

LaserLynx

Quick Start Guide

Verify that your LaserLynx system contains the components pictured below.
If not, or if you need additional help, please call: USA 978.556.9780 or email support@finishlynx.com

Item	Description	ID
	Tripod	TS50F
	Target pole	PC21
	Prismatic reflector	MPU1
	Serial Cable	S50660

Item	Description	ID
	USB-Serial adapter	USB-Serial1
	Sighting unit	6L209
	Battery Charger	N/A
	Battery	S62005

Items not included

Computer (laptop or tablet recommended) running FieldLynx on Microsoft Windows. Your computer needs: one available serial port or USB port with a USB-Serial adapter.

Introduction

The following guide will walk you through the installation, setup and operations of LaserLynx. If at any point you need additional help, please contact Tech Support: support@finishlynx.com.

Step 1 Installation

The LaserLynx plug-in should be installed on a computer with the latest version of FieldLynx or FieldLynx Lite.

- Locate the LaserLynx installer (FLLaser #.##.exe) from the Lynx USB drive.
- Right-click on the installer and click **Run as Administrator**.
- Follow the prompts to complete the install.



Step 2 Configure the LaserLynx Options

- a. Open the FieldLynx or FieldLynx Lite Program and navigate to **Options / Preferences**.
- b. Click the **LaserLynx** tab.
 - i. Click the **Laser:** drop-down and select the model being used.
 - ii. Click the **Serial:** drop-down and select the **COM#** of the USB-Serial adapter used for communication between the FieldLynx Lite tablet and the laser.
 - iii. Check that the serial protocol parameters match the laser configuration. The Mato MTS-602R default is **9600-8-None-1** and Flow Control to **None**.
 - iv. Click **Ok**.

The screenshot shows the 'Options' dialog box with the 'LaserLynx' tab selected. The 'Laser' dropdown is set to 'Mato MTS-602R'. The 'Measure' dropdown is set to 'Triangular'. The 'Serial' dropdown is set to 'COM22'. The 'Baud' dropdown is set to '9600'. The 'Data Bits' dropdown is set to '8'. The 'Parity' dropdown is set to 'None'. The 'Stop Bits' dropdown is set to '1'. The 'Flow Control' dropdown is set to 'None'. There is a checked checkbox for 'Prompt the user to select a jump board'. The 'Data Transfer Timer (ms)' is set to '50'. At the bottom are 'OK' and 'Cancel' buttons.

NOTE: Close and restart FieldLynx Lite to initialize the LaserLynx setup.

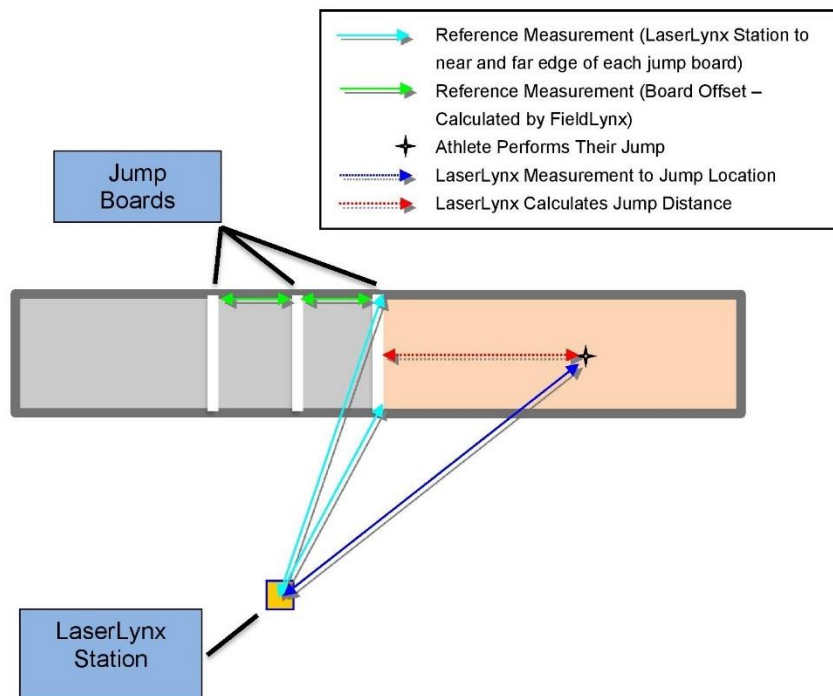
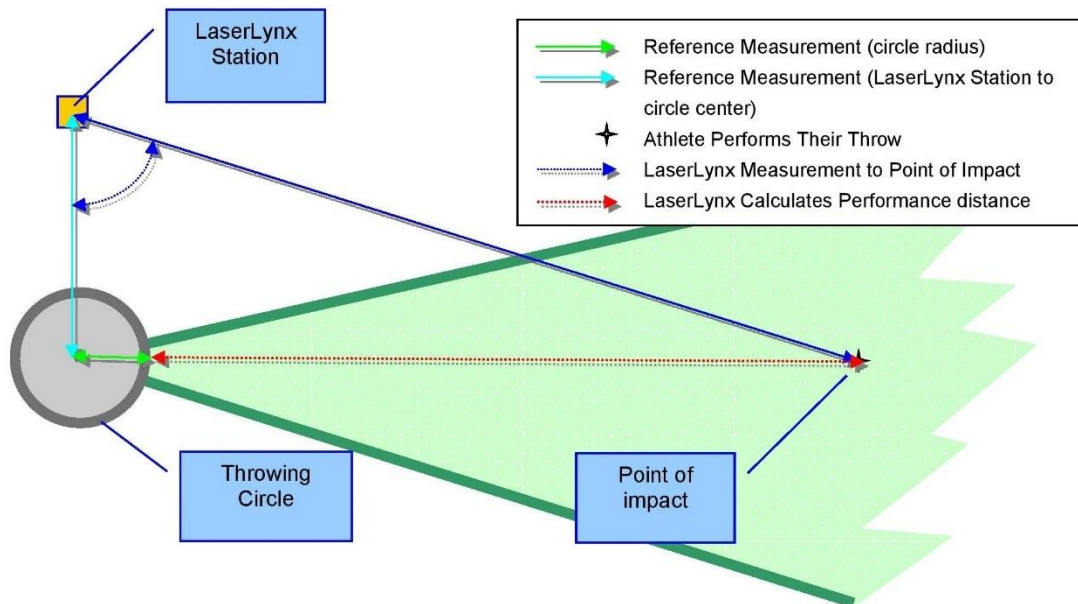


LaserLynx Setup & Operations

Step 1 Choose LaserLynx Station Location

When choosing the location for the LaserLynx station, consider the following:

- The LaserLynx station should have a clear line of sight to the center of the throwing circle or jump boards.
- The LaserLynx station should have a clear line of sight of the landing sector or pit.
- The LaserLynx station should be in a safe location, clear of potential landing area of all implements.
- The LaserLynx station should be near (<3m) the FieldLynx computer, but out of the way of officials.





Step 2 Set up the tripod

- Open the legs of the tripod equal width apart.
- Flip the levers on the tripod legs and extend them so that the top of the tripod is at about chest height.
- Step back and look at the tripod. Then, adjust the legs so that the tripod tabletop appears as level as possible. You will make finer adjustments to level the tripod later.
- If you are on grass, push the legs of the tripod into the ground by stepping on the foot rests at the base of the tripod.

TIP: Use a standard level on the tripod tabletop to check that it is level.

Step 3 Connect the sighting unit

- Slide the sighting unit around on the tripod tabletop until the threaded hole lines up with the securing screw and the handle beneath the tripod tabletop.
- Turn the handle to secure the sighting unit to the tripod tabletop.

- A. Site
- B. Eyepiece
- C. Fine adjustment knob – tilt
- D. Tilt release knob
- E. Fine adjustment knob – rotation
- F. Rotation release knob
- G. Zero-set button (optional)
- H. Precision level adjusters
- I. Round level (not shown)
- J. Cylindrical level(s)
- K. Serial port



Sighting Unit



Step 4 Level the tripod

- Turn the sighting unit on the tripod tabletop until the laser aperture facing the throwing circle or the take-off board. The laser aperture is located on the opposite side of the laser from the eyepiece.
- Turn the precision level adjusters (labeled "h" in the sighting unit diagram) until the bubble is centered in the middle of the round level.
- Locate the additional cylindrical levels on the sighting unit. Continue to move the precision level adjusters until the bubble in all of the cylindrical levels is also centered.

NOTE: When you turn the sighting unit toward the landing sector, the bubbles in the levels should remain centered.

Step 5 Connect the laser to the computer

- Connect the serial cable to the sighting unit. Remove the black rubber stopper from the port below the laser aperture and connect the cable to the port.
- Connect the serial cable to the FieldLynx computer's serial port or USB-Serial adapter. Use the extension cable provided if needed.

Step 6 Set up the target pole

- Screw the prismatic reflector into the target pole, turning until secure.
- Flip the target pole so that the prismatic reflector is touching the ground.

If you are measuring a throwing event:

- Ask someone acting as a marker to set the target pole in the center of the throwing circle.
- Have the marker face the prismatic reflector toward the laser aperture on the sighting unit while holding the target pole as upright and as still as possible.

If you are measuring a horizontal jumping event:

- Ask someone acting as a marker to set the target pole on the Near corner of the take-off board. This is the corner that is closest to the laser on the edge of the board closest to the pit.
- Have the marker face the prismatic reflector toward the laser aperture on the sighting unit while holding the target pole as upright and as still as possible.

Step 7 Use the site to find the prismatic reflector

- Turn the rotation release knob counter-clockwise so that the sighting unit moves freely on its base.
- Turn the tilt-release knob counter-clockwise to unlock it.
- Look through the site on top of the sighting unit and rotate the sighting unit until you can see the target pole while looking through the site. Once the target pole is in view, turn the rotation release knob clockwise to lock it.

Step 8 Focus on the prismatic reflector

- Now that you have the prismatic reflector in view using the site, look through the eyepiece on the sighting unit.
- Turn the large, fine adjustment knobs beneath the smaller rotation and tilt release knobs until the prism is centered when looking through the lens.
- Notice that the eyepiece has two adjustment rings. Turn the smaller adjustment ring until you see crosshairs when looking through the lens.
- Turn the larger adjustment ring on the eyepiece to focus the prism until the image is crisp. The crosshairs on the lens should center on the middle of the prism.



Step 9 Set the control measurement

FieldLynx

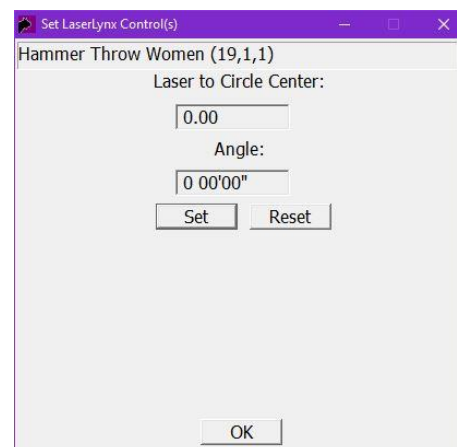
- Select the desired event by clicking the event name, round and flight from the Main Window.
 - A new window will open with the Athlete List.
- Click the Event Setup icon

FieldLynx Lite

- Select the **Event:** from the drop-down.
- Click the **Set up LaserLynx...** button on the Main Window.

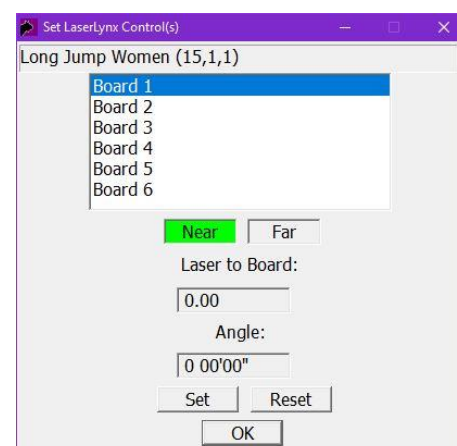
Throwing Events

- Confirm the **Circle Radius:** and selected event are correct.
 - (optional) Click the circle radius box to edit if needed.
- Click the **Set Control(s)** button.
- Site and focus on the prismatic reflector.
- Click **Set**.
- Wait for the **Laser to Circle Center:** to be calculated.
- Click **Ok**.



Horizontal Jumping Events

- Click the **Set Control(s)** button.
- Click **Set** to measure the **Near** corner of **Board 1**.
- Wait for the **Laser to Board:** to be calculated.
- Ask the marker to move the target pole to the **Far** corner of **Board 1**.
- Site and focus on the prismatic reflector.
- Click the **Far** button to highlight it green.
- Click **Set** to measure the **Far** corner of **Board 1**.
- Wait for the **Laser to Board:** to be calculated.
- Click **Ok**.



NOTE: If multiple jump boards are used, select the next **Board** used (Board 2), ask the marker to move the target pole anywhere on the edge of the board closest to the pit and click **Set**. Repeat for all boards in use (max = 6).

Step 10 Record a Test measurement

- Ask the marker to move the target pole to a known position in the landing sector with a known distance (measured with a steel tape).
- Site and focus on the prismatic reflector.
- Click the **Test Measurement** button.
- Validate that the calculated distance matches the distance measured with a steel tap.
- Click **Ok**.
- Continue with **Event Setup** as per the FieldLynx QSG.



Step 11 Record Event measurements

- a. Select the competitor throwing or jumping.
- b. After the competitor throws or jumps, ask the marker to move the target pole to the mark.
- c. Site and focus the laser on the prismatic reflector.
- d. Click .
- e. Wait for the distance measurement to appear. This is the distance of the competitor's throw or jump.
- f. Click  to return to the athlete list.
- g. Repeat for all attempts.