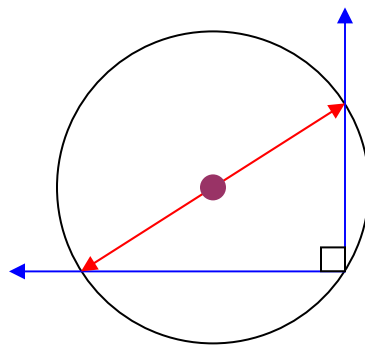




## Center of Circle Error

**“I’m trying to accomplish the Center of Circle function but keep getting an error message”**

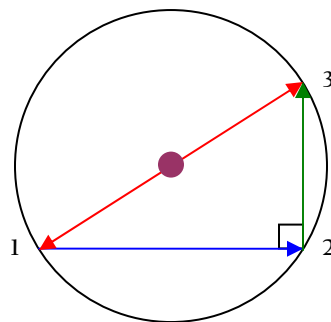
In order to explain the center of circle function, it’s probably best to start with the principle of how it’s supposed to work. The concept is thus: If you draw a 90 degree angle inside a circle with the vertex of the angle intersecting the arc of the circle, then the midpoint of a line drawn between the two points where the two rays that define the angle intersect the circle, represents the exact center of the circle. Okay, let’s take a look at a graphic image of what we’re trying to do:



In other words, we have a 90 degree angle in blue, and there are two points defined where the sides of the angle intersect the circle as the “rays” defining the angle, pass from the inside to the outside of the circle. If we then draw a straight line (in red), the midpoint of the line will be the center of the circle. The important point to understand, is that the angle between the lines must be 90 degrees, and the lines must be perfectly straight. When using our DRO to define these points the rule to remember is this:

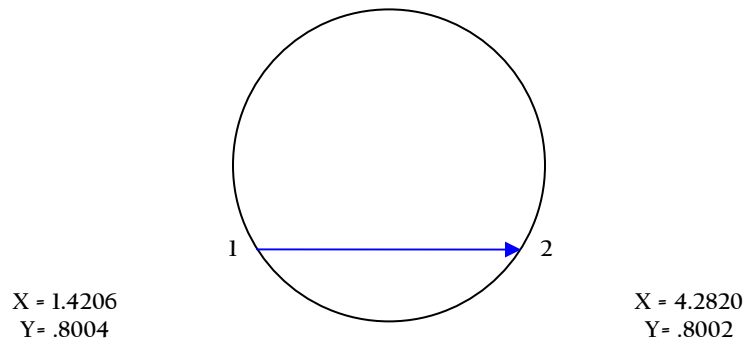
**You must always only move in only ONE axis at a time when moving between points.**

Let’s see how this correlates with our DRO:



The first step in performing the center of circle function is to define point 1. Not much issue there. But when you move from point 1 to point 2 (blue arrow), it’s essential to only move in the X axis,

not the Y axis. It's a very good technique, when you define point 1, to write down the values shown on your DRO. So when you move over to point 2 (but immediately before defining point 2), compare the values shown on the DRO to what the values you wrote down for point 1. **ONLY** one axis value should have changed (in this case the X axis value). If both values changed, then nudge the "offending" axis (in this case the Y axis) back to the original value, and then define point 2. The same thing holds true from your move from point 2 to point 3 (green arrow) – only the Y axis value should change. If the X axis value is different as you reach point 3, nudge it back before setting point 3. Let's take a more detailed look:



In the above example, note the Y axis value was .8004 when I defined point 1. After the move to point 2, both the X and Y axis values changed. This would cause an error, because I **must always make sure to only move in only one axis at a time when moving between points**. Of course, we expect the X axis value to change when moving from point 1 to point 2, but note the slight change in the Y axis value. The fix, if this happens, is to first "nudge" the table a bit so the display reads the original Y axis value of .8004, before defining point 2. Of course, the same holds true when moving from point 2 to point 3. Using the example above, immediately before defining point 3, we would want to ensure the X axis value of 4.2820 remained the same.

Hope that helps and best of luck, but most of all, enjoy your new DRO kit!

***DRO PROS***