

See more, now do more

with advanced planning capabilities

Through new optical tracking options, sophisticated software algorithms and instrumentation, today's Q Guidance System aims to deliver more surgical spine planning and navigation capability than ever before. And – when used in tandem with Airo TruCT - those abilities can be amplified even further. Their collective benefits can help make healthcare better.

Together:

O Guidance System and Airo® TruCT®

- √ Allow imaging and navigation to act as one
- ✓ Bring the benefits of
- √ Help maximize the potential of our sophisticated anatomical processing algorithms¹



- surgical navigation to life

- 1 FP8000 Camera
- 2 Camera Arm

• Completely redesigned software

Semi-automatic and automatic

• Gesture recognition (no-touch

validation, calibration and point

• Broad compatibility with various

processing features

types of image sets

applications

digitization)

- 3 Monitor Arm
- 4 Drawer with Mouse and Keyboard
- 5 Connector Panel (IO-Panel)

- 6 Storage Drawer
- 7 Computer System
- 8 Power Box (Power Supply)
- 9 Big Touch Monitor
- 10 Small Touch Monitor
- 11 Castors with brakes and cable pushers

Imaging matters: the value of Airo TruCT

- Seamless integration and automatic registration by selecting Airo as a "registration method"
- New Flat Stick-on Fiducials allow for automatic registration
- Fan beam technology for diagnostic quality intra-op CT scans

- Can intraoperatively scan a full meter of spine in one acquisition, reducing the need for multiple spins²
- Helps streamline workflow in complex cases
- When used with SpineMask, enables re-registration without Airo fiducials or point-to-point registration
- Large field of view includes visualization of skin surface, enabling additional planning and trajectory visualization

O Guidance System also works with **Ziehm Vision RFD 3D CMOSline**

Designed to impress

4th generation FP8000 camera



Speed...

Up to 4x

faster than StealthStation¹

Up to 16x

faster than Excelsius¹

...and flexibility

- Only guidance system with proprietary active technology and the non-invasive SpineMask Tracker
- Multiple tracking technologies; active/passive hybrid optical tracking technologies



Dual PCs

Two PC systems housed in one PowerBox

- Application PC for operating system and apps
- Real-Time PC for patient data
- Enables consistent, low latency computation of position and orientation of tracked instruments independent of workload running on Application PC¹

Dual monitors

Big Touch monitor

- 32" multi-touch monitor with graphical user interface (GUI) similar to a tablet
- Control by touch, enabled instruments, mouse and/or keyboard
- You select content and display format for clean, custom views of data most vital to you

Small Touch monitor

- For control outside the sterile field
- Displays same content and controls as Big Touch monitor





Software highlights

- ✓ Smart Segmentation with automatic screw planning
- ✓ Soft tissue stripping for enhanced visualization
- ✓ Reconstructed 3D x-ray views
- ✓ Dedicated k-wire visualization to support percutaneous screw placement
- ✓ Integration with multiple Spine fixation systems
- ✓ Gesture recognition (no-touch instrument calibration/validation and point digitization)
- ✓ Fast and accurate re-registration using rescue points

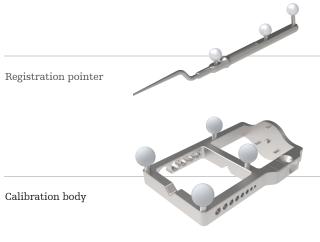


Usability

- ✓ Modern, intuitive interface
- ✓ Clean, physician-customizable dashboards
- ✓ Multiple patient tracking options including the non-invasive SpineMask Tracker and conventional bone-fixated trackers like the nGenius Spine Clamp and the OrthoLock

New instrumentation

- Passive registration pointer
- Passive calibration body to calibrate and validate instruments
- Airo TruCT Flat Disc Stick-On Fiducials (only disposable every 12 months)
 enable automatic registration





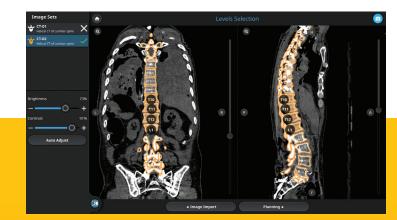
Enabling new norms for

spinal surgery

Smart Segmentation:

Vital planning insights

- Sophisticated algorithms segment the spine to the bone surface level
- Leverages Hounsfield units (HUs) from fan beam CT technology to capture detailed, diagnostic-quality images as the foundation for our algorithms
- Identifies and auto segments vertebral key points (body, posterior elements, left/right pedicles)
- Defines a coordinate system for each vertebra
- Refines the x-y plane to be as parallel as possible to the vertebra endplate







- right pedicle

Automatic screw suggestion:

Tailored per patient

- Once you select vertebrae to be instrumented, the software uses the fan beam CT of the patient to calculate:
 - Average pedicle transverse angle, based on level
 - Narrowest part (isthmus) of pedicle
 - Length/depth (based on 85% of insertion depth)
 - Diameter (based on 70% width of the isthmus, including 7.5mm upper limit)
 - Length/width calculated to fit exact or next smallest screw size
- Automatically recommends screw size and placement; you can "verify" or adjust
- Intuitively guides you through screw planning and placement via onscreen data, visuals and navigational guidance



Everest XT

MESA 2

Xia 4.5

Xia CT

Yukon Long Shank

Screw systems simplified

The system works with a wide variety of our screw systems whose specifications are pre-programmed. Simply select a screw system from the convenient drop down menu, and the software recommends a screw size and placement based on the CT image of your patient's pedicle/anatomy.

May help simplify complex tasks

- Designed to tailor screw planning to patient pedicles; suggests screw size and placement
- Allows "virtual screw placement" prior to real insertion
- Multiple options for integration with our Spine screw systems allow for individual choice of screw for screw planning
- Provides tangible measurements and visuals for decision making

Simblify

A powerful pair

for spinal navigation

Paired together for the first time, the combination of O Guidance System with Airo TruCT delivers potential advantages that may help simplify surgical planning and navigation. Here's a look at potential benefits when used together.



One full meter of scan range

(up to 51.2cm x 100cm scan volume)

Long spine constructs captured in a single scan

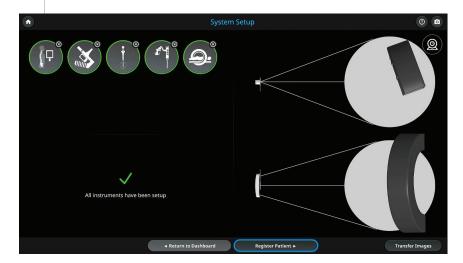
executed in as low as 43 seconds³

Utilize the high quality CT imaging from Airo

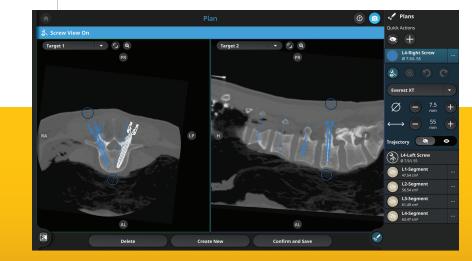
to take advantage of Smart Segmentation and automatic screw suggestion with Spine Guidance powered by Q

Integration and calibration between Airo TruCT and O Guidance System must be performed by authorized Stryker Service personnel.

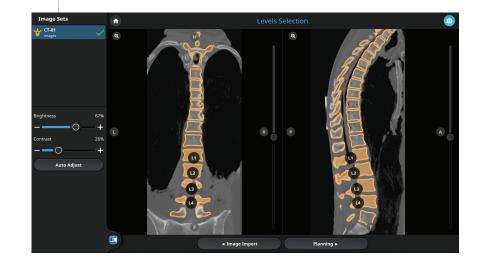
Set-up instruments and complete Airo Scan



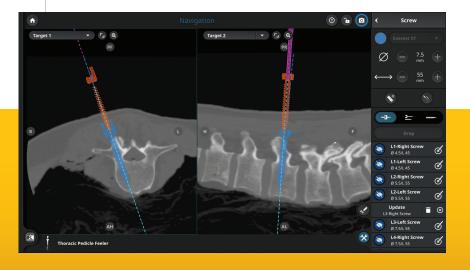
Confirm and save planned screws



2 Select levels from Smart Segmentation



Navigate to planned screw





New capability. New benefits.

We designed the O Guidance System, Spine Guidance Software and Airo TruCT to help you see, and now do more. To meet your clinical and budgetary needs, we offer a variety of flexible purchase options.

To trial or learn more, contact your Spine Enabling Technologies representative, call 866 526 4171 or visit stryker.com/spine.

| Part num | how | Product name |
|-------------|-----|-----------------|
| Pari IIUIII | Der | Product fidille |

| Q Guidance System |
|---------------------------------------|
| Spine Guidance Software |
| |
| Airo TruCT Scanner |
| Ziehm RFD 3D CMOS w/ Articulating Arm |
| |
| Calibration Body |
| Registration Pointer |
| Navigation Spheres (100 pack) |
| Flat Disc Stick-On Fiducials |
| |

References

- 1. Stryker data on file
- 2. Stryker test report: MI-48-0492 Rev 1 AIRO Preclinical Imaging Study 2021
- 3. MI-19-0030 AIRO Design Verification Procedure

Spine

A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. Stryker does not dispense medical advice and recommends that surgeons be trained in the use of specific products before using them in surgery.

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