



## Application Notes: Closed-Loop Durability Testing

### Innovation

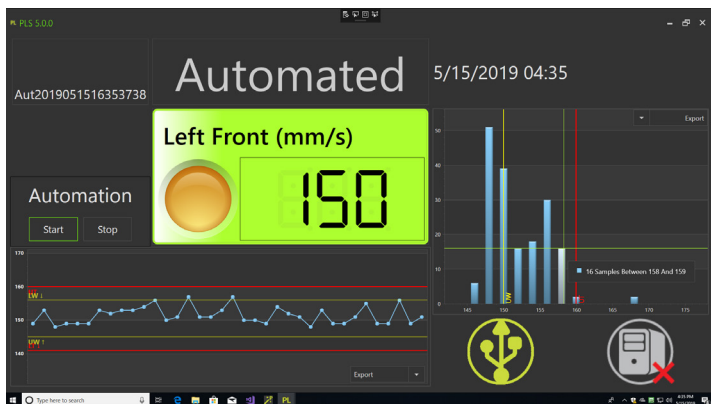
EZSpeed, an industry standard and proven technology already in use in many plants for doing 100% closing efforts inspection is now available for automated testing. The high performance and updated electronics allow for smooth integration in your durability fixtures. Including software interfaces to robot controller for feedback mechanism.

**“Speed measurement for closed-loop, robot-based durability testing.”**



### Application

As many durability rigs are designed to adapt for different test programs. Systems to validate the door function over many thousands of cycles can only be considered valid if the applied impact energy is controlled and if necessary adjusted over the duration of the test. Temperature drift, mechanical wear and robot behavior will all contribute to variation in the test setup, a closed-loop control system guarantees test specifications.



### Technology

A laser-based speed measurement system is capable of accurately measuring the current closing velocity and therefore guarantees a certain impact energy to be absorbed. The core of the system will communicate with a computer over a simple USB connection. The results can be used for a closed-loop feedback system or for a data logger to document the result for the duration of the test.

### Permanent or Quick Mount

A single EZSpeedBox unit can be bolted into the test stand and maintain a solid mount for long term velocity checks of the test object. The device can also be installed using a quick mount so the device can be installed on a fixture in a temporary way for a number of checks before it is removed and placed on another fixture.



### Reporting

The registered velocity values can be plotted or logged in a simple text file together with a timestamp. In a fully integrated setup, data is made available in real time for appropriate action for the robot or automation.

For more details, please visit our **EZSpeedBox** product page at [www.ezmetrology.com](http://www.ezmetrology.com)

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