Software Requirements Specification

Speed Bump ES

**ــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــ**

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## Reference Document:

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| 1 | PO\_SB\_CRS\_ES | V1.2 | proposed |

## Project Description:

### Definition:

The device detects speed bumps.

### Features:

* The device can capture images.
* ECU protection and maintenance.
* ECU will communicate with the mobile application via Bluetooth.

### Key elements

* The ECU shall connect to a camera that supports real-time capturing.
* The ECU shall monitor the battery’s voltage level.
* The ECU shall enable/disable power saving mode.
* The ECU shall monitor its heat level.
* ECU shall communicate with mobile app through BLE (Bluetooth Low Energy )‏.
* ECU shall send the detected bump information to the mobile app via Bluetooth.
* ECU shall notify the mobile app with battery issues (under/over voltage range )‏.
* ECU shall notify the mobile app when the ECU is over/under normal heat level‏.
* The ECU shall be connected to a DC fan to decrease heat.

## Software context:



## 

## SRS Requirements:

|  |  |  |  |
| --- | --- | --- | --- |
| **Req\_ID** | PO\_SB\_SRS\_**001**-V1.0 | **Covers** | PO\_SB\_CRS\_**001**-V1.0 |
| **Description** | For example, In Button handler, SW shall read the input signal “ **BTN1** “ | | |
| **Inputs** | Input name as the context or inner signal | **Outputs** | ----- |