

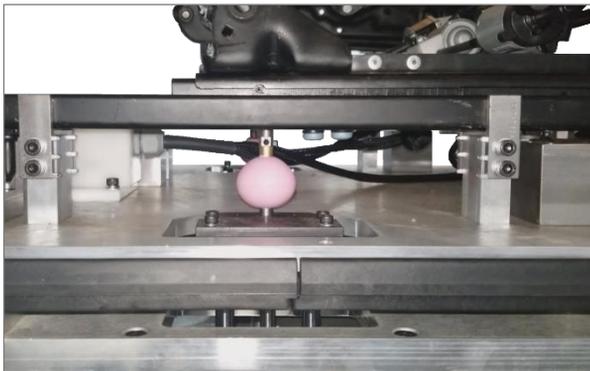
**Signal.X**  
TECHNOLOGIES LLC

We deploy software products and engineering services in the most demanding production and laboratory environments.

## Project Spotlight: Seat Adjuster Track Tester

### Objectives:

Build and deploy sound and vibration end-of-line test systems specific to seat adjuster tracks. Deliver a turnkey solution for control acquisition and signal processing.



Optimize defect detection through the fusion of audio, vibration, and travel data in one platform.



### Solution Benefits:

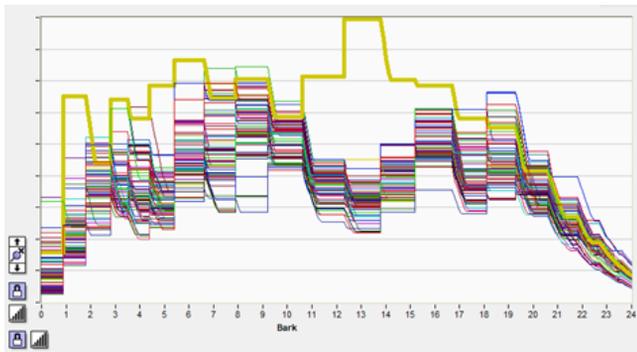
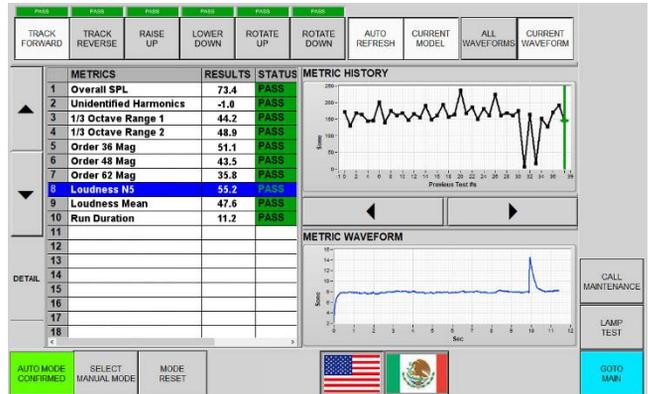
- Combination of control and acquisition for a turnkey solution
- Parallel acquisition and computation for fast cycle time
- Utilization of Signal.X's STAX platform for configurable test sequence, automation, and metric definition
- Automated data archival with Signal.X Trove for metric and limit optimization using large datasets
- Deployment of high-performance NI PXI hardware for flexible and high-speed signal acquisition

To learn more about this and other Signal.X projects, please visit [signalxtech.com/about/portfolio/](https://signalxtech.com/about/portfolio/)

## Technology Highlights:

### Why It's Important

An automotive-powered seat adjuster is one of the first mechanical sounds that a new car buyer hears. It must convey a sense of quality and precision. It is essential that any seat adjuster with the potential to fall short of the customer's expectation is screened on the production line.

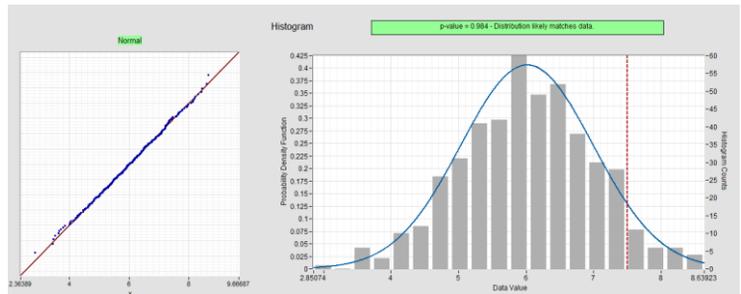


### The Challenge

Traditional audio metrics are based on subjective studies that are abstract and make it difficult to identify physical defects. Signal.X has created unique signal processing that utilizes audio, vibration, and speed data to correlate defects with easily understood production repairs.

### Closing the Loop

Large structured datasets create opportunities for optimizing metric limits by using our toolchain to predict line performance, reduce false failures, and close the loop on the data to improve the process and the product.



This project showcases our ability to realize a vision to fit one customer's circumstance. Let us help you realize yours.

### About Signal.X:

Since 2004, Signal.X has specialized in test & measurement products for noise and vibration (NVH), production and laboratory test automation, functional test design, large data management, and custom application development.