GonioPro
Lab Validation System

Key Applications

- Camera, ADAS Camera and LiDAR Optical Alignment and Structural Inspection

- Camera, ADAS Camer and LiDAR End-of-Line Production Testing

- Quality Assurance and Standardized Testing Processes

Overview

GonioPro is a flexible and highly precise test system specifically designed for quality inspection of Cameras, ADAS Cameras and ADAS LiDAR.

The system offers full 3D angular control, allowing users to inspect Camera-, ADAS Camera-, and LiDAR units from any angle for comprehensive analysis of optical alignment, sensor construction and performance.

With high-resolution rotation and tilt mechanisms, GonioPro is built to meet the demanding inspection needs of production and development environments.

The system supports modular expansion, allowing integration with various high-performance measurement tools.

It also features automated data logging and report generation, enabling users to diagnose issues and ensure quality traceability.

Features

- **Full 3D Angle Control with 0.5 micro-degree Accuracy**
  Provides precise and full-range angular positioning, allowing Camera-, ADAS Camera-, and LiDAR units to be viewed from any desired angle for comprehensive inspection of optical alignment and other critical performance metrics.

- **Advanced Measurement Capabilities**
  Handles geometric features such as tilting, rotation, and air gap distances with micron precision.

- **High Load Capacity**
  Supports testing of Camera-, ADAS Camera-, and LiDAR units of various sizes and weights up to 8 kg, providing flexibility to accommodate different models and configurations.

- **Programmable Angle**
  Enables custom, programmable angle sequences for automated standard inspection processes, improving production line testing efficiency.

Software

Customized software for easy measurement, switching and debugging experience:

- **Supports NI Teststand and LabVIEW**
  Ensures seamless integration into automated test workflows for efficient data acquisition and control.

- **Intuitive User Interface**
  with options for complex analysis during R&D and simplified workflows in production.

- **Pass/Fail Analysis**
  Provides instant quality feedback based on preset tolerances, complemented by statistical result analysis for process optimization.

- **Data Logging, Analysis, and Report Generation**
  Integrated with measurement and data logging tools, supporting real-time analysis of alignment and orientation. Automatically generates detailed inspection reports to assist in issue diagnosis, documentation archiving and quality assurance traceability.

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