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| General Information | |
| Use Case Name\Number : 002  Subject Area : RC Car Sensors  Description : User calibrates the accelerometer sensor | Responsible Analyst :Sanchez |

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| Requirements/Feature Trace | |
| **REQ#** | Requirements Name and / or Short Description |
| 1.3, 1.4 | System shall reset the sensor via wireless network |
| 4.1 | System shall gather the sensor readings to verify it has been calibrated |
| 4.4 | The actual requirement related to zeroing the accelerometer |
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| Revision History | | |
| Author | **Date** | **Comments** |
| Sanchez | 10/28/14 | Initial draft of use case |
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| **Insertion Points in other Use Cases** | | |
| Use Case Name | **Use Case Number** | **Step Inserted After** |
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| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| Driver | Person | The driver should reset the accelerometer before driving |
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| **Pre-Conditions** | |
| # | Description |
| 1 | Client system has network access to the RC server system |
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| **Start Stimulus** |
| User runs the client application and wants to calibrate the accelerometer before driving the RC |

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| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | User selects Calibrate Sensors option |  |  |
| 2 | System presents calibration menu |  |  |
| 3 | User selects accelerometer |  |  |
| 4 | System presents accelerometer calibration menu, containing an inertial graph |  |  |
| 5 | User sets zero position once the RC car has been positionally stabilized |  |  |
| 6 | System sends zero signal to accelerometer |  |  |
| 7 | System displays success dialog and shows inertial graph at rest |  |  |

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| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| Accelerometer reset failure | System prompts user of failure and retries command, if secondary failure occurs, system prompts user to check connections |  |

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| Post-Conditions | |
| **#** | **Description** |
| 1 | Accelerometer has been calibrated |
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| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| InertialSensor | Sensor object interface | Value, Offset, Pin |
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| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | System has proper connection to sensor | 10/28/14 | Sanchez | 10/28/14 | Sanchez |
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| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
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| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Sanchez | This use case scenario should be trivial | 10/28/14 |
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| Frequency of Execution |
| **Frequency:**  1 Minimum: 1 Maximum: 1 Average: 1 (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: System Use |

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| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
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| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
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| **Alternate Course General Information** |
| Alternate Course Name:  Alternate Course Number:  Parent Use Case Name:  Parent Use Case Number:  Description:  Reason for Execution: Non Exception:  Exception:  Exception #: |

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| Insertion Point |
| Step Inserted After |
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| Pre-Conditions | |
| 1. |  |
| 2. |  |

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| Alternate Course Steps | | | |
| **#** | **Step Description** | **Adds Use Case #** | **Business Rule(s)#** |
| 1. |  |  |  |
| 2. |  |  |  |
| 3. |  |  |  |
| 4. |  |  |  |

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| Post-Conditions | |
| 1. |  |
| 2. |  |