

# ThoracolumbarBox

10 Operable Levels  
From T8 to S1



## Features



### Modularity

10 Operable Levels in 1 single simulator  
Two disposable levels: Skin Level (Open and MIS version) + Spine Level



### Mobile X-Ray\*

Get the Neurosurgery App and simulate fluoroscopy using Mobile X-Ray Technology to set landmarks and plan your surgical approach.

*\*Attention: Mobile X-Ray module works on Apple Devices only.*



### Standard X-Ray and CT Scan

The simulator is compatible with standard X-Ray, fluoroscopy and CT. Scan it and visualize the positioning of the fixation implants.



### Compatible with Standard Navigation

Upload the MRI scan on the navigator and start navigating the Box.

*\*Contact us at [support@upsurgeon.com](mailto:support@upsurgeon.com) to check the compatibility of your Navigation technology.*



### Disposable Parts

Disposable levels are readily available, designed to be replaced for continual, repeatable, and sustainable enhancement of your skills.

# How it is composed

## SKIN LEVEL

Open Version: Reusable  
MIS Version: Disposable



AR Marker slot

## SPINE LEVEL (Disposable)

Registration Fiducials for Navigation\*

Registration Fiducials for Navigation\*

## BASE (Reusable)

Attachment for Navigation\* Tracker

Openings to access Fiducial Markers

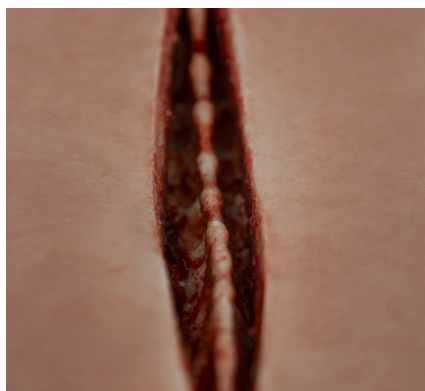


\* Check the compatibility of your Navigation System.  
Please contact us for a complete list of compatible systems and technologies.

# The highest level of detail

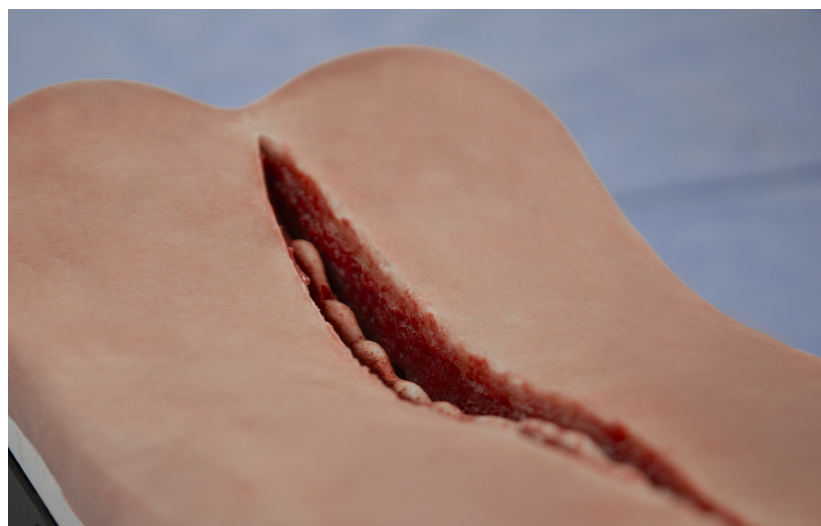
## PROCEDURES:

- **Posterior decompression and fixation** of the lower thoracic and lumbosacral segments
- **PLIF** (Posterior Lumbar Interbody Fusion)
- **TLIF** (Transforaminal Lateral Interbody Fusion)
- **Open and percutaneous approaches** (open reusable Skin Level and closed disposable Skin Level respectively)



## SURGICAL CAPABILITIES:

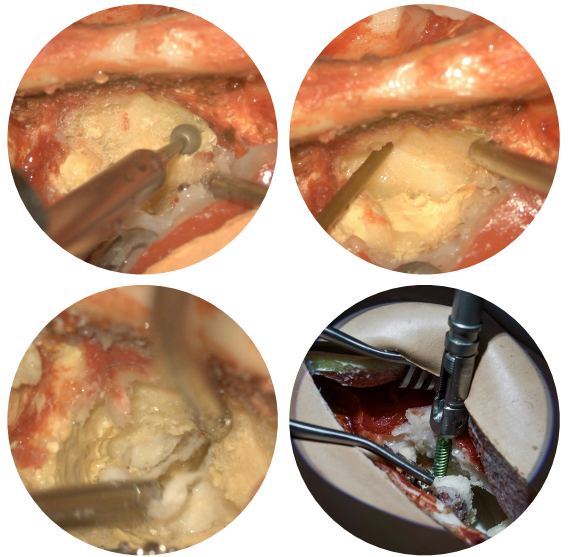
- **Laminectomies and flavectomies** 10 (T8-L5)
- **Multiple discectomies**  
Nerve root decompression through discectomies feasible from T8 to S1 (10 discectomies, T8-9, T9-10, T10-11, T11-12, T12-L1, L1-2, L2-3, L3-4, L4-5, L5-S1)
- **Multiple corpectomies**  
Total corpectomy feasible from T8 to L5 (10 corpectomies)
- **Instrumented surgery**  
Placement of any artificial disc and body, according to the above-mentioned levels (screws, disc cages, somatic cages)



# Surgical Realism



1. Ultra-accurate anatomy
2. Hyper-realistic materials



## ANATOMY INCLUDED IN THIS APPROACH:

- Open and closed skin
- Paravertebral muscles
- Flavum Ligament PLL (Posterior Longitudinal Ligament)
- Vertebrae from T8 to S1
- Discs from T8-9 to L5-S1
- Spinal cord
- Nerve roots
- Peridural fat

# Mobile X-Ray

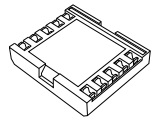
Get the Neurosurgery App\* to simulate fluoroscopy with Mobile X-Ray Technology to set your trajectory and navigate your endoscope in real time.

*\*Attention: Mobile X-Ray module works on Apple Devices only.*



Neurosurgery App\*

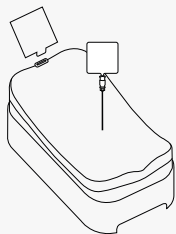
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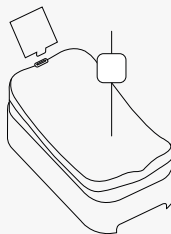
Mobile X-Ray Kit

## Possible ways to use it:

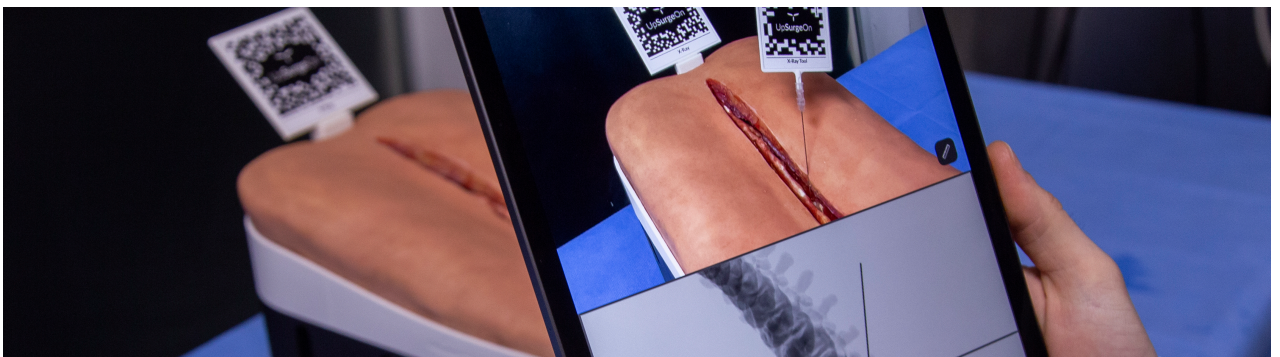
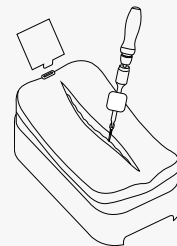
Spine needle



K-wire



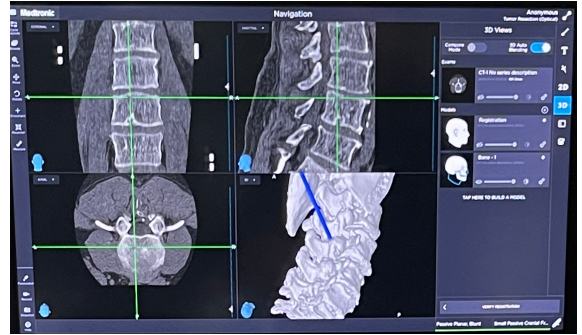
Custom Instrument



# Navigation\*

Upload the CT scan on the navigator and start navigating the Box.

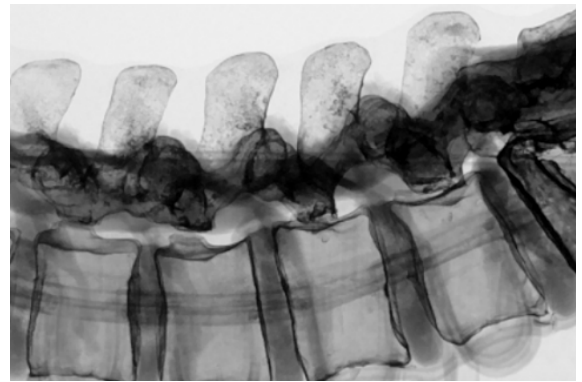
\*Contact us at [support@upsurgeon.com](mailto:support@upsurgeon.com) to check the compatibility of your Navigation technology.



## Standard Imaging

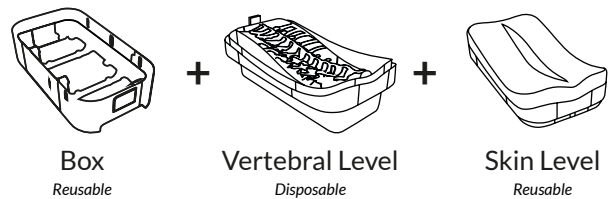
Scan the box with X-Ray and CT to verify the level and visualize the positioning of the fixation implants\*.

\*The box is not designed for MRI; do not subject it to MRI scans as it contains metallic components.



## Disposable Parts

Designed to specifically mimic the properties of human tissues, such as softness, elasticity, and texture.



## OPEN AND MINIMALLY INVASIVE SKIN LEVEL



# What is included

- ThoracolumbarBox:
  - 1 Skin Level (Open or MIS)
  - 1 Spine Level
  - 1 Base
- Mobile X-Ray Kit



# General warnings

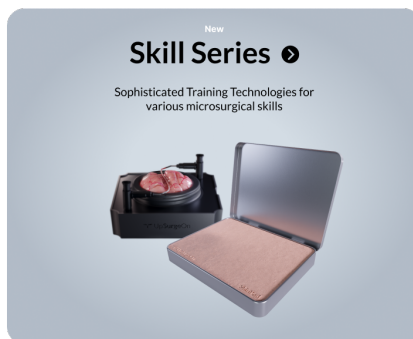
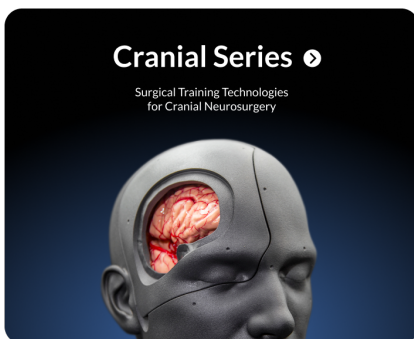
**THIS PRODUCT CONTAINS METALS:  
DO NOT PUT IT INTO A MAGNETIC RESONANCE!**

- Adult assembly required
- Never leave children unattended with the box
- Never put hot liquids above the tools
- Never put chemical substances above the tools
- Wash with water, do not use chemical products
- Keep the product in a dry environment
- Keep the product away from any heat source
- Pay attention to your eyes when using

All materials used to produce UpSurgeOn products are certified, safe and non-toxic. Use of gloves, protective glasses and mask is always suggested to maintain the cleanliness of the simulator and the tools, and as a standard practice during each simulation. Wearing safety equipment is mandatory in the use of drilling simulation.

# Discover our Technologies

We have developed the most advanced microsurgical simulation Technologies to date, with the goal of raising the bar for medical education and training.



**Thank you for choosing our Technologies!**

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