Velomobile Control & Telemetry System

Use Case Specification

Pair Bluetooth Device

Version 1.1

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Ver.** | **Description** | **Author** |
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# Pair Bluetooth Device

## Brief Description

Case will create a paired connection between the Bluetooth Device and ECU.

## Requirements Trace

2.1.1, 2.1.2

## Involved Actors

Rider – The user will need physical access to the system.

Bluetooth Device – A Bluetooth Modem with DUN.

# Flow of Events

## Basic Flow

This use case begins when the rider wasn’t to enable the telemetric stream.

1. The rider will navigate to the systems Bluetooth configuration page.
2. The rider will select to pair a Bluetooth device.
3. The system will scan for visible Bluetooth devices in range of the system.
4. The rider will select the Bluetooth device required.
5. The rider will enter the pin code of the Bluetooth device.
6. The system will then negotiate the connection between the device and the system.
7. The system will indicate a result of the connection attempt.

# Preconditions

Bluetooth Device must have a visible, DUN stack available.

# Post Conditions

The system will be paired with an open connection for internet communication.

# Scenarios

## Happy Day

**Assumptions**: Bluetooth Device is visible and ready to pair.

Bluetooth Device’s ID is “BTmodem”.

Bluetooth Pin is “1234”.

**Steps:**

1. The rider will navigate to the systems Bluetooth configuration page.
2. The rider will select to pair a Bluetooth Device.
3. The system will inquire for visible devices.
4. The system will display a list of visible devices including “BTmodem”.
5. The rider will select “BTmodem”.
6. The rider will enter the pin “1234”.
7. The system will negotiate the connection to “BTmodem” with the pin “1234”.
8. The system will show the Bluetooth icon and the connection strength on the status bar.

## Rainy Day

**Assumptions:** No Bluetooth Devices in pairing mode.

**Steps:**

1. The rider will navigate to the systems Bluetooth configuration page.
2. The rider will select to pair a Bluetooth Device.
3. The system will inquire for visible devices.
4. The system will display “No Visible Bluetooth Connections”.
5. The system will prompt the user to “Search Again” or “Cancel Pairing”.
6. The rider will “Cancel Pairing”.
7. The system will return to the previous state before pairing began.