Name	CR	ER	Verification Method	Test Process	Test Pass Condition
Data Handoff	The logged data can be extracted at the package destination	The system will transfer its logged information to another device.	Inspection	1. Connect to system 2. Download data 3. Look at the data	If the logged system information transfers to another device, this condition passes.
Form Factor	The system should fit into a space smaller than a backpack.	The system will be no larger than 12.5in x 6.5in x 17.5in	Inspection	1) tape a square outline on a surface of 12.5in x 17.5in 2) align a ruler vertically next to the square 3) place the system in the square, and verify that the height is lower than 6.5in and the system is entirely within the square	The system is measured to be less than or equal to 12.5 x 6.5" x 17.5""
Humidity Logging	The system should be able to measure and record dramatic changes in humidity.	The system will periodically measure and log humidity to within 10% accuracy.	Analysis	1) obtain a Hygrometer with <1% measurement error. 2) sample humidity measurements using the system sensor and a hygrometer in a moist outdoor environment. 3) sample humidity measurements using the system sensor and a hygrometer in a dry outdoor environment. 4) sample humidity measurements using the system sensor and a hygrometer in an indoor environment. 5) verify that the set of system measurements falls within 10% humidity of the hygrometer measurements for each environment.	The system measurements fall within 10% humidity of the hygrometer measurements for each environment.
Orientation Logging	The system should be able to measure and record dramatic changes in orientation	The system will periodically measure and log orientation to within 10% accuracy.	Analysis	1) Obtain a reliable digital levelling device with <1% measurement error. 2) Orient the system to be on a level surface, and record a measurement from it's orientation sensor. 3) Compare the recorded value to the value given by the digital levelling device. 4) Repeat steps 2 and 3 with the system oriented at a 45 degree angle. 5) Repeat steps 2 and 3 with the system oriented at a 90 degree angle.	The system reading matches within 10% of the digital levelling device's reading for each angle tested.
Power Configuration/Consumption	The system should be functional for a shipping trip lasting at least a couple weeks.	The system will have power consumption configuration settings that modify the intervals between data captures.	Analysis	1) Select the lowest power consumption configuration. 2) Run the system for 24 hours. 3) Note the time elapsed between data captures and measure net power consumption. 4) Verify that the time elapsed between data captures is consistent and the net power consumption, if continued, would allow 30 days of operation.	The system has a measured power consumption that would allow at least 30 days of operation.
Pressure Logging	The device should be able to measure and record dramatic changes in atmospheric pressure	The system will measure and log pressure to within 10% accuracy	Analysis	1) obtain a Barometer with <1% measurement error. 2) sample atmospheric pressure measurements using the system sensor and a barometer outdoors at OSU 3) sample atmospheric pressure measurements using the system sensor and a barometer at high pressure in a vacuum chamber 4) sample atmospheric pressure measurements using the system sensor and a barometer at low pressure in a vacuum chamber 5) verify that the set of system measurements falls within 10% of the barometer measurements for each environment.	The set of system measurements falls within 10% of the barometer measurements for each environment.
Shock Response	The system should be able to detect significant shock events and turn on the logging system to log current state.	The system will detect shock events and log measurements.	Demonstration	1) turn on the system. 2) put system in a cardboard shipping box. 3) lift the system in the box and drop it from a height of 3ft onto a solid surface. 4) verify that shock event data is logged.	The system detects shock events and logs measurements.
Temperature Logging	The device should be able to measure and record dramatic changes in temperature.	The system will periodically measure and log temperature to within 10% accuracy.	Analysis	1) obtain a thermometer with <1% measurement error. 2) sample temperature measurements using the system sensor and a thermometer in the morning outdoors at OSU. 3) sample temperature measurements using the system sensor and a thermometer in the afternoon outdoors at OSU. 4) sample temperature measurements using the system sensor and a thermometer in the evening outdoors at OSU. 5) verify that the set of system measurements falls within 10% temperature of the thermometer measurements for each environment.	Margin of error between the conventional thermometer and the logged value are equal within 10%.