**PO2EBL\_ELECTRIC BLENDER**

**CYRS DOCUMENT**

**Version 0.4**

**Proposed**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Document Status** | **Author** |
| 1/22/2020 | 0.1 | Draft | May Alaa El-din |
| 1/23/2020 | 0.2 | Proposed | Mohamed Ibrahem |
| 1/31/2020 | 0.3 | Proposed | Mohamed Ibrahem |
| 02/1/2020 | 0.4 | Proposed | Mohamed Ibrahem |
|  |  |  |  |

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 1/22/2020 | 0.1 | Initial Draft, specifying Introduction, system overview and document outline. | May Alaa El-din |
| 1/23/2020 | 0.2 | Update the draft, requirements table | Mohamed Ibrahem |
| 1/31/2020 | 0.3 | Update the requirement according the review (safe monitoring, monitoring speed, add reference table). | Mohamed Ibrahem |
| 02/1/2020 | 0.4 | Update the reference table, requirement table | Mohamed Ibrahem |
|  |  |  |  |

**Contents**

[**1 Introduction** 4](#_Toc31447549)

[1.1 Specification Definition 4](#_Toc31447550)

[1.2 Specification Objectives 4](#_Toc31447551)

[**2 System Overview:** 5](#_Toc31447552)

[2.1 Definition: 5](#_Toc31447553)

[2.2 Objective: 5](#_Toc31447554)

[2.3 Hardware 5](#_Toc31447555)

[**3 Functional Requirements:** 6](#_Toc31447556)

[3.1 Speed Levels 6](#_Toc31447557)

[3.2 Speed Controls 6](#_Toc31447558)

[3.3 Safety Monitoring 6](#_Toc31447559)

[3.4 Monitoring Speed 6](#_Toc31447560)

[4 Reference table: 7](#_Toc31447561)

# **1 Introduction**

This section introduces the customer requirements specification (CYRS) for the KENOVO Electric Blender.

## 1.1 Specification Definition

This specification documents the system-level requirements for the Electric Blender.

## 1.2 Specification Objectives

The objectives of this specification are to:

* Provide a system overview of the Electric Blender including definition, goals, objectives, context, and major capabilities.
* To formally specify its associated:
* Functional requirements.
* Data requirements.
* Quality requirements.
* Constraints.

# **2 System Overview:**

## 2.1 Definition:

The Electric Blender System is an appliance created by KENOVO. The electric blender system has 3 speeds that can be configured by the user with high safety to avoid system failure caused by unexpected voltage peaks.

## 2.2 Objective:

The objective of the Electric Blender System is to provide the user with a high quality home appliance with high speed configurability as well as safety monitoring.

## 2.3 Hardware

The System hardware shall be:

* The external appliance body
* Microcontroller
* DC motor
* One push button

# **3 Functional Requirements:**

|  |  |  |
| --- | --- | --- |
| **Feature** | **REQ\_ID** | **Description** |
| 3.1 Speed Levels | REQ\_PO2EBL\_CYRS\_01\_V03 | The system has four status three speed levels and the Off status. **#imp SW** |
| 3.2 Speed Controls | REQ\_PO2EBL\_CYRS\_02\_V03 | the blender shall operate between 3 different speeds (Speed1 → Speed 2 → Speed 3) triggered by a button press after the fourth press it returns back to its initial state (off).  **#imp SW** |
| 3.3 Safety Monitoring | REQ\_PO2EBL\_CYRS\_03\_V04 | The system should monitor the input voltage level using voltage level sensor to ensure the safety of the motor. If the input voltage level increases over the charted levels or decreases below it, the blender shall be turned off.  **#imp SW #imp HW** |
| 3.4 Monitoring Speed | REQ\_PO2EBL\_CYRS\_04\_V03 | The system shall monitor the blender speed and turns on led and its light intensity correspond to a specific speed of the blender. **#imp SW** |

# 4 Reference table:

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Version** | **Status** | **Document** |
| 1 | 0.1 | Released | Electric Blender customer requirement |
| 2 | - | - | SIQ |