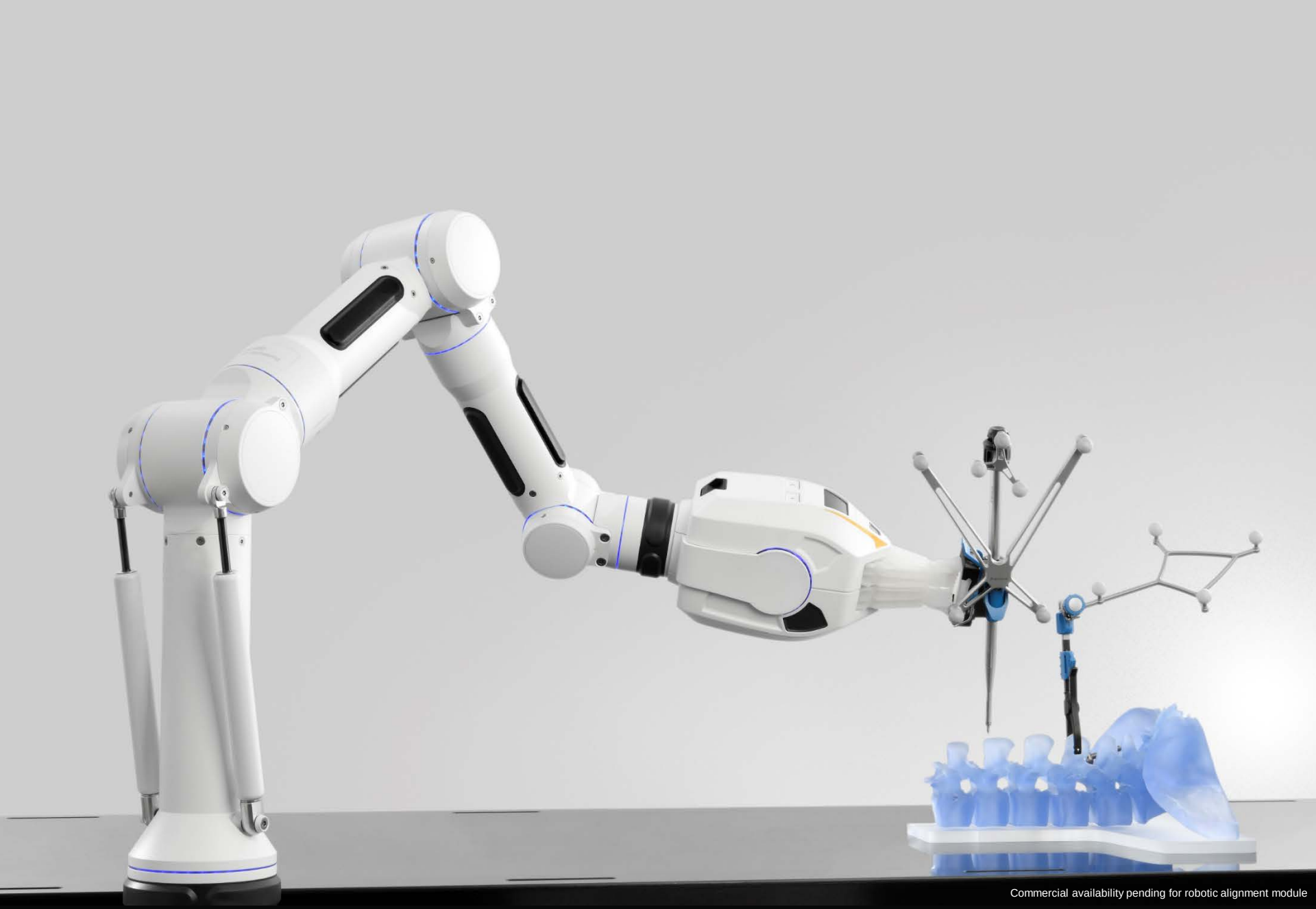
CIRQ™

ROBOTICS



Commercial availability pending for robotic alignment module

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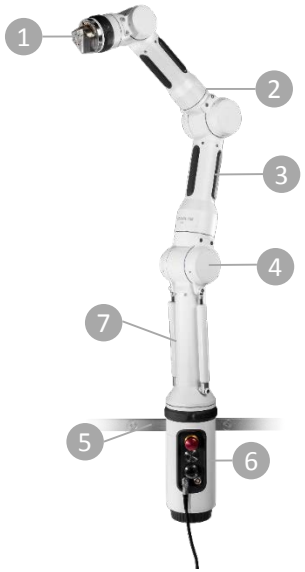
SLEEK ARM DESIGN

1. Port for different modules
2. Multisegment LEDs indicate system status
3. Integrated grip sensors activate separate parts
4. 7 degrees-of-freedom for highest flexibility
5. Attachment to standard O.R. table side rails
6. Fully integrated computer unit with no footprint
7. Portable, light-weight design (11kg)



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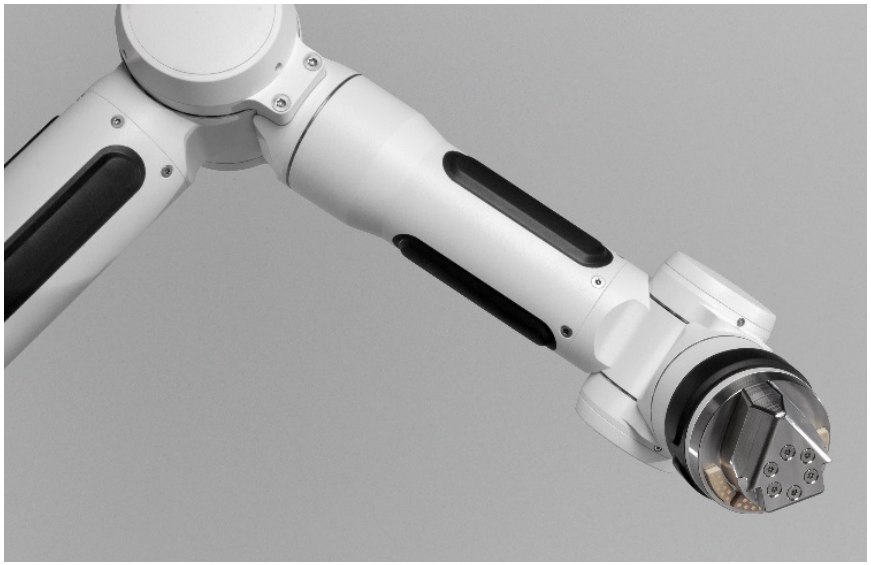
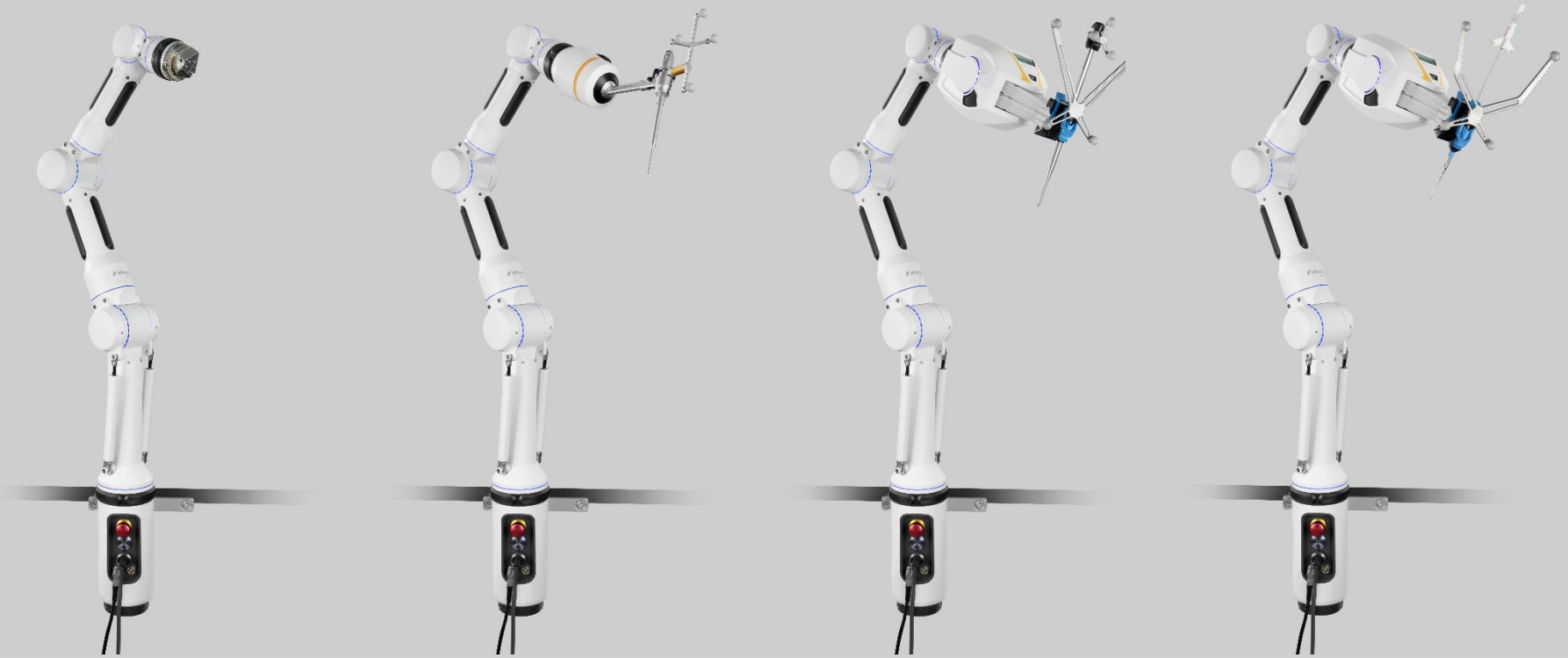
INTELLIGENT ARM COMPONENTS





Commercial availability pending for robotic alignment module

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ALIGNMENT MODULE SPINE

- Seamless workflow with navigation-ready instruments
- Provides stable procedure support when locked in place after alignment
- Tissue protecting trocars enable minimally-invasive surgery (MIS)
- Secure drill stabilization with sharp teeth anchoring on the bone
- Full drilling guidance with easy snap-on depth control
- Vendor-neutral compatibility with multiple implant sets
- Manual alignment for non-robotic spinal cases
- Negligible additional disposable costs / per case cost

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ROBOTIC ALIGNMENT MODULE SPINE

- Auto alignment to pre-planned trajectory
- Trackable trocar for drilling preparation
- Drill guide teeth designed for forceless anchoring
- Drill guide length supports various patient anatomies
- Four sphere arrays for robust tracking

Commercial availability pending for robotic alignment module

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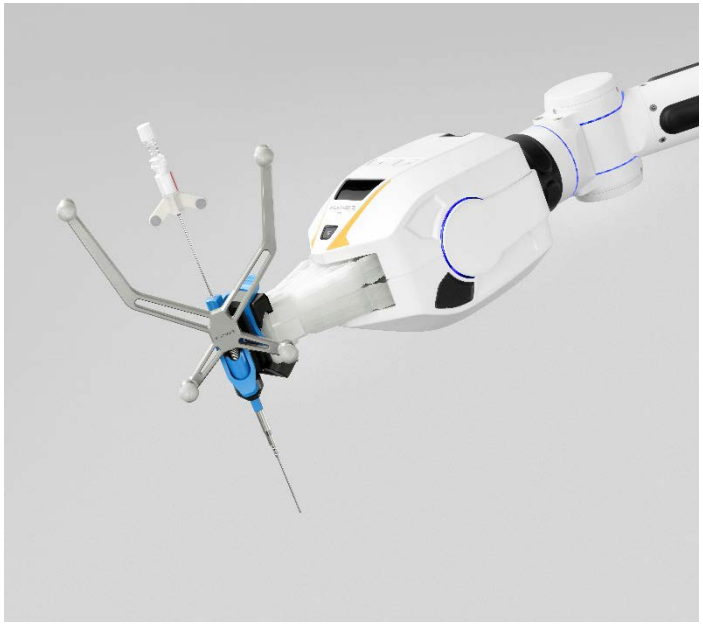
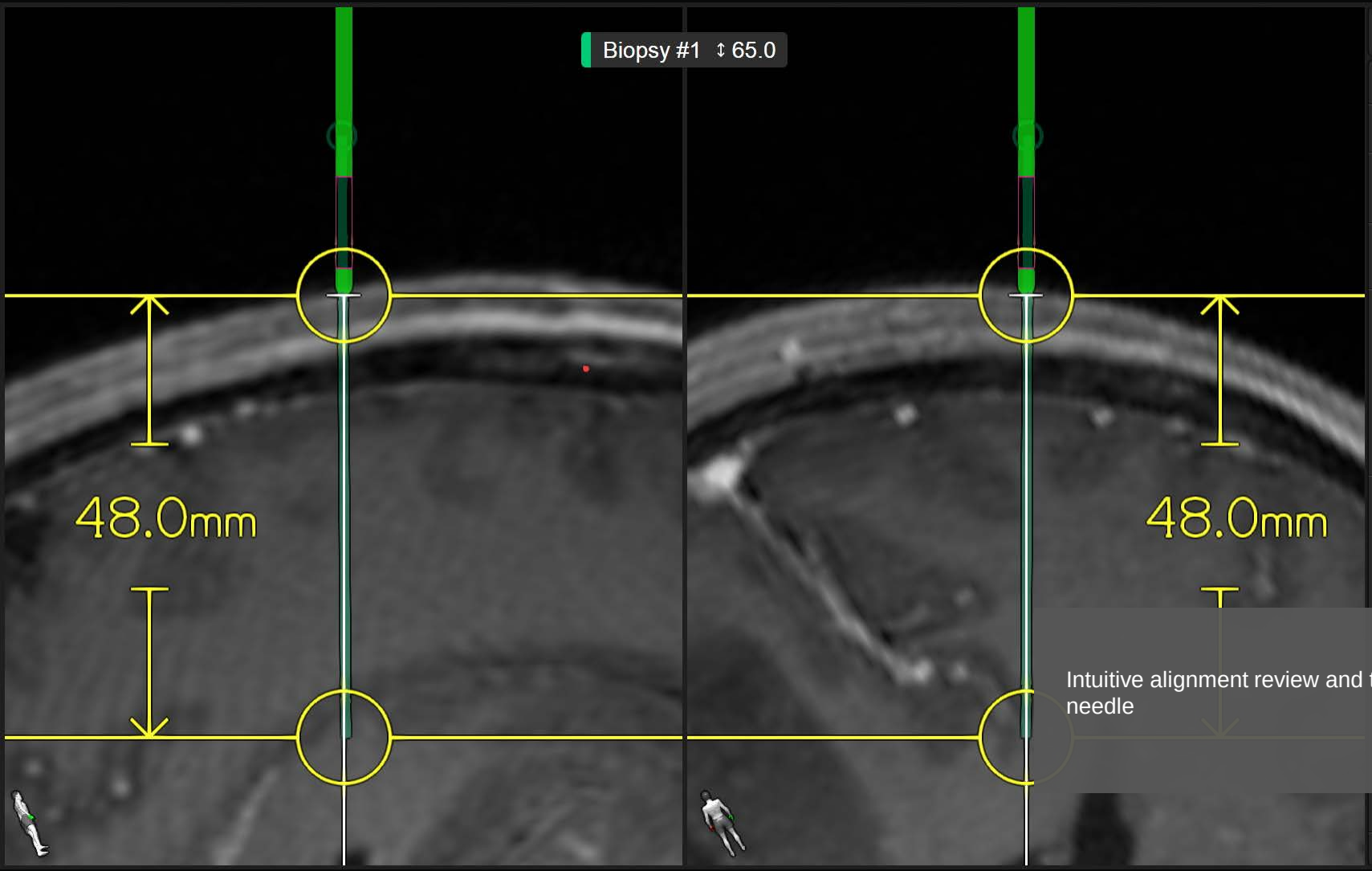
ROBOTIC ALIGNMENT MODULE CRANIAL

- Auto alignment to pre-planned trajectory
- Makes full use of Elements cranial planning applications
- Specific anchor for the skull adding stability to the setup
- Optimized for combined use with pre-calibrated Brainlab biopsy needle



Commercial availability pending for robotic alignment module



Intuitive alignment review and tracking of the needle

Commercial availability pending for robotic alignment module

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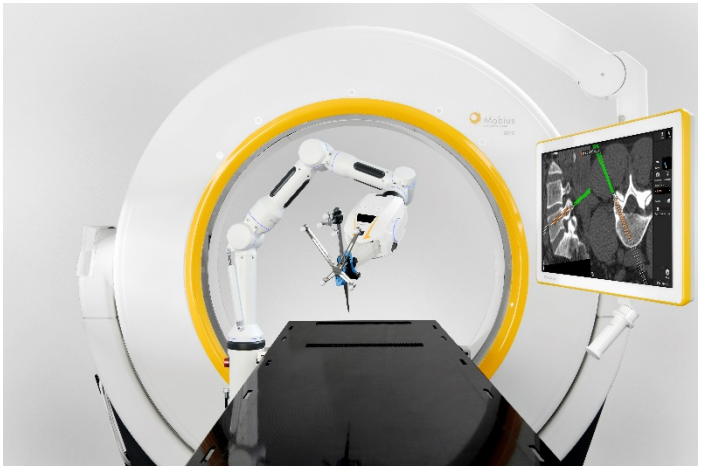
100% NAVIGATION INTEGRATION

- Leverages established workflows, set-ups and instrumentation
- Compatible with Kick and Curve navigation platforms
- Ideal in combination with intraoperative imaging such as Airo Mobile CT or 3D C-arm
- Features software for setup guidance and target alignment



Commercial availability pending for robotic alignment module

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FUTURE PROOF MODULAR CONCEPT

- Attachable modules provide indication-specific support in spinal and cranial surgery
- Simple exchange of modules
- Robotic alignment modules to be released end of 2019

Building blocks for future proof modularity

Commercial availability pending for robotic alignment module