Velomobile Control & Telemetry System

Use Case Specification

Start Up

Version 1.0

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Ver.** | **Description** | **Author** |
| February 16, 2010 | 1.0 | Initial Composition | John Schmidt |

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# Start Up

## Brief Description

The rider turns the system on.

## Requirements Trace

x.x.x

## Involved Actors

Rider – The rider will be the one activating the system.

# Flow of Events

## Basic Flow

This use case begins when the system is powered on by the rider.

1. The user powers the system on.
2. The ECU displays its boot screen.
3. The ECU queries all sensors.
4. The ECU loads calibration settings.
5. The ECU displays home screen.

# Preconditions

The system is unpowered.

# Post Conditions

The system is ready to receive sensor data.

# Scenarios

## Happy Day

**Assumptions**: The system powers on correctly.

**Steps:**

1. The user turns the system on.
2. The ECU displays its boot screen to the user.
3. The ECU detects all sensors successfully.
4. The ECU loads all calibration settings for calculations.
5. The ECU displays the home screen to the rider.

## Rainy Day

**Assumptions:** Various sensors are not detected.

**Steps:**

1. The user turns the system on.
2. The ECU displays its boot screen.
3. The ECU detects some sensors successfully.
4. The ECU does not receive a signal from the brake sensor.
5. The ECU displays an error message indicating to the rider which sensor is not responding properly.