



DT LaserAlign Calibration Guide

Calibration of the DT LaserAlign is a simple test to confirm that as the orientation of the LaserAlign moves around a central axis, the laser is square to the capture surface and does not deviate in any direction.

Tools Required:

- 2.5mm allen wrench

Testing Calibration:

1. Position the LaserAlign on the working surface so the laser is centered to the lens.
2. Mark the position of the LaserAlign so the LaserAlign returns to the same position while the orientation rotates.
3. Cover the lens cap with tape to mark the position of the laser. For greatest accuracy, raise the camera to its maximum height.
4. With the LaserAlign on, mark the placement of the laser on the lens cap. Rotate the LaserAlign to each side and mark the placement of the laser each time.
5. Examine the spread of the laser:
 - *If all three marks are in the same position, the device is calibrated. The LaserAlign is square to the capture surface and the orientation of the LaserAlign does not affect the position of the laser.*
 - *If the marks do not match, follow the below steps to calibrate the LaserAlign.*

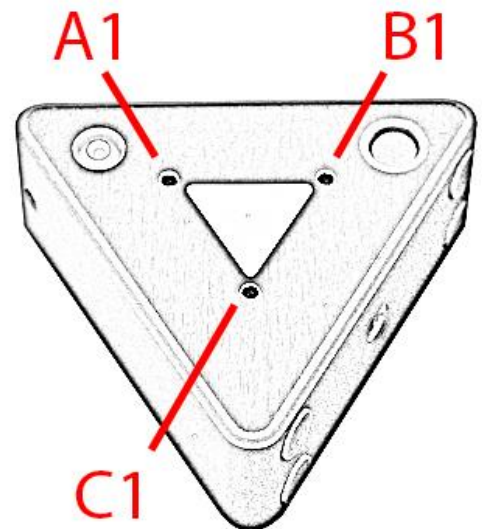
Calibrating the Laser:

The surface of the DT LaserAlign has three recessed screws (A1, B1, C1).

Rotating the wrench clockwise adjusts the angle towards that screw.

Rotating the wrench counterclockwise angles the laser towards the center of the LaserAlign.

Once adjusted, retest calibration until all three sides align.





Aligning the Camera to the Working Surface with the LaserAlign

Collimating a camera to its working surface is necessary to achieve even focus fielding and maximum resolution. The collimation process is similar to that of calibrating the LaserAlign but requires a reflection from the perspective of the lens to assess the angle of the camera to the surface.

Testing Camera & Surface Collimation with the LaserAlign:

1. Position the LaserAlign on the working surface so the laser is centered to the lens.
 2. Mark the position of the LaserAlign so the LaserAlign returns to the same position while the orientation rotates.
 3. Place adhesive tape to the inside of a filter to create a reflective surface for the LaserAlign to reflect off. For greatest accuracy, raise the camera to its maximum height.
 4. With the LaserAlign on, the point of the laser should reflect off the masked off filter and land on the LaserAlign.
- If the laser pointer falls back on the opening of the LaserAlign, the camera is square to the working surface and the bench is collimated.
 - If the laser point does not fall back to the center of the LaserAlign, the camera is not collimated. Refer to the Advanced Leveling Head user guide.



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Sample setup:

