| **Test Name** | Pump controller starts and stops pump in response to commands |
| --- | --- |
| **Use Case Tested:** |  |
| **Test Description:** | This test verifies the firmware starts the pump when a “run pump” command is received. |
| **Pre-conditions** | * The pump is not running. * All input pins are high (ie not active). |
| **Post-conditions** | Same as pre-conditions. |
| **Notes:** | This test is conducted entirely on the feather. Look for the status messages in the serial monitor. |

|  | **TEST STEP** | **EXPECTED TEST RESULTS** |
| --- | --- | --- |
|  | Use the serial monitor to issue the ‘n’ command to the pump controller. | A log message shows the start pump command is received and processed.  The feather LED lights up. |
|  | Use the serial monitor to issue the ‘f’ command to the pump controller. | A log message shows the stop pump command is received and processed.  The feather LED goes out. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Data Table** | | | | | |
|  | **1** | **2** | **3** | **4** | **5** |
| [Data field 1] | [data set 1 input value for field 1] |  |  |  |  |
| [Data field 2] | [data set 1 input value for field 2] |  |  |  |  |
| [Data field 3] | [data set 1 input value for field 3] |  |  |  |  |

**Results**

10/09/2020

Passed.

Step 1.

14:27:57.015 -> callback got data 1

14:27:57.015 -> Switched pump on.

14:27:57.015 -> Sending status due to state change.

14:27:57.015 -> LoRaWAN will encode and send this message: {'pumpRunning':1,'boreLowLevel':0,'softStartFail':0,'pumpOverload':0,'controllerRestart':0,'highPressure':0,'noFlow':0}

14:27:57.015 -> Sending status byte: 01

Step 2.

14:28:31.196 -> callback got data 0

14:28:31.196 -> Switched pump off.

14:28:31.196 -> Sending status due to state change.

14:28:31.196 -> LoRaWAN will encode and send this message: {'pumpRunning':0,'boreLowLevel':0,'softStartFail':0,'pumpOverload':0,'controllerRestart':0,'highPressure':0,'noFlow':0}

14:28:31.196 -> Sending status byte: 00

14:28:52.715 -> EV\_TXCOMPLETE (includes waiting for RX windows)