

Featured Resources: [Industrial Internet Reference Architecture \(IIRA\)](#)
[Industrial Internet Security Framework \(IISF\)](#)

RESULTS

- Reduce false detection rate by 45% in lab trial
- “Near zero” false detection in field operations
- Reduced three experienced QC personnel

Team, Companies, Customer, Key Players

- Huawei
- Haier
- CAICT
- China Telecom

The Challenge

- Improve accuracy of pass/fail detection on window air conditioning unit production
- Retrofit outdated factories whose fault detection was dependent upon human examination

The Solution

- Apply modern sensory networks and analytic technologies to the welding section of the air conditioner production line.
- Integrate the analytic engine for noise detection into the production line.
- Install an ambient noise detection chamber in the quality check station to improve the performance of the pass/fail accuracy rate.

Key Insights

- The 3-tiered architecture in the IIRA enabled the testbed team to have a visual lay out for the customer to understand the task of applying IIoT to the production line.
- For a manufacturer unsure of the steps and benefits of applying IoT to their processes, the IIRA and IISF articulated the role and importance of IoT for the end user and fostered an understanding and better way to adopt these new approaches.
- The Analytic Engine introduced as part of the the Platform stage of the IIRA, enabled the user (manufacturer) to understand the functional role of the noise detection engine and later on learned and impressed with the advanced Machine Learning process adopted in Analytic Engine.
- The demonstrable improvement in the quality check improvement built up the confidence level of the user. As a result, the same Testbed was copied to another kitchen vents production line.

For additional information contact info@consortium.org

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