**PROJECTNAME Control Board**

**Software Requirement Document**

**Revision A**

Change Record

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| --- | --- | --- |
| **Rev.** | **Date** | **Description of Change** |
| X1 | XX/XX/XX | Initial Draft |

1. Purpose

The purpose of this document is to describe the Software functionality needed for the PROJECTNAME project.

1. Scope

This document describes the Software functionality needed. The hardware requirements are covered in “PROJECTNAME Control Board HW Requirements Document (HRD)” DOC#XXXXX

1. Related Documentation
   1. PROJECTNAME Product Requirements Document DOC#XXXXX
   2. PROJECTNAME Control Board HW Requirements Document (HRD) DOC#XXXXX
   3. PROJECTNAME Build and Installation DOC#XXXXX
   4. PROJECTNAME Software Testing Procedure DOC#XXXXX
   5. PROJECTNAME Software Baseline DOC#XXXXX
   6. PROJECTNAME Traceability Matrix DOC#XXXXX
   7. PROJECTNAME Commands Control flows DAC#TBD
2. Overview
   1. Motivation

The purpose of this document is to describe the software requirements for the PROJECTNAME. The rest of this document describe what shall be included in a software requirements document.

2. Body

This document is meant as an internal reference to guide a software product. What is traditionally referred to as “firmware”, code that is embedded in a hardware system, is also covered by this document. In a software requirements document, this section will describe what parts of the final product are described by the document. At minimum, the source code will be described, and how that code causes physical mechanisms, via integrated parts on the installation medium (like LEDs on a PCB), or connections to physical devices (like remote controlled instruments).

The purpose of this document is to provide most of the structure for a software requirements document, so that the software designer will only need to fill in the specifics of the project and not re-invent the format of the document. The user is free to modify the format as needed for the specific software project.

* 1. System Architecture

The document should describe the architecture of the software system. This will be the majority of the document.

* 1. High-Level Requirements:

This section describes what the software must ultimately achieve.

* 1. Hardware Requirements:

This section describes what hardware is needed for the software to achieve its needed goals. This can include ICs, MCU specs, connection ports, indicator tools, etc.

* 1. Function Requirements:

This section describes the specific functions the firmware must be able to achieve, where a function is actions taken by the software in response to stimuli, whether that be communication inputs, or entering a specific state.