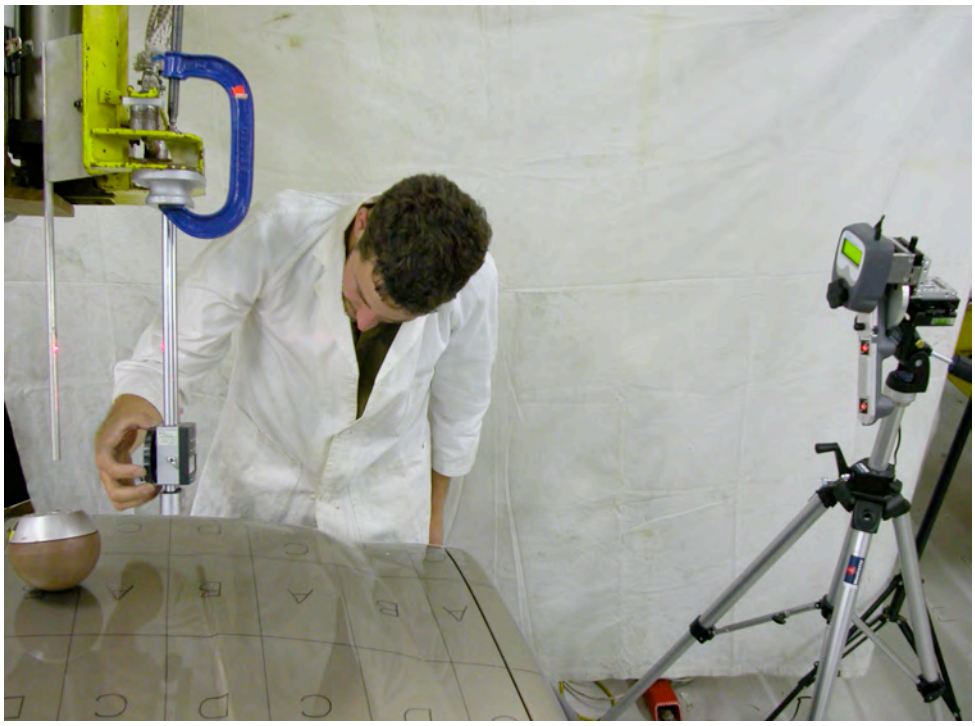
LSMD

Advanced Speed Measurement for Automotive Safety Testing



SIMPLE AND HIGHLY ACCURATE FOR ALL TYPES OF SPEED MEASUREMENT

Introducing the Laser Speed Measurement Device (LSMD) from the Centre for Automotive Safety Research at the University of Adelaide. Specifically designed to satisfy the requirements of pedestrian sub-system impact testing, it is also suitable for any application requiring highly accurate speed measurement: an accuracy of 0.1% is easily achievable.

DEVELOPED AFTER 10 YEARS OF EXPERIENCE IN PEDESTRIAN TESTING

The Centre for Automotive Safety Research has operated its own pedestrian impact test lab for 10 years conducting research on pedestrian safety and providing testing services for government, Australian NCAP and industry. This experience is built in to the LSMD.

PORTABLE OR FIXED

The system can be used as part of a portable setup using tripods or permanently fixed on an X-Z gantry (not supplied). The units feature micrometer adjustment in the X-Z plane and micrometer angular adjustment of each laser for ease of alignment.

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Laser Speed Measurement Device

SIMPLE ALIGNMENT

The laser arm can be set at any angle in a 200˚ arc. Because the lasers can be interrupted in either order, speeds can be measured in any trajectory. Detents locate common angles used in EEVC/EuroNCAP pedestrian headform tests with fine angle adjustment for final positioning.

REMOTE CONTROL SET-UP

Arming and other setup functions are via an IR remote control, maintaining positional integrity through setup and arming. Alternatively, control is possible via an integrated RS232 port (on request).

NEVER LOSE A MEASUREMENT

The LSMD incorporates a power-fail-safe 8 test memory. With added TTL outputs from each sensor, timing signals can be backed up on your regular data acquisition system.

One solution for all your speed measurement needs - measure speed in any trajectory

Highly accurate

Easy to mount

Easy to align

Hands off set up

Never lose a measurement result

FOR MORE INFORMATION

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SPECIFICATIONS

MECHANICAL	
Operating angle range	200˚ (effectively 360˚)
Laser distance	100 mm
Fine adjustment range (X-Z)	0-25 mm
Maximum recommended operating distance	Units may be separated by more than 15 m
ELECTRONIC	
Timer	8 MHz with an accuracy of 20 ppm
Operating voltage	9 VDC, 500 mA
Lasers	I mW, 650 nm, low divergence
PERFORMANCE	
Timer accuracy	250 ns
Accuracy	<0.1% in most applications
High intensity lighting error	Less than measurement error. Tested to in excess of 15 EV
USER INTERFACE	
Speed display	m/s, km/h, mph, time interval in ms
Memory	Last 8 measurements and time that the measurement was made
Laser angle display	Continuously displayed on LCD
Armed status	Displayed on LCD and by front panel LED
Laser detector status	Front panel LED

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