



# LaserLynx Distance Measurement

Datasheet

## Electronic Distance Measurement

LaserLynx is a powerful laser-based measuring device linked by state-of-the-art Lynx software to a NetBook, laptop or hand-held computer. The resulting product is in a class by itself. Never has distance measurement in a track and field environment been so accurate, or so easy, or so affordable.



In addition, because all the measurements are computer generated, information can be shared effortlessly with meet management databases, scoreboards, infield displays, databases and with CIS for announcers.

**Fast** – 15-minute equipment setup

**Simple** – One touch measurement in Metric and Imperial Units

**Accurate** – Accurate to  $\pm 2\text{mm}$  &  $\pm 2$  angular seconds - Exceeds all required standards\*

**Portable** – Rechargeable batteries with up to 60 hours on a single charge

**Powerful** – Links to scoreboards and databases



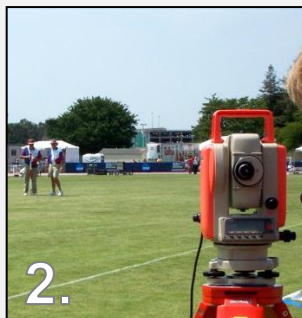
\*2008 IAAF Facilities Manual P: 203. **Section 5.2.2.1 Distance for Throws:** *The accuracy of the measured distance is  $\pm 0.005\text{m}$  and of the measured angle  $\pm 10$  angular seconds, which is equivalent to an average error for thrown distances of  $\pm 0.005\text{m}$ .*

## Operational Simplicity – Measures at the Touch of a Button

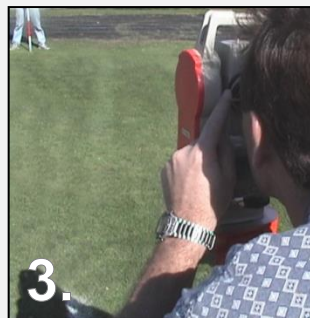
To measure a throw, all the LaserLynx operator needs to do is have sight on the LaserLynx prism, held at the point of impact by the Measurement Official, and tap the **Acquire** button on the FieldLynx unit. Instantly the athlete's Performance is computed and displayed on the screen.



1. Prior to the event, the LaserLynx unit is set up adjacent to the throwing area and leveled.



2. After each throw, the Official marking the throw places the LaserLynx prism at the point of impact closest to the throwing circle/arc.



3. Using the built-in telescopic sight, the LaserLynx operator aligns the unit on the prism held by the marking official.



4. When the LaserLynx prism is at the center of the cross-hairs, the operator taps the **acquire** button on the FieldLynx unit and distance is calculated.

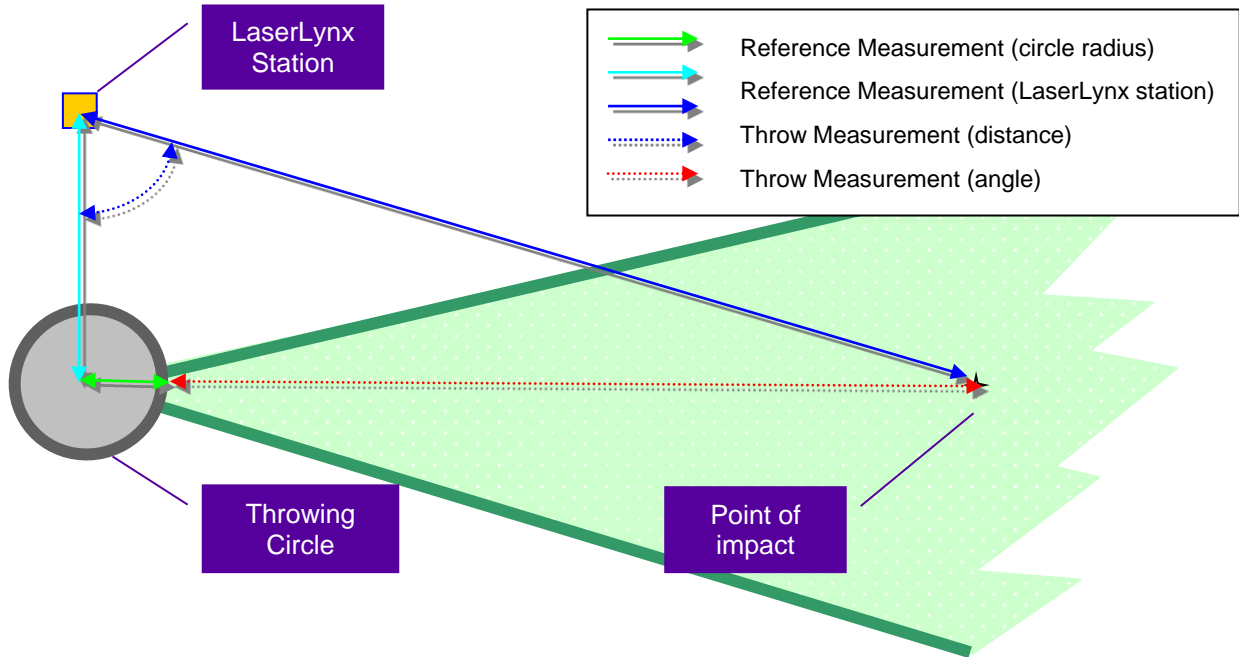


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## How it Works

Geometry has established that given an accurate measurement of two sides of a triangle, and an accurate measurement of the angle between these two known sides, it is possible to compute the length of the third side. By incorporating the radius of the throwing arc or throwing circle into the calculations that it does, LaserLynx is able to accurately measure an athlete's performance without venturing into the throwing area to make the measurement. An athlete's performance is computed as shown below in the diagram by using data that was entered prior to the start of the competition – the LaserLynx Station Reference Measurement (shown below), and the radius of the throwing circle.



Specifications	LaserLynx Pro
Telescope Length	150mm
Object Lens Diameter	45mm (EDM: 50mm)
Distance Accuracy	$\pm(2\text{mm} + 2\text{ppm} \times D)$ m.s.e.
Calculation Accuracy	$\pm 2$ ppm
Angle Accuracy	2 sec.
Distance Range	1 Prism: 2,000m   3 prism: 2,700m
Measuring Time	Fine Mode – 1.0mm: 1.2sec   0.2mm: 2.8sec Coarse Mode – 0.7sec   Tracking Mode – 0.4sec
Ambient Temperature Range	-20 to +50 Celsius
Battery Life	Angle & Distance Measurement: 14h Angle Measurement only: 60h
Eyepiece Magnifications	30x
Keyboard & Display	24-Key Numeric Keypad   2- Sided Dot Matrix Graphic LCD
Internal Data Memory	24,000 pts
Environment Protection	IP54