iGuide Needle Guidance
Please refer to manual for complete system capability

1. A 3D volume has been loaded or acquired into InSpace tab.
2. NOTE: Fusion can be performed and this volume can be loaded into InSpace
3. From the XRAY subtask card, select the iGuide Needle Guidance icon,

4. STEP 1 – Define Path

- Select TARGET. This icon will already automatically be highlighted when the Needle Guidance icon is selected. You may use any of the MPR views or the VRT to select your target. Left click to select target. A green circle will appear at the target point.

- Select ENTRY POINT. This icon will automatically be highlighted after the Target Point has been selected. You may use any of the MPR views or the VRT to select your entry point. Left click to select entry point. A green cross will appear at the entry point.

- When Target and Entry Points are selected, the needle path is displayed as a green line. The length of the path is defined in centimeters. Both points can be moved by left clicking and dragging into different positions.
5. **STEP 2 – Check Views**

- **Upper Left** = Progression View 1 = orthogonal RAO/LAO view to Bull’s Eye
- **Lower Left** = Progression View 2 = same RAO/LAO as Bull’s Eye but now with maximum CRAN/CAUD angle of 30 degrees
- **Upper Right** = Bull’s Eye View
- **Lower Right** = Textual information regarding the planned path

6. **STEP 3 – Progress Needle**

- Activate stand movement to reach Bull’s Eye View
- Adjust table until overlaid graphics are aligned
- Check patient position by performing an overlay
- Align needle to Bull’s Eye View
- Use Progression Views to check needle direction
- Decide if control scan is needed
• The automatic drive to Bull’s Eye icon is preselected. At this point, activate stand movement to drive system into position. Graphics are displayed on the Live monitor. Once position is reached, it is now ready to align the graphics so the ROI/Target is in isocenter. This is achieved by changing table height and/or longitudinal or lateral table position.

![Diagram showing Bull's Eye icon and alignment process.](image)

• Once system is in correct alignment, needle can now be placed. This can be done utilizing the laser light or under fluoroscopy. Advance needle in the Bull’s Eye View and then proceed to Progression Views. The graphics will update with system movement and fluoroscopy.

• 3D Overlay (iPilot Dynamic) is now also activated.

Example of Needle placement under fluoroscopy in Bull’s Eye View
Example of Progression View 1 with distance graphics

Example of Progression View 2 with distance graphics

- Continue placement of needle, following graphic guides and utilizing Bull’s Eye and Progression Views, until target point is reached. Large distance markers equal 1cm and small distance markers equal 0.5cm.

**Additional Information:**
*CLOSING* exam will close Needle Guidance and all path planning will be lost and additional 3D acquisitions will need to be performed and all steps repeated. Use the **SUSPEND** button to put Needle Guidance on hold. When you are ready to continue, click on the Needle Guidance icon in the X-ray Subtask card.