**PO2EBL\_ELECTRIC BLENDER**

**SRS DOCUMENT**

**Version 1.4**

**Proposed**

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| 1/24/2020 | 1.2 | Draft | Kariman Mohamed |
| 2/4/2020 | 1.3 | Proposed | Kariman Mohamed |
| 2/6/2020 | 1.4 | Proposed | Kariman Mohamed |
| 2/7/2020 | 1.5 | Proposed | Kariman Mohamed |

**Document Status**

Document History

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| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Change** |
| 1.1 | 1/24/2020 | Kariman  mohamed | Initial Draft, specifying Introduction, system overview and document outline. |
| 1.2 | 1/24/2020 | Kariman  mohamed | Edit description of Functional Requirements. |
| 1.3 | 2/4/2020 | Kariman  mohamed | Update the SRS document version and edit description of Functional Requirements. |
| 1.4 | 2/6/2020 | Kariman  mohamed | Update the SRS requirements according to change in CYRS to remove safety monitor requirement. |
| 1.5 | 2/7/2020 | Kariman  mohamed | Update the SRS requirements according to changes in CYRS and according to the SRS review. |

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# **1 Introduction**

This section introduces the software requirements specification (SRS) for the KENOVO Electric Blender.

## **1.1 Specification Definition**

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

## **1.2 Specification Objectives**

The objectives of this specification are to:

* Provide a software overview of the Electric Blender.
* To formally specify its associated:
* Software 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.

**3 Software Requirements:**

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| --- | --- | --- | --- |
| **REQ\_ID** | REQ\_PO2EBL\_SRS\_01\_V1.5 | **Covers** | REQ\_PO2EBL\_  CYRS\_01\_V1.3 |
| **Author** | Kariman mohamed | **Date** | 2/7/2020 |
| **Description** | SW shall provide low level of speed by generating pulse width modulation with duty cycle 30%  (if the low speed flag is true). | | |
| **Inputs** | Low speed flag | **Outputs** | Low speed mode |
| **Test scope** | VTD | | |

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| **REQ\_ID** | REQ\_PO2EBL\_SRS\_02\_V1.5 | **Covers** | REQ\_PO2EBL\_  CYRS\_01\_V1.3 |
| **Author** | Kariman mohamed | **Date** | 2/7/2020 |
| **Description** | SW shall provide medium level of speed by generating pulse width modulation with duty cycle 60% (if medium speed flag is true). | | |
| **Inputs** | Medium speed flag | **Outputs** | Medium speed mode |
| **Test scope** | VTD | | |

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| **REQ\_ID** | REQ\_PO2EBL\_SRS\_03\_V1.5 | **Covers** | | REQ\_PO2EBL\_  CYRS\_01\_V1.3 |
| **Author** | Kariman mohamed | **Date** | | 2/7/2020 |
| **Description** | SW shall provide high level of speed by generating pulse width modulation with duty cycle 90%  (if high speed flag is true). | | | |
| **Inputs** | High speed flag | **Outputs** | High speed mode | |
| **Test scope** | VTD | | | |

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| **REQ\_ID** | REQ\_PO2EBL\_SRS\_04\_V1.5 | **Covers** | REQ\_PO2EBL\_  CYRS\_02\_V1.6 |
| **Author** | Kariman mohamed | **Date** | 2/7/2020 |
| **Description** | SW shall turn on the motor in low speed mode when the switch is first pressed  (if first press flag is true). | | |
| **Inputs** | First press flag | **Outputs** | Set low speed flag |
| **Test scope** | ITD/VTD | | |

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| **REQ\_ID** | REQ\_PO2EBL\_SRS\_05\_V1.5 | **Covers** | REQ\_PO2EBL\_  CYRS\_02\_V1.6 |
| **Author** | Kariman mohamed | **Date** | 2/7/2020 |
| **Description** | SW shall operate the motor in medium speed mode when the switch is second pressed  (if second press flag is true). | | |
| **Inputs** | Second press flag | **Outputs** | Set medium speed flag |
| **Test scope** | ITD/VTD | | |

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| **REQ\_ID** | REQ\_PO2EBL\_SRS\_06\_V1.5 | **Covers** | REQ\_PO2EBL\_  CYRS\_02\_V1.6 |
| **Author** | Kariman mohamed | **Date** | 2/7/2020 |
| **Description** | SW shall operate the motor in high speed mode when the switch is third pressed  (if third press flag is true). | | |
| **Inputs** | Third press flag | **Outputs** | Set high speed flag |
| **Test scope** | ITD/VTD | | |

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| **REQ\_ID** | REQ\_PO2EBL\_SRS\_07\_V1.5 | **Covers** | REQ\_PO2EBL\_  CYRS\_02\_V1.6 |
| **Author** | Kariman mohamed | **Date** | 2/7/2020 |
| **Description** | SW shall turn the motor off when the switch is fourth pressed(if fourth press flag is true). | | |
| **Inputs** | Fourth press flag | **Outputs** | Set stop flag |
| **Test scope** | ITD/VTD | | |

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| **REQ\_ID** | REQ\_PO2EBL\_SRS\_08\_V1.5 | **Covers** | REQ\_PO2EBL\_  CYRS\_02\_V1.6 |
| **Author** | Kariman mohamed | **Date** | 2/7/2020 |
| **Description** | SW shall repeat the sequence when the switch is fifth pressed (if fifth press flag is true). | | |
| **Inputs** | Fifth press flag | **Outputs** | Set low speed flag |
| **Test scope** | ITD/VTD | | |

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| **REQ\_ID** | REQ\_PO2EBL\_SRS\_09\_V1.5 | **Covers** | EQ\_PO2EBL\_  CYRS\_03\_V1.3 |
| **Author** | Kariman mohamed | **Date** | 2/7/2020 |
| **Description** | SW shall turn on the led with low intensity mode if low speed flag is true. | | |
| **Inputs** | Low speed flag | **Outputs** | Set low intensity flag |
| **Test scope** | ITD/VTD | | |

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| **REQ\_ID** | REQ\_PO2EBL\_SRS\_10\_V1.5 | **Covers** | EQ\_PO2EBL\_  CYRS\_03\_V1.3 |
| **Author** | Kariman mohamed | **Date** | 2/7/2020 |
| **Description** | SW shall turn on the led with low intensity mode if medium speed flag is true. | | |
| **Inputs** | Medium speed flag | **Outputs** | Set medium  intensity flag |
| **Test scope** | ITD/VTD | | |

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| **REQ\_ID** | REQ\_PO2EBL\_SRS\_11\_V1.5 | **Covers** | EQ\_PO2EBL\_  CYRS\_03\_V1.3 |
| **Author** | Kariman mohamed | **Date** | 2/7/2020 |
| **Description** | SW shall turn on the led with low intensity mode if high speed flag is true. | | |
| **Inputs** | High speed flag | **Outputs** | Set high intensity flag |
| **Test scope** | ITD/VTD | | |

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| **REQ\_ID** | REQ\_PO2EBL\_SRS\_12\_V1.5 | **Covers** | EQ\_PO2EBL\_  CYRS\_03\_V1.3 |
| **Author** | Kariman mohamed | **Date** | 2/7/2020 |
| **Description** | SW shall turn the led off if stop flag is true. | | |
| **Inputs** | Stop flag | **Outputs** | Set led off flag |
| **Test scope** | ITD/VTD | | |

**4** **Reference table:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Version** | **Status** | **Document** |
| 1 | 1.9 | Proposed | CYRS |
| 2 | 1.4 | Proposed | HSI |