Overall

* Any reference to other sections should be Chapter (or this should be decided on)
* Roman numerals for Appendix headings?

Abstract

* May warrant a rewrite

Introduction

* Introduces the problem pretty well in about 2 pages.
* I think it does a good job of discussing the problem without getting into how to fix it
* Maybe a conclusion sentence? Something to transition

Literature Review

* Introduction
  + Just starts with a summary of bausch et al….
  + Need to decide whether we want to be able to just say [1] or actually put author names.
  + Needs a roadmap at end to describe what section there are, and the order.
  + **Summary:** add a roadmap
* Structures
  + Now we know we’re doing arm, need to frame it differently
  + Kinematic and Inverse Kinematic maybe should come before material (relates more to DOF than material)
  + Materials section definitely needs some love, only one source. It seems almost unnecessary because we never consider material again.
  + Same goes for the Traditional 3-Axis Printer Exploration. It doesn’t really advance our goal and the main meat is just thrown on the end.
  + The Drive train section is mostly just fluff. None of it is really considered. Also there is no mention of accuracy of the motors, only torque. I would argue that the step size is almost the most important part.
  + **Summary:** The sections described above need love and a teardown of what they really need to say.
* Extruder Design
  + Methods of 3d Printing needs an introduction
  + This is unimportant I guess but technically FDM is copyrighted and the generic term is FFF <https://en.wikipedia.org/wiki/Fused_filament_fabrication>
  + Methods needs a conclusion that explains what type we want to use and why
    - Especially because the next section just assumes FFF
  + Extruder Materials section needs to really be looked at, the intro introduces nothing. It also then goes on to introduce something with no citations?
  + A common thread is missing conclusions. Data is presented but there is no argument being pushed or why this data matters
  + **Summary**: Introductions and conclusions need to be added or majorly revised. Remember to always be moving forward the argument or explaining why things are important and not just presenting information
* 3D Scanning
  + No big notes I think in general there needs to be more conclusions, especially triangulation
* Toolpath planning
  + Only note is that there are more sources for the pathing algorithms, I’m too tired to find them right now though
* Conclusion
  + Now that we have more concrete plans maybe give more concrete answers

Methodology

* Extruder
  + Not much of an outline of what they plan to do. Just initial decisions. Needs more goals and roadmap of schedule.
* Structures
  + I think this section is pretty good. Maybe include more details now that we have a better idea of what we want
* 3d scanning
  + Should rename section
  + Software section severely outdated, should completely rewrite or update it
  + This section has no path forward either. It’s mostly just current state of decisions.
  + Needs roadmap of path going forward

Appendix

* Timeline
  + Maybe make a chart or something?
* Budget
  + We can streamline the budget now that we have more concrete plans
* Glossary
  + As people revise find more terms /shrug

Revisions according to skendall:

| **Chapter 3: Methodology**  Did they revise their methodology paper?  Did they address how they will analyze their data?  Did they address the limitations of their methodology? | 22/25 | Good improvements, but more work still needs to restructure this section to more clearly identify the research question(s) you are addressing as well as the data you will collect and analyze—for each phase, what will you test? How will you know if your design is ready for integration? How will you know if it’s successful? |
| --- | --- | --- |
| **Appendix: Timeline/Budget**  Did they address their timeline and budget?  Was it specific to their team?  Did the team include how they addressed mentor feedback? | 9/10 | Format your budget into one table with a single total. I agree with your mentor’s feedback and by narrowing your focus/application, you will be able to better address the question. |