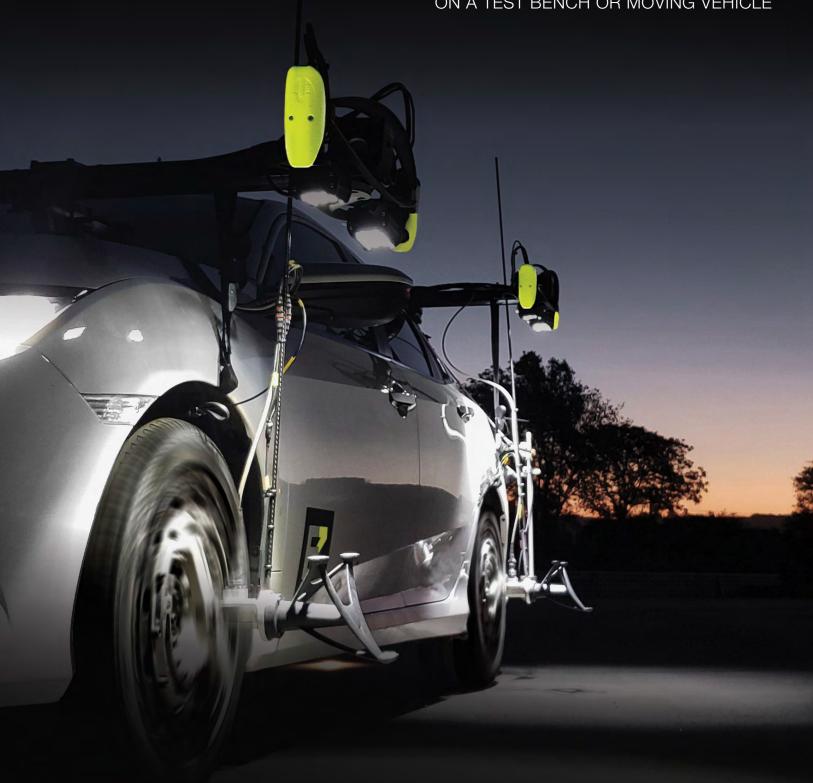# NX EZ**MOTION**

TIRE DYNAMICS

HIGH-PERFORMANCE KINEMATICS AND COMPLIANCE MEASUREMENT SYSTEM BASED ON HIGH-SPEED STEREO VISION TECHNOLOGY FOR ACCURATE MOTION CAPTURE ON A TEST BENCH OR MOVING VEHICLE

EZMOTION
TIRE DYNAMICS

⭐ TECHNOLOGY

- Position and angle measurement
- Unlimited recording time
- Rugged, lightweight solid-state system
- Drive-ready and shock-resistant
- Multiple input/output options
- Expands the capability with analog input/output and additional sensors such as GPS and slip angle

⬛ APPLICATIONS

- Kinematics and Compliance
  - Road Tests
  - Test Rigs
- Wheel Packaging
- Engine Packaging
- Drivability and Handling Dataset Development

➕ FEATURES

- Simple touch screen control
- Step-by-step setup
- Real-time status feedback
- Immediate numerical and graphical reporting
- Template for testing procedures
- Data export in CSV file format

🔧 SPECIFICATIONS

Output	One or Multiple 6D objects XYZ, IJK
Acquisition Speed	Up to 500 Hz
Position Accuracy	0.07 mm (Traceable)
Angular Accuracy	0.013 deg (Function of Spatial Placement)
Measurement Volume	8 mm Lens, 900 x 900 x 500 mm
	12 mm Lens, 800 x 600 x 500 mm
	26 mm Lens, 400 x 200 x 500 mm
Weight	3 kg
Power	12V, 3A
Camera Dimensions	600 x 120 x 90 mm

📢 APPLICATION FRIENDLY

- Small overhang mounted close to the chassis for stability and drivability
- Up to 4 units per controller
- Integrated illumination for all weather and lighting conditions
- Wobble compensation
- Multiple alignment and referencing procedures
- Optimal data processing with merged algorithms to simplify export
- Lens options to adjust system for optimal image volume and accuracy
- Lightweight wheel probe for optimal accuracy and minimal reactive mass
- Lightweight engine probes
- Includes universal mounting kit
- Suction cup or bolted mounting options

👤 SIMULATION

- EZMotion data collected from track and road driving conditions with natural loads can also be collected with multi-post test rigs, allowing a direct comparison of test-rig results to real-world driving conditions, demonstrating a crucial role for EZMotion in the development of drivability and handling.
- EZMotion track data can be used in predictive simulations and enhance the understanding of physical constraints, providing a path to develop future simulation models.

SELP007

EZMETROLOGY

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