Customer Requirements Specification

**PO\_SAG\_CRS\_Glasses**

**ـــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــ**

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**Document Status:**

|  |  |
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| 1.0 | Reham Essam | [28/9/2022] | ● Initial Creation  ● Add definition  ● Add features  ● Add Key elements  ● Add System Context  ● Add CRS Requirements |

**Reference Document:**

|  |  |  |  |
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| 1 | PO\_SAG\_CR\_Glasses | V1.2 | Proposed |

**Project Description:**

Definition:

The Design of the project is 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.

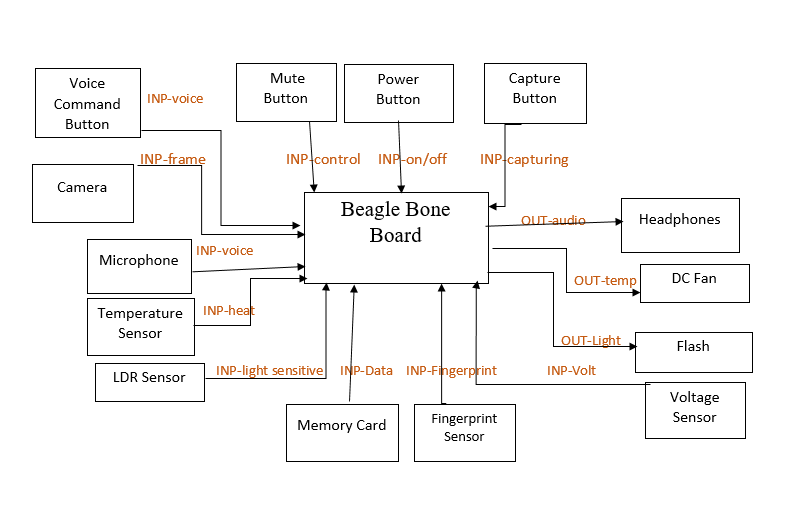
Features:

* Glasses’ features can be controlled by the user.
* 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’ OS is a real time OS.

Key Elements:

* Glasses support the user's security as each user has his own voice signature on it, another option is using the fingerprint sensor.
* Glasses have a power button and three buttons that control Features.
* Glasses can work in Day / Night Mode.
* Glasses can detect the night mode using LDR.
* Glasses have a camera that supports real-time capturing.
* Glasses have a microphone through which it receives voice commands.
* Glasses have a speaker to play any audio (mp3 files are received from the machine learning models).
* Voltage and temperature level can be tracked.
* DC fan used to decrease heat.
* Generate a customized OS with specific configurations.

System Context:



CRS Requirements:

**Req\_ID** Req\_PO\_SAG\_CRS\_Glasses\_***001***-V1.0 **Covers**\_PO\_SAG\_CR\_Glasses\_***007***-V1.0

**Description:** User starts to speak until the glasses recognize him.

**Req\_ID** Req\_PO\_SAG\_CRS\_Glasses\_***002***-V1.0 **Covers**\_PO\_SAG\_CR\_Glasses\_***001***-V1.1

**Description:**Touch a fingerprint sensor on the power button in case the glasses don’t recognize him.

**Req\_ID** Req\_PO\_SAG\_CRS\_Glasses\_***002***-V1.0 **Covers**\_PO\_SAG\_CR\_Glasses\_***003***-V1.1

**Description:** The glasses select mode(Day mode, Night mode).

**Req\_ID** Req\_PO\_SAG\_CRS\_Glasses\_***003***-V1.0 **Covers**\_PO\_SAG\_CR\_Glasses\_***004***-V1.1

**Description:** The LDR sensor detects the night mode and opens Flash.

**Req\_ID** Req\_PO\_SAG\_CRS\_Glasses\_***004***-V1.0 **Covers**\_PO\_SAG\_CR\_Glasses\_***002***-V1.1

**Description:**The glasses start to detect everything, until the user presses the muted button.

**Req\_ID** Req\_PO\_SAG\_CRS\_Glasses\_***005***-V1.0 **Covers**\_PO\_SAG\_CR\_Glasses\_***005***-V1.1

**Description:**Press capturing button,if the user wants to know the person’s activities surround him.

**Req\_ID** Req\_PO\_SAG\_CRS\_Glasses\_***006***-V1.0 **Covers**\_PO\_SAG\_CR\_Glasses\_***007***-V1.0

**Description:**press the voice button to activate mic to receive voice command.

**Req\_ID** Req\_PO\_SAG\_CRS\_Glasses\_***007***-V1.0 **Covers**\_PO\_SAG\_CR\_Glasses\_***006***-V1.2

**Description:**speaker plays any audio (mp3 files are received from the machine learning models).

**Req\_ID** Req\_PO\_SAG\_CRS\_Glasses\_***008***-V1.0 **Covers**\_PO\_SAG\_CR\_Glasses\_***008***-V1.2

**Description:**Voltage sensor measures the battery volt and sends a signal if the battery needs to charge.

**Req\_ID** Req\_PO\_SAG\_CRS\_Glasses\_***009***-V1.0 **Covers**\_PO\_SAG\_CR\_Glasses\_***008***-V1.2

**Description:**Temperature sensor measures heat of board.

**Req\_ID**Req\_PO\_SAG\_CRS\_Glasses\_***0010***-V1.0**Covers**\_PO\_SAG\_CR\_Glasses\_***009***-V1.1

**Description**:DC fan decreases the heat of the board.