ENSCO is recognized around the world as a leader in the supply of track evaluation systems. ENSCO understands the needs of rail customers and provides production worthy solutions that deliver both safety and economic benefits. Forty years of railway engineering experience and a global footprint ensures that customers will receive the best possible measurement technology and technical support available. ENSCO’s track measurement systems are based on a modular approach and scalable architecture to support a variety of measurement and imaging systems on a track recording vehicle.

ENSCO’s modular track measurement systems are scalable to customer inspection needs and integrate with a centralized reporting management system to maximize the efficiency of track maintenance initiatives.

Centralized Control, Reporting, Analysis, Navigation and Editing
ENSCO’s modular approach employs a network architecture that enables synchronization of all measurement systems to a common location reference. The systems are controlled by a centralized operator interface that collects and evaluates all measurements in real time with integrated onboard review, analysis and reporting capabilities.

Track Geometry and Rail Profile Measurement System
Provides non-contact, inertial measures of all critical track geometry parameters as well as measurement of the cross-sectional shape and orientation of each rail to identify wear and cant.

Real-time notifications of exceptions are provided based on a wide range of user-configurable thresholds. Track grade and low-speed longitudinal profile/alignment measurement options are also available.
Rail Corrugation Measurement System
Highly accurate laser-based measurement system evaluates corrugation over four critical wavelength bands. The system provides rail quality assessments on a section-by-section basis to facilitate rail grinding and replacement planning.

Third Rail Laser Measurement System
Measures third rail height, gage and temperature, and evaluates to customer tolerances for proactive maintenance planning.

Ride Quality and Wheel Impact Measurement System
Quantifies overall passenger ride quality and accurately locates wheel/rail impacts indicative of poor rail surface and sub-grade conditions.

Gage Restraint Measurement System
Patented system safely and accurately measures lateral track strength at survey speeds up to 50 mph. Locates bad ties and weak track, providing critical inputs into track maintenance and tie replacement planning.

The Deployable GRMS is a Product of FRA Research *Federal Railroad Administration, Office of Research and Development

Overhead Wire (Catenary) Measurement System
Non-contact, time-of-flight laser sensors measure the wire position and stagger with respect to the running rails.