

Monthly Report (Yamamoto Lab.)

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Research theme: **Haptic Feedback Controller with Palm Pressurization**

— Research Plan —

Term \ Month	2	3	4	5	6	7	8	9	10	11	12	1
Literature review												
Design PlayStation Controller												
Test PlayStation Controller												
Frequency Response Analysis												
Design Pilot Controller												
Test Pilot Controller												
Theoretical Analysis												
Analyze data and compare												
Write Thesis												

— Work Contents —

1 Introduction

This report is the continuation of the first two reports about the project "Haptic Feedback Controller with Palm Pressurization". The last report has left off with the idea of implementing a voltage follower and suggested to retake measurements to create a Bode diagram. Furthermore, it has been suggested to create an analytical model and analysis of the setup in order to run simulations to identify setup parameters such as the equivalent spring constant, gain values or motor parameters.

2 Discussion

3 Conclusion

4 Outlook

References

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- [Kuchenbecker et al., 2003] Kuchenbecker, K. J., Park, J. G., and Niemeyer, G. (2003). Characterizing the human wrist for improved haptic interaction. In *ASME 2003 International Mechanical Engineering Congress and Exposition*, pages 591–598. American Society of Mechanical Engineers.
- [Park et al., 2014] Park, J., Pažin, N., Friedman, J., Zatsiorsky, V. M., and Latash, M. L. (2014). Mechanical properties of the human hand digits: Age-related differences. *Clinical Biomechanics*, 29(2):129–137.
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