

Modular Smart Home System

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Contents

1	Introduction	4
1.1	Our Goal	4
2	Executive Summary	5
3	Requirements	6
3.1	Hardware	6
3.2	Software	6
3.2.1	Microcontroller	6
3.2.2	Backend	6
3.2.3	Frontend	6
4	Concept	7
4.1	Networking Structure	7
4.1.1	MQTT	7
4.1.2	ESP NOW	7
5	ESP32	8
5.1	Project Structure	8
5.2	ESP NOW	8
6	Raspberry Pi	9
6.1	Raspberry to ESP Communication	9

6.2	Database	9
6.3	Web Server	9

Chapter 1

Introduction

1.1 Our Goal

The goal of this Project is to provide a open source all in one smart home solution that comes with a modular design and enables the user to easily modify and extend the system.

Chapter 2

Executive Summary

Chapter 3

Requirements

3.1 Hardware

3.2 Software

3.2.1 Microcontroller

3.2.2 Backend

3.2.3 Frontend

Chapter 4

Concept

4.1 Networking Structure

4.1.1 MQTT

4.1.2 ESP NOW

Chapter 5

ESP32

5.1 Project Structure

5.2 ESP NOW

[1]

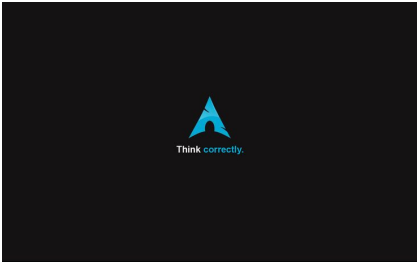
Chapter 6

Raspberry Pi

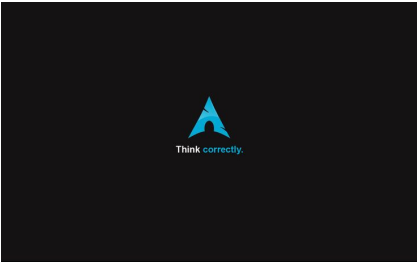
6.1 Raspberry to ESP Communication

6.2 Database

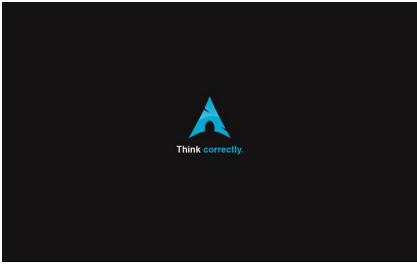
6.3 Web Server



(a) 1



(b) 2



(c) 3

Figure 6.1: Figure

List of Figures

6.1 Figure 10

Bibliography

[1] Wikipedia. Wikipedia.