

Setup Instructions:

1) Connecting the Laser

- a. Disto Settings – metric 0.00m
 - i. Press menu twice
 - ii. Select Bluetooth w/ gears icon
 1. KEYBOARD MODE – ON
 2. BT NAVIGATION – OFF
 3. DECIMAL SEPARATOR – POINT
 4. UNIT TRANSFER – OFF
 5. TERMINATION AFTER – TAB
 6. AUTO SEND – ON
 - iii. Make sure the DISTANCE OFFSET () is set to +00.00m.
 - iv. Make sure Bluetooth icon does not have \ through it.

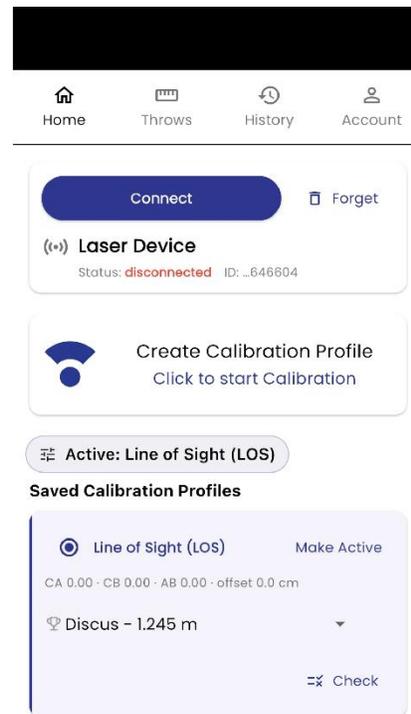
- b. Turn on VS Throws App (**ANDROID DEVICES SEE “C”**)
 - i. Select “Find Laser” at top of app
 - ii. Select the “DISTO D5 ...” By **pressing** blue “Select” button.
 - iii. **Press** blue “Connect” Button.
 1. Disto should beep and show a Bluetooth icon next to a computer screen on the Disto screen.
 - iv. A new option will now have appeared on the app “Create Calibration Profile” “Click to start Calibration”

c. ANDROID DEVICES

- i. **Do not press blue “Connect” button.**
- ii. Use drop down menu to open Bluetooth settings.
- iii. Connect and pair Disto through phone settings and then return to app.

2) Two Systems in 1 box:

- a. Line of Sight (LOS)
 - i. Is the traditional laser system of putting the tripod and laser in the center of the ring and shooting a reflector on a monopod in the sector.



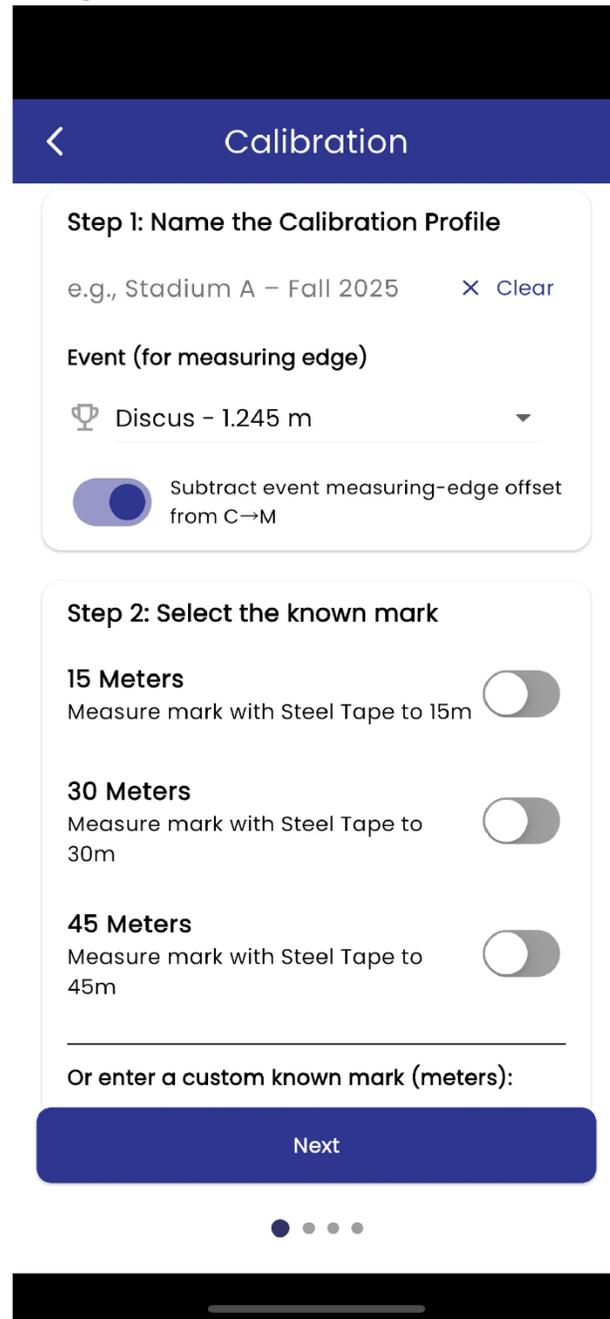
- b. Triangulations
 - i. Is setting the 2 tripods and reflectors outside the sector line, shooting both in sequence, and using the app to calculate the distance to the edge of the ring.
- c. The app will calculate the offset from center of the ring to the edge with both systems. It just needs to be told which event is being measured.

3) **Step 1: Name the Calibration Profile (not for Line of Sight)**

- a. Press “e.g., Stadium A – Fall 2025” to name your profile
 - i. A built-in keyboard will appear
 - ii. Name your profile based on the event you are measuring (keep it simple) and press the check mark to the right of the entry.
- b. Press the drop-down menu under “Event (for measuring edge)”
 - i. Select the event you are measuring
 1. Discus – 1.245m
 2. Shot, Hammer, Weight - 1.067m
 3. Javelin – 8m
 - ii. Make sure the blue slide is set to the right “Subtract event measuring-edge offset from C – M”

4) **Step 2: Select the known mark**

- a. **This part is important.** Please select the furthest mark that can safely be set as your known mark inside of the sector and/or landing area. This means that it is unreasonable to set the know mark to 30m(99ft) for the shot put. But also, it is not advisable to set the discus/javelin mark to 15m. Best practice is to set the mark further away for higher accuracy.



- b. When placing the known mark, have 1 person hold the 0 mark in the center of the ring and walk the tape measure out along the sector line to the “known mark” distance. Place a more permanent marker down in the landing area to help verify calibration (nail with colored whiskers).
- c. **If you are alone and need to place a known mark.** Place a nail or stake to hold the loop end of the tape measure along the sector line near an estimate of the “known mark”. Pull the reel side of the tape measure through the center of the ring and record the measurement at the center of the ring.
 - i. Enter the recorded “center” mark down at the bottom of the app where it says “Known mark (m)”
 - ii. This is to serve as a custom mark for the time when you are alone setting up the calibration.

5) **Set up Tripod and Reflectors**

- a. Screw the quick-connect heads on the tripods.
- b. Mount the reflectors with the quick-connects on to the tripods.
- c. Extend the topmost leg extender on each leg of the tripod (do not do all four) and open the tripod legs apart.
- d. Screw the tilt head on the top of the monopod.
- e. Mount the laser on top of the tilt head with the little red screw.

6) **Placing reflectors**

- a. **Very important**
 - i. Place each reflector outside of the sector, on opposite sides of the sector, with a clear line of sight to the center of the ring.
 - ii. This is called the **Known Triangle**.
 - iii. You cannot measure inside of the **Known Triangle**.
 - iv. When you place your reflectors, they must be closer to the ring than the shortest distance you anticipate measuring.
 - v. Angle the reflectors so that the curve is facing most of the landing area and the flat part back is perpendicular to the opposing reflector.
 - vi. This will be important next.

7) **Step 3: From Center of Ring**

- a. Place the Monopod (with mounted laser) in the center of the ring.
- b. Press “Left” and shoot the laser at the topmost part of the flat back reflection zone of the reflector along the left sector.

c. Then **press** “Right” and repeat.

8) **Step 4: From A or B – Place laser on top of reflector for this**

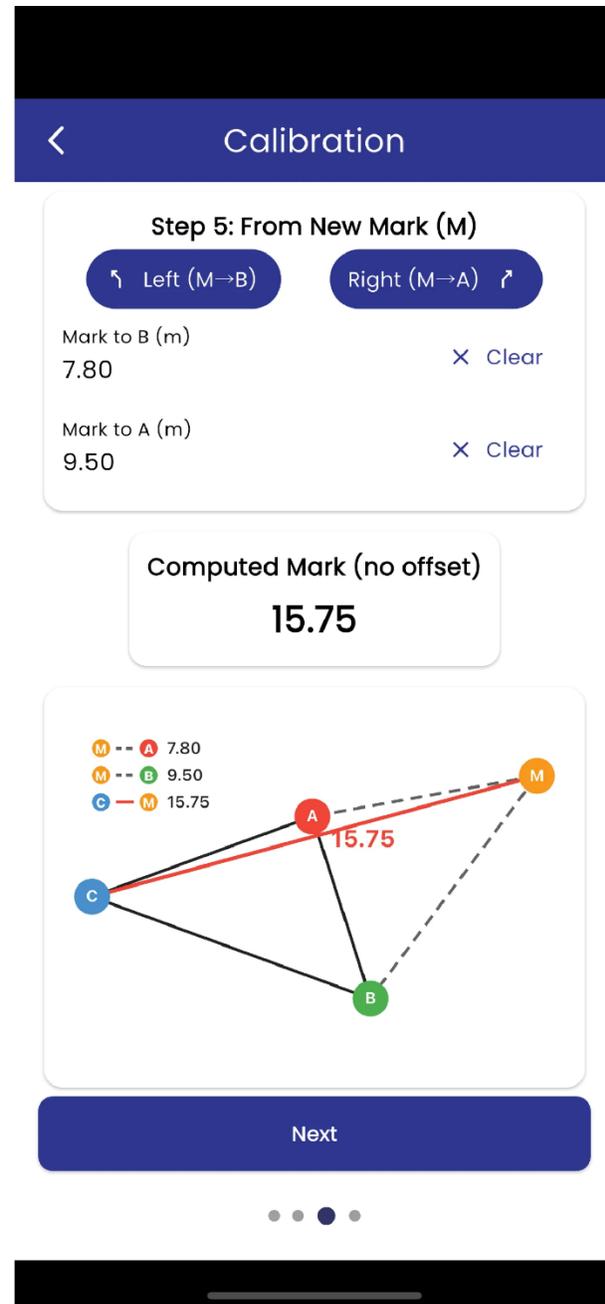
- Press** “between Reflectors”
- Unmount the laser and place the butt of the laser flush with the flat back of the reflector.
- Aim at the center line and topmost part of the curve of the opposing reflector and shoot.
- Observe the triangle diagram at the bottom to verify the results.

9) **Step 5: From New Mark (M)**

- Go out to the “Known Mark” and place the monopod on top.
- Press** the “Left (M – B)” button and shoot the left reflector.
- Press** the “Right (M – A)” button and shoot the right reflector.
- Observe the triangle diagram at the bottom to verify the results are close.
- If the diagram is way off, then you might have missed one of the shots to the reflector. See with side of the triangle is off and reshoot.
- Press** Next.

10) **Comparison**

- This part is to calibrate the difference in height between the reflectors and the monopod laser that will occur as different people shoot the laser from different heights based on their preferences.
- Use the blue buttons (-0.5, -1cm, +0.5, +1cm)** to make minute adjustments to the vector. That is the **RED** number inside the triangle diagram at the bottom of the app. Make sure the vector mark is as close to the KNOWN MARK as possible **without going over**.
- If you end up with the app suggesting more than +/- 5cm Offset, there was a problem and you will need to recalibrate.



- d. Once you have set your “Offset” and the vector mark is at the KNOWN MARK, **press** “Save Calibration Profile”
- e. You will be sent back to the home page, but your new calibration profile will be there and already selected. Now you can start measuring throws.

11) Throws Tab

- a. **Press** “Save to History” to clear any previous results.
- b. Place monopod on desired mark.
- c. Shoot the left reflector. (the cursor will automatically jump to the right, after recording)
- d. Shoot the right reflector.
- e. The mark will appear at the center of the app with metric and imperial. This is measuring from the edge of the ring.
- f. If you press the “m → ft” to change the results back and forth between imperial and metric.
- g. The vector mark will appear in the diagram at the bottom of the app.

