

# **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 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 **SPINE LEVEL** (Disposable) Registration Fiducials for Navigation\* Registration Fiducials for Navigation\* **BASE** (Reusable) Openings to access Fiducial Markers Attachment for Navigation\* Tracker

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

AR Marker slot

# 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 abovementioned levels (screws, disc cages, somatic cages)



# **Surgical Realism**

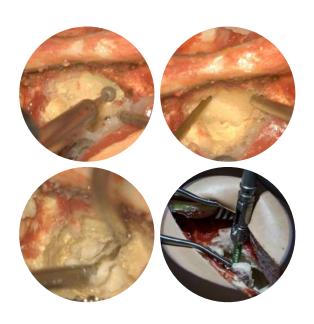




- 1. Ultra-accurate anatomy
- 2. Hyper-realistic materials

### ANATOMY INCLUDED IN THIS APPROACH:

- Open and closed skin
- Paravertebral muscles
- Flavum Ligament PLL (Posterior Longitudinal Ligament)
- Vertebras 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\*



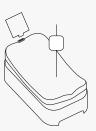
Mobile X-Ray Kit

#### Possible ways to use it:

#### Spine needle

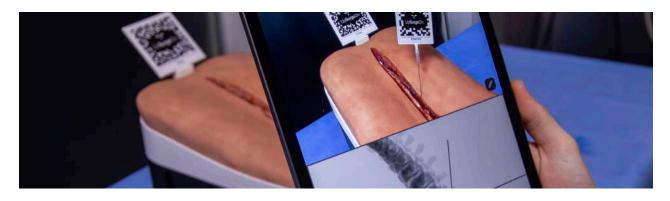






**Custom Instrument** 





# Navigation\*

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

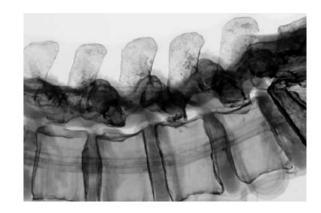
\*Contact us at support@upsurgeon.com to check the compatibility of your Navigation technology.



# **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.



# Reach out to us

If you wish to acquire further information, please contact us at the following contact details according to your country of origin.

## **Europe**

excluding UK & Ireland

### **UpSurgeOn**

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### **Brasil**

### Spinetech

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# **USA, UK & Ireland**

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## **UpSurgeOn**

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# Follow UpSurgeOn

UpSurgeOn is a hi-tech company specialized in psychomotor skill augmentation in microsurgeries through the use of bleeding-edge virtual andphysical simulation technologies.











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