COMP 6121 Introduction to IoT – The Project

1st Semester 2022-2023

Work Allocation Document

Project Title: The smart NFC door lock based on IOT

List of Team Members: DUAN YUAN, ZHENG DASHUN, KANG DI, ZHOU RUIZHE

Date: 2022-10-18

Projected Work Allocation

Name of team member: ZHENG DASHUN, Dawson

Works:

1. Construction and debugging of the hardware.
2. Implement IC card emulation function: We intend to integrate multiple UID chips, and share the NFC antenna with the ST25DV chip, the card switching is achieved by dialing the wheel to change the gear.
3. Drew the PCB board together with Retro to arrange the hardware distribution.
4. Assisted Retro Zhou in developing hardware functions.

Name of team member: DUAN YUAN, Hector
Works:
1. In charge of the back-end development, which uses JAVA, Kotlin language, Spring Boot framework, MySQL database. AT is used to command IOT devices for communication.
2. Also take the responsibility to Front-end website development, which uses the LayUI framework to develop a website to show some data or information we collected from the project.
3. In charge of design the whole system structure and write use cases to Vincent to examine the robustness of our system.

Name of team member: KANG DI, Vincent
Works:
1. Take the responsibility to combine the API and system call provided by Android system with the app Hector developed, to make sure the NFC function is good to use.
2. Make the test use case and apply all those cases into our project one by one, to make sure the robustness of our system both at the frontend and the backend side.

Name of team member: ZHOU RUIZHE, Retro

Works:

1. In charge of developing the Firmware development, to make sure the function to our hardware is good to use.
2. Draw the PCB board to arrange the distribution to the hardwares and stuff those BOM on the board.
3. Combine the whole system and make a few test use cases to examine the robustness of the system.