Customer Requirements Specification

**SAG Glasses**

**ـــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــ**

**Table of Contents**

Document Status:………………………………………………………………...1 Document History:………………………………………………………………..1 Reference Document:…………………………………………………………....2 Project Description:……………………………………………………………....3

**Document Status:**

|  |  |  |
| --- | --- | --- |
| **Name** | PO\_SAG\_CRS\_Glasses | |
| **Version** | V1.3 | |
| **Status** | Proposed | |
| **Author** | Omnia Muhammed | |
| **Date** | [17-11-2022] | |
| **Team Approval** | Reham | Approved |
| **Mentor Approval** |  |  |
| **Final Approval** |  |  |

**Document History:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Author** | **Date** | **Change** |
| 1.0 | Reham Essam | [28/9/2022] | * Initial Creation |
| 1.1 | Jana Muhammed | [11/11/2022] | * Edit CRS Requirements * Edit Key Elements |

|  |  |  |  |
| --- | --- | --- | --- |
| 1.2 | Jana Muhammed | [13/11/2022] | * Edit CRS Requirements * Edit system context |
| 1.3 | Omnia Muhammed | [17/11/2022] | * Edit Features * Edit Key Elements * Edit System Context * Edit CRS Requirements |

**Reference Document:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Ref.number** | **Doc.Name** | **Version** | **Status** |
| 1 | PO\_SAG\_CR\_Glasses | V1.2 | Released |

**Project Description:**

Definition:

The Design of the project is The Glasses closed around the head, between the two lenses of the Glasses there is a camera, on the right hand there is a power button , flash and mic , on the left side there are three buttons and a speaker.

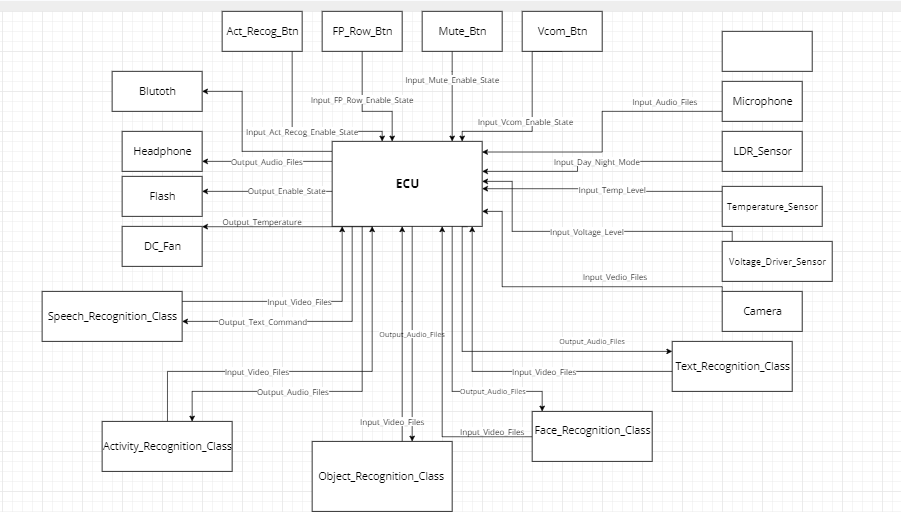
Features:

* Glasses’ features can be controlled by the user through buttons.
* Glasses have two modes (Day mode - Night mode).
* Glasses can capture images.
* Glasses support the voice command.
* Glasses can speak.
* ECU protection and maintenance.
* The glasses use Bluetooth to connect to the mobile application.‏

Key Elements:

* The Glasses shall have a button to turn it on/off.
* The Glasses shall have a button to control the headphone sound.
* The Glasses shall have a button to enable/disable image caption feature.
* The Glasses shall have a button to enable/disable voice commands.
* The Glasses shall detect the night/day mode using LDR.
* The Glasses shall have a camera that supports real-time capturing.
* The Glasses shall have a microphone through which it receives voice commands.
* The Glasses shall have headphones to play any audio.
* The Glasses shall keep tracking voltage and temperature level.
* The Glasses shall decrease heat using a DC fan.
* Each pair of glasses has external low energy bluetooth.
* Each pair of glasses has a unique Bluetooth ID, which it uses to connect to the mobile application.‏

System Context:



CRS Requirements:

|  |  |  |  |
| --- | --- | --- | --- |
| **Req\_ID** | Req\_PO\_SAG\_CRS\_Glasses\_***001***-V1.2 | **Covers** | PO\_SAG\_CR\_Glasses\_***001***-V1.1 |
| **Description** | The user shall press the “Fp\_Pow\_Btn” fingerprint power button to turn on and verify the glasses. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Req\_ID** | Req\_PO\_SAG\_CRS\_Glasses\_***002***-V1.2 | **Covers** | PO\_SAG\_CR\_Glasses\_***001***-V1.1 |
| **Description** | the user shall press the “Fp\_Pow\_Btn” fingerprint power button to turn off the glasses. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Req\_ID** | Req\_PO\_SAG\_CRS\_Glasses\_***003***-V1.2 | **Covers** | PO\_SAG\_CR\_Glasses\_***002***-V1.1 |
| **Description** | the user shall press the ”Mute\_Btn” mute button to switch the headphones' status between muted and unmuted . | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Req\_ID** | Req\_PO\_SAG\_CRS\_Glasses\_***004***-V1.2 | **Covers** | PO\_SAG\_CR\_Glasses\_***003***-V1.1 |
| **Description** | The user shall enable or disable the glasses' ability to inform him of what is happening around him by pressing the “Act\_Recog\_Btn” action recognition button. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Req\_ID** | Req\_PO\_SAG\_CRS\_Glasses\_***005***-V1.2 | **Covers** | PO\_SAG\_CR\_Glasses\_***004***-V1.1 |
| **Description** | The user shall press the”VCom\_Btn” voice command button to enable receiving audio files through the microphone.‏ | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Req\_ID** | Req\_PO\_SAG\_CRS\_Glasses\_***006***-V1.2 | **Covers** | PO\_SAG\_CR\_Glasses\_***005***-V1.1 |
| **Description** | The LDR sensors sends a reading to the ECU, which recognizes the night mode and turns on the flash automatically. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Req\_ID** | Req\_PO\_SAG\_CRS\_Glasses\_***008***-V1.2 | **Covers** | PO\_SAG\_CR\_Glasses\_***008***-V1.2 |
| **Description** | the user shall listen to audio files through the headphones | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Req\_ID** | Req\_PO\_SAG\_CRS\_Glasses\_***009***-V1.2 | **Covers** | PO\_SAG\_CR\_Glasses\_***009***-V1.1 |
| **Description** | In order for the ECU to determine when the battery needs to be charged, the voltage sensor sends the voltage level value. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Req\_ID** | Req\_PO\_SAG\_CRS\_Glasses\_***010***-V1.2 | **Covers** | PO\_SAG\_CR\_Glasses\_***009***-V1.1 |
| **Description** | The temperature sensor takes the board's temperature reading and transmits it to the ECU, which uses it to decide what to do. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Req\_ID** | Req\_PO\_SAG\_CRS\_Glasses\_***011***-V1.2 | **Covers** | PO\_SAG\_CR\_Glasses\_***010***-V1.1 |
| **Description** | The DC fan is automatically turned on to reduce temperature when the ECU determines that the board's temperature is too high. | | |

nhh

jj