Sensor Shield Testing Procedure

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ROHM USDC Applications Engineering Team

HW/FW Preparation

- For Testing the shield boards, we will use the nRF51-DK to test the board's functionality
- Prepare the board by loading the firmware for the Tester that can be found in the GitHub Repo at the following link:
  - https://github.com/ROHMUSDC/ROHM_SensorPlatform_Multi-Sensor-Shield
    - …\ROHM_SensorPlatform_Multi-Sensor-Shield\Platform Code\ShieldTesterCode_nRF51-DK
- Prepare an Android or iPhone with the nRF51-DK UART APP.
  - **nRF UART v2.0**

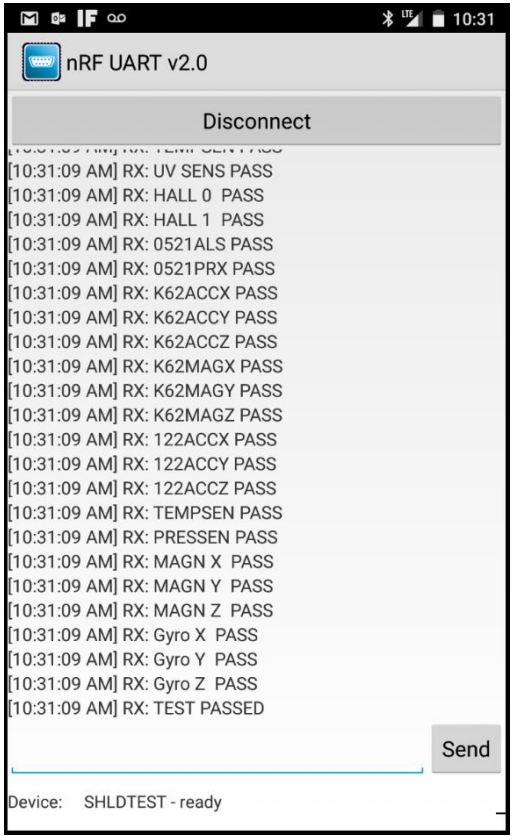
Perform the Test

1. Connect the shield under test to the nRF51-DK board
2. Turn on the DK board
3. Connect the Phone to the DK Board named “SHLDTEST”
4. Check the environment around the shield
    1. Needs any ambient light source shining onto it
    2. Minimize Magnetic Interference as much as possible
5. Upon Connection, send the character “a” to start the test

Passing Conditions

- If all test pass, there is will a message at the end of the testing noting that “TEST PASSED”

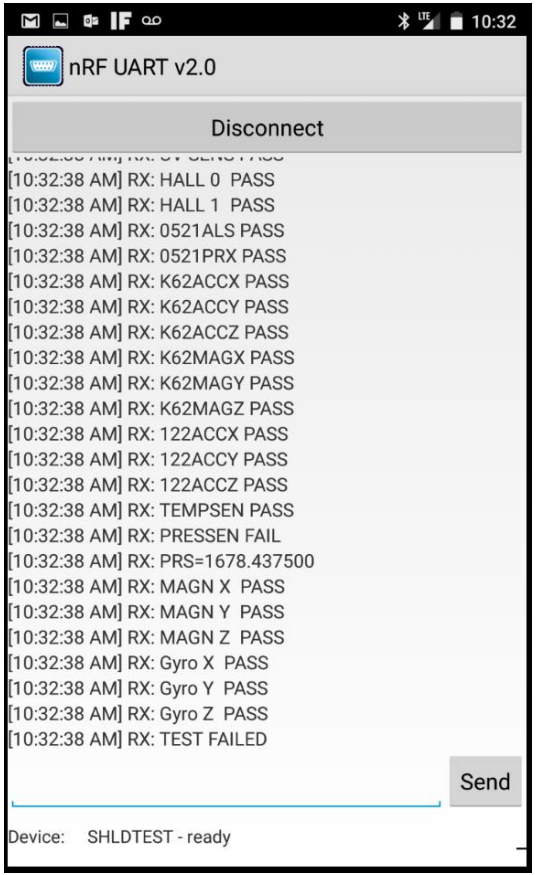
- If the shield passes this criteria, then we can deem the shield as OK and ship out to the WH for distribution



Failing Conditions

- If the Test fails any of the sensor conditions, then the test will return “FAIL” and also return the value that failed the Test

- Write this value down on a sticky note and keep it on the board before bagging it. These boards will be kept locally to replace sensors or used for opportunities where the broken sensors are not needed



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