Customer Requirements

**SAG ML**

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| 1.1 | Aya Ibrahim | [23-9-2022] | Definition, features, key elements, mapping |

Project Description:

Definition:

The project is intended to help the blind using computer vision to help him to identify different things around him and NLP to interact with the user using voice commands.

The project simulates the normal vision of humans using AI techniques enabling the blind to function more normally and independently.

Features:

* Object detection
* Face recognition
* Activity recognition
* Text recognition
* Speech recognition

Key Elements:

1. Identify objects around the user.
2. determine the distance between objects and the person
3. Describing the different activities and actions around the user
4. Recognizing text including handwritten on different objects (book, paper, sign, …)
5. Recognizing people determined by user
6. Speech recognition to activate different features and the assistant
7. Voice authentication

Requirements Mapping:

| **Req\_ID** | PO\_SAG\_CR\_ML\_001-V1.1 | **Covers** | Identify objects around the user. |
| --- | --- | --- | --- |
| **Req\_ID** | PO\_SAG\_CR\_ML\_002-V1.0 | **Covers** | determines the distance between objects and the person |
| **Req\_ID** | PO\_SAG\_CR\_ML\_003-V1.1 | **Covers** | Describing the different activities and actions around the user |
| **Req\_ID** | PO\_SAG\_CR\_ML\_004-V1.1 | **Covers** | Recognizing text including handwritten on different objects (book, paper, sign, …) |
| **Req\_ID** | PO\_SAG\_CR\_ML\_005-V1.1 | **Covers** | Recognizing people determined by user |
| **Req\_ID** | PO\_SAG\_CR\_ML\_006-V1.1 | **Covers** | Speech recognition to activate different features and the assistant |
| **Req\_ID** | PO\_SAG\_CR\_ML\_007-V1.0 | **Covers** | Voice authentication |