

## **SELF SERVICE KIOSK FOR COMMERCIAL LAUNDRY**

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Revision after the Thesis Defense on 14 July 2023

**STATEMENT BY THE AUTHOR**

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

  
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Student

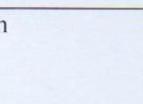
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## **ABSTRACT**

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In the era of Industry 4.0, a self-service kiosk has been developed to meet the demands of busy individuals seeking faster and simpler ways to complete their daily tasks. This system is built around the Raspberry Pi 4 as its core, utilizing LAN cable connectivity. Through a Python-based user interface called Pysimple GUI, customers can easily place their orders, which are then recorded in an SQLite 3 database. The implementation of this self-service kiosk not only reduces labor costs and improves financial efficiency for the owner but also addresses the inconveniences associated with traditional public washing machines in urban areas, such as complicated payment methods and the requirement for customers to provide their own detergent. To streamline the laundry process, the system includes a built-in detergent option for customers and integrates the Gopay payment system via Midtrans as payment gateway for enhanced convenience.

Furthermore, this project involves rigorous testing of the durability, accuracy, and connection between the Raspberry Pi 4 and the washing machine, dryer, and detergent pump. The program will control the start-stop functionality of the machines based on programmed intervals. By providing a convenient, efficient, and modern solution for public laundry, the development of this system contributes to the advancement of Industry 4.0.

*Keywords: Public Laundry, Self-service kiosk, Pysimple GUI, Raspberry Pi 4, SQLite3, Database, API, Payment Gateway.*

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## **DEDICATION**

I dedicate this thesis work to all the engineers out there who are curious to learn and explore the creation of automatic self-laundry systems and are committed to enhancing the existing normal commercial laundry.

And I also dedicate this thesis work to my beloved country: Indonesia.



### **ACKNOWLEDGEMENTS**

First and foremost, I praise and gives my biggest thanks to God for giving me the fortitude, insight, and perseverance necessary to finish this thesis and I would like also to thank everyone who has supported and helped me along the way in my thesis journey.

I want to express my gratitude and special thanks for my parents and my older brother from the bottom of my heart for providing me with endless support up to this point, and also for always guiding me through every phase of my life.

I also want to gives a special word of thanks that goes out to Mr.Leonard Rusli as my thesis advisor for their unwavering support, wisdom, and tolerance throughout the entire research process. Your knowledge and suggestions have greatly benefited this work.

My sincere and deepest gratitude goes to Mr. Yohanes Fredhi, Nicolas Albert, Alvin Fulbert, and also Mr. Tedi Purwanto for giving me many ideas and helped me to understand how the system works.

Lastly, I would like to thank everyone who took part in my study. This study would not have been able to be conducted without their willingness to donate their time and experiences through ups and downs. I will always cherish and remember all the good memories that I pass through university life and I hope and wish the very best of luck for their future.

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