

**SELF SERVICE KIOSK FOR COMMERCIAL LAUNDRY**

By

Marshall Alford Sebastian Darmanto  
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SWISS GERMAN UNIVERSITY  
The Prominence Tower  
Jalan Jalur Sutera Barat No. 15, Alam Sutera  
Tangerang, Banten 15143 - Indonesia

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**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.

  
Marshall Alford Sebastian Darmanto

Student

18/06/2023  
Date

Approved by:

  
Leonard P. Rusli, B.Sc, M.Sc, Ph.D.

Thesis Advisor

24/07/2023  
Date

Dr. Maulahikmah Galinium, S.Kom, M.Sc

Dean

\_\_\_\_\_  
Date

## ABSTRACT

### SELF SERVICE KIOSK FOR COMMERCIAL LAUNDRY

By

Marshall Alford Sebastian Darmanto  
Leonard P. Rusli, B.Sc, M.Sc, Ph.D., Advisor

SWISS GERMAN UNIVERSITY

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.



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