**PO2EBL\_ELECTRIC BLENDER**

**CYRS DOCUMENT**

**Version 2.2**

**Proposed**

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| **Date** | **Version** | **Document Status** | **Author** |
| 02/11/2020 | 2.2 | Proposed | Mohamed Ibrahem |

# Document Status:

# Revision History

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| --- | --- | --- | --- | --- |
| **Date** | **Version** | **Status** | **Description** | **Author** |
| 01/22/2020 | 1.1 | Draft | Initial Draft, specifying Introduction, system overview and document outline. | May Alaa El-din |
| 01/23/2020 | 1.2 | Draft | Update the draft, requirements table | Mohamed Ibrahem |
| 01/25/2020 | 1.3 | Proposed | Reviewed Document structure and updated Document status to Proposed | May Alaa El-din |
| 01/31/2020 | 1.4 | Proposed | Update the requirement according the review (safe monitoring, monitoring speed, add reference table). | Mohamed Ibrahem |
| 02/01/2020 | 1.5 | Proposed | Update the reference table, requirement table | Mohamed Ibrahem |
| 02/03/2020 | 1.6 | Proposed | Update the CYRS document versioning | Mohamed Ibrahem |
| 02/06/2020 | 1.7 | Proposed | Update the CYRS requirements according to SIQ sheet (Remove REQ\_PO2EBL\_CYRS\_03) | Mohamed Ibrahem |
| 02/06/2020 | 1.8 | Proposed | Review CYRS and update Current document status table | Ali Samir |
| 02/07/2020 | 1.9 | Proposed | Update the date format in page 2 , modify REQ\_P02EBL\_CYRS\_02 and remove Hardware section | Mohamed Ibrahem |
| 02/08/2020 | 2 | Proposed | Update the CYRS documents versioning | Mohamed Ibrahem |
| 02/08/2020 | 2.1 | Proposed | Update the Date format | Mohamed Ibrahem |
| 02/11/2020 | 2.2 | Proposed | Update the date format Add Block diagram and Add Control inputs with outputs REQ\_PO2EBL\_CYRS\_04\_V1.0 | Mohamed Ibrahem |

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# **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:

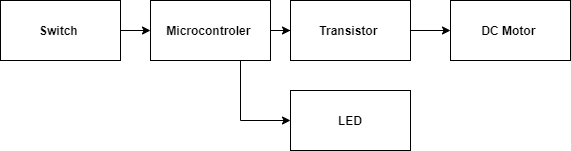
## 2.1 Definition:

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 Block Diagram



# 3 Functional Requirements:

|  |  |  |
| --- | --- | --- |
| Feature | Requirement ID | Description |
| 3.1 Speed Levels | REQ\_PO2EBL\_CYRS\_01\_V1.3 | The system has four status three speed levels and the Off status. **#imp SW** |
| 3.2 Speed Controls | REQ\_PO2EBL\_CYRS\_02\_V1.6 | 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 Monitoring Speed | REQ\_PO2EBL\_CYRS\_03\_V1.3 | 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** |
| 3.4 Control Inputs with Outputs | REQ\_PO2EBL\_CYRS\_04\_V1.0 | The Microcontroller shall monitor the switch state   * If the switch is pressed, a pulse shall be generated on the DC motor enable pin * The pulse duty cycle is varied according to the press number * The motor shall operate on a speed respective to the generated duty cycle * The LED intensity vary according to the duty cycle. **#imp SW** |

# 4 Reference table:

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Version** | **Document** | **Status** |
| 1 | 1.0 | Electric Blender customer requirement | Released |
| 2 | - | SIQ | - |