NavLive Scanner

USER GUIDE & BEST PRACTICES

How to capture clean, accurate, aligned scans with NavLive

The NavLive Radius scanner is easy to use out of the box, but following these best practices will help you capture cleaner scans, improve alignment, and keep the risk of drift to a minimum.

◨ NavLive

Scan to read this guide in full

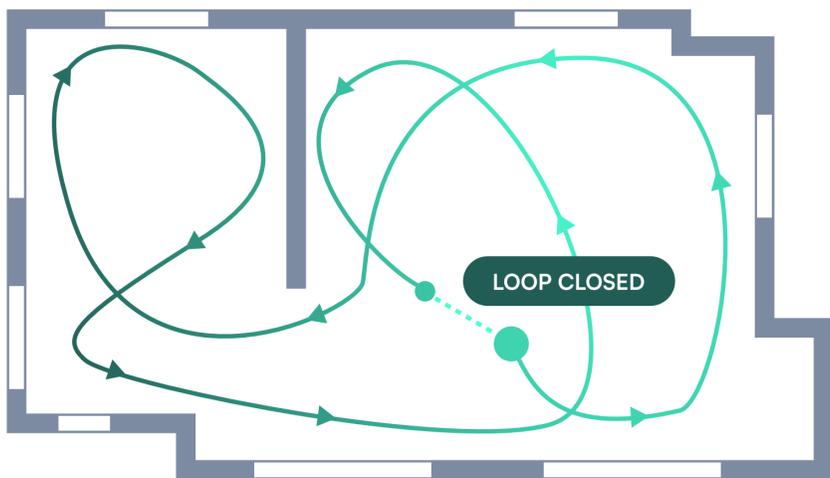## Before You Start Scanning

Prepare the Space

- ✓ Open any doorways
- ✓ Clear simple walking paths
- ✓ Add lighting where possible

Walk Smoothly

- ✓ Walk at a normal pace
- ✓ A warning will appear if you move too fast through the site
- ✓ Consistency and smooth movement produce the best results

Maintain Ideal Distance

- ✓ Stay about 1—2m (3—6 ft) from surfaces
- ✓ Avoid hugging walls or objects
- ✓ The scanner will alert you if you're standing too close

Loop Closure

LOOP CLOSED

The NavLive Scanner tracks your path during the scanning process and improves accuracy when you cross it again.
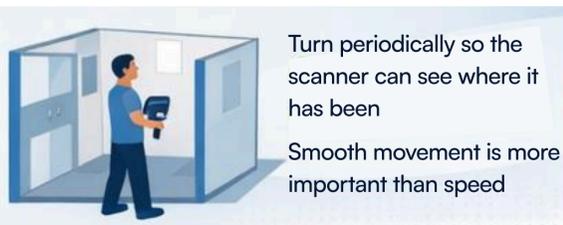
Best Practices

- ✓ Occasionally walk near previous routes (figure-8 style paths)
- ✓ Revisit central areas
- ✓ End your scan near where you started

You'll know a loop has closed when a green dotted line appears. Strong loop closures reduce drift and improve global alignment

Movement Patterns

✓ Think in loops, not straight lines

Turn periodically so the scanner can see where it has been

Smooth movement is more important than speed

✗ Avoid walking in long straight lines

⊞ Doors and Entrances

Angle the scanner slightly away from nearby walls as you are opening a closed door

Walk fully into the next space before turning back

💡 Low Light

The NavLive Scanner can operate in darkness, however:

- Low light affects colour quality
- Dark areas may appear black

Dark Area   Bright Area

Managing Drift

Longer scans increase the risk of drift. To manage drift:

- ✓ Maintain strong loop closures
- ✓ Follow movement best practices
- ✓ Use control points where available

- ✓ Move smoothly and consistently, maintaining distance from surfaces to improve scan stability
- ✓ Break large projects into manageable sections, capture notes, and merge scans to reduce drift.
- ✓ Review your scan before leaving site to confirm full coverage and check for drift or alignment issues.

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Quick Tips for the Best Scan Results

- [ ] Scan in short figure-8 closed loops, returning to your start point to strengthen alignment and reduce drift.

- [ ] Maintain smooth movement at normal walking speed for stable tracking.

- [ ] Stay about 1—2 metres from surfaces and avoid hugging walls or objects.

- [ ] Sweep slowly sideways through doorways, pause ~5 seconds in the threshold, and repeat both directions.

- [ ] Finish scans at the same point you started to reinforce alignment.

- [ ] Use control points where needed, but avoid placing GCPs in a straight line.

- [ ] Use staircases rather than elevators when transitioning floors

- [ ] Add temporary features in plain areas such as large empty warehouses or office spaces to improve positioning and loop closure.

- [ ] Capture notes and detail images during scanning to support QA and coordination.

- [ ] If tracking drops, step back into overlap and continue with a new scan.

- [ ] Review your scan before leaving site to confirm full coverage and check for drift or alignment issues.

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