

# Compass DOP Calibration

Before using with Galahad Compass, a DOP should be calibrated.

In this article:
<div><div>1</div><div><a href="#">Preparation</a></div></div> <div><div>2</div><div><a href="#">Calibration</a></div></div> <div><div>3</div><div><a href="#">DOP Calibration Data</a></div></div> <div><div>4</div><div><a href="#">DOP Ellipse</a></div></div>

## Preparation

To perform DOP calibration, first, calibrate Compass as described at [Compass Workflow](#) page.

Switch to Compass mode.

Disable automatic slope direction detection (switch off "Auto"), press "Clear" to enable zero position detection.

## Calibration

[2018-04-04\\_11-32-54.mp4](#) - DOP calibration

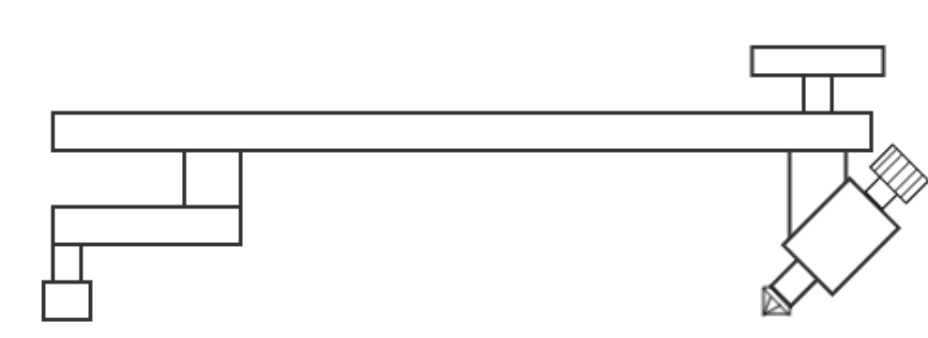
Repeat the following sequence for each DOP:

Put on a Compass a DOP with a stone, with the recently polished facet.

Enter distinguished DOP name, e.g. "DOP1" or "DOP2" etc. and press "+" button.

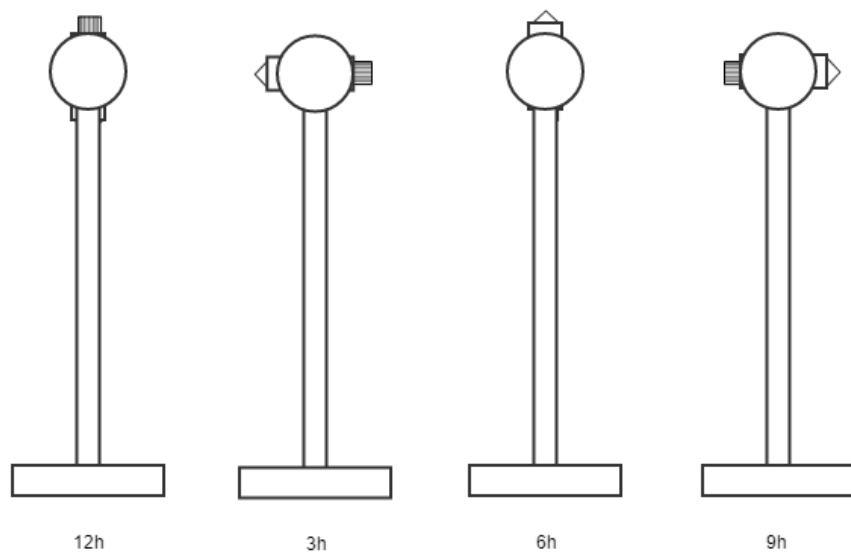
Set zero position by pressing "Set DOP 0+" button.

Rotate vertical DOP axis to position "12h" (12 hours):



*Position "12h", view from the side*

We need to record four different positions, where position "12h" is when stone holder aiming at 12 hours, each next positions angle is measured clockwise:



*Positions "12h", "3h", "6h", "9h", view from the top*

Move DOP to each position and press "><" button against the corresponding cell:

Polishing

DOP Calibration

DOP\_3

+

×

12h	0.27°	13°	↔
3h	0.12°	-26°	↔
6h	0.08°	144°	↔
9h	0.20°	62°	↔

0

Set zero to center

center: (0.10,0.06)

Da: 0.23°, Db: 0.32°

max. error: 0.27°

No check points collected

Add 0 check point

Remove last 0 check point

Clear all 0 check points

Save to...

Load from...

☐ Add

Save results (Save to.. button) and send us obtained the file. Also, send us config.xml.

DOP Calibration Data

"Add DOP 0+" button - for adding reference zero position

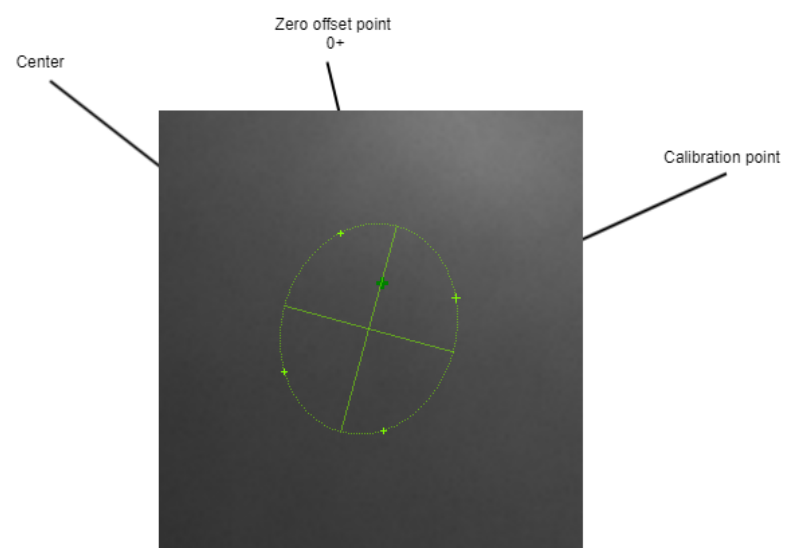
"Remove last 0+" button - removing last reference zero position

"Reset 0+" button - clearing 0+ history

Gliffy Macro Error

You do not have permission to view this diagram.

DOP Ellipse



DOP calibration data is built by 4 points, obtained at different angles. When all points collected, there will be a calibration ellipse drawn on the image. It has 4 points marked with crosses, the bigger cross is at "6h" position. Also there will be a dark-green cross, which marks average zero offset (0+). Ellipse parameters are shown in the text box: center coordinates, main diameters values, and the maximum deviation of the current zero offset from ellipse points.

You can always change current zero offset to one of these points: ellipse center and zero offset (0+) by pressing the corresponding button in the DOP calibration area: