

Nordic Sensing Problem Statement Shailaja

Problem Statement Worksheet: How can Nordiac Sending Co., bring back the current sensor failure rate from 15% to below 5% (normal 1-2% failure).The company needs to know immediately which manufacturer to shut down or the parts supplier to stop buying from.	
Context: The Nordiac Sending Co., is releasing InSense energy tracking sensor, NSC for the first time to the residential energy usage space. Early stages of testing showed 1-2% of failure while testing. And in March the failure rate spiked to 15% during pre-ship testing, which may cause the delay in shipping.	Constrain within solution space: Chi-Square testing to identify the cause (specific part) or source(specific manufacturer) is not enough. There could be many suppliers for a single part. May be causing confusion while assembling the Sensor.
Criteria for success: Firstly, a solution needs to be identified to know the parts and source causing failure rate to spike. This would lead to, which manufacturer needs to shutdown or parts supplier to stop. At the same time manufacture a new sensor every 30 minutes or so like earlier.	Stakeholders to provide key insight: Otto evans - Incense President Tony abraham - InSense VP Gary Neumont - Head of Manufacturing Vince Macanno - Head of the DataScience Jessica Jones - QA/QC Engineer
Scope of solution space: 4 of the Company's 5 factories are in Asia manufacture 7 Insense sensor parts from 26 suppliers.All of this information is in Excel files spanning across 2 months and needs to be used to find the cause for failure. Before assembling the parts from the supplier, find the way to test.	Key data sources: 1) Data from the cert - attachment from the Vince email. The data covers manufacturing dates going back two quarters with dated results for testing.Additionally, connects the parts suppliers and manufacturer to each InSense sensor and whether it failed on testing. 2. Data from Singapore - attachment from Tomy's email. This has the vendor code, There are 26 suppliers for the seven InSense sensor parts