

Chapter 1

Introduction

1.1 Problem Statement

Due to COVID-19 [ref], many countries established mandatory lockdown, which increased the usage of entertainment platforms. Television continues to have an important role in this matter, and that's why a better user experience, through a good interface, is increasingly needed. Despite knowing that smart TV's market is growing, because of its features, a large percentage of the televisions in use are non-smart TV's, which use infrared sensors to allow the user to control the TV, via a remote control. In this report, it will be analyzed and designed a remote control with the following characteristics: it must control the TV using an infrared sensor, it must be light and battery powered. It should have three buttons: one to switch the TV on/off, called "Power"; the other two buttons are used to scroll up/down and select the available channels, and they are labeled with the arrows up/down, respectively. The main goal of this project is to consolidate the methods of the Waterfall model, as it is a classic model in software development methodology, suitable for small-scale projects.

1.2 Problem Statement Analysis

Chapter 2

Analysis

2.1 Market Research

2.1.1 Market Definition

2.2 System

2.2.1 System Overview

2.2.2 System Requirements and Constraints

2.2.3 Hardware and Software Specification

2.3 Analysis Verification