Table #). Figure and tables should be referred to in the text by number (e.g. Figure 1 shows… Table 1 shows…). Units and decimal places for values presented in figures and tables must be managed appropriately.

<insert your figures and tables here>

***Template ends here.***