

JnJ's Clockwork

Software and Hardware Specification Sheet

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Declaration of Sole Ownership

Proposal

Abstract

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Illustrations

Introduction

Technical Problem

Scope of Report and Procedures Used

Purpose of Project/Objective

Problems Encountered

Unique Approaches

Body

Requirement Specifications

Hardware

The project utilizes the following hardware components:

- Raspberry Pi 3 B +
- Micro USB power adapter
- 8GB micro SD card for storage
- HTU21D-F Humidity/Temp Sensor (0x40)
- DRV2605 Haptic Motor Driver (0x5A)
- Display screen
- 3D printed materials for hardware enclosure
- PCB components for sensor connections
- Android smartphone

Software

The project utilizes the following software components:

- Smartphone capable of running Android API 21 or higher
- Up to date version of Android Studio
- up to date version of Raspbian OS for the Pi 3
- Mobile application created to work alongside hardware component
- Firebase communication for storing user information and desired information

Work Breakdown

Database

The database will be designed, created and upheld by Juan and Johnson.

Mobile Application

The android application will be developed and maintained by Juan and Johnson. Add ons and additional functionality will be incorporated with the help from Jordan.

Hardware

The hardware portion of this project will be a joint effort between each member of the group as there are many responsibilities in order for everything to function as intended. In terms of the hardware design and enclosure, it will be handled by Juan. The functionality of each sensor will be tested and operational mainly from Jordan with help from Johnson when required. Connections between sensors and the Raspberry Pi will be accomplished by Johnson. The Integration of components may require additional help from every member due to problems that may occur during development.

Background

Problem

Solution

Conclusion

Recommendations

Bibliography