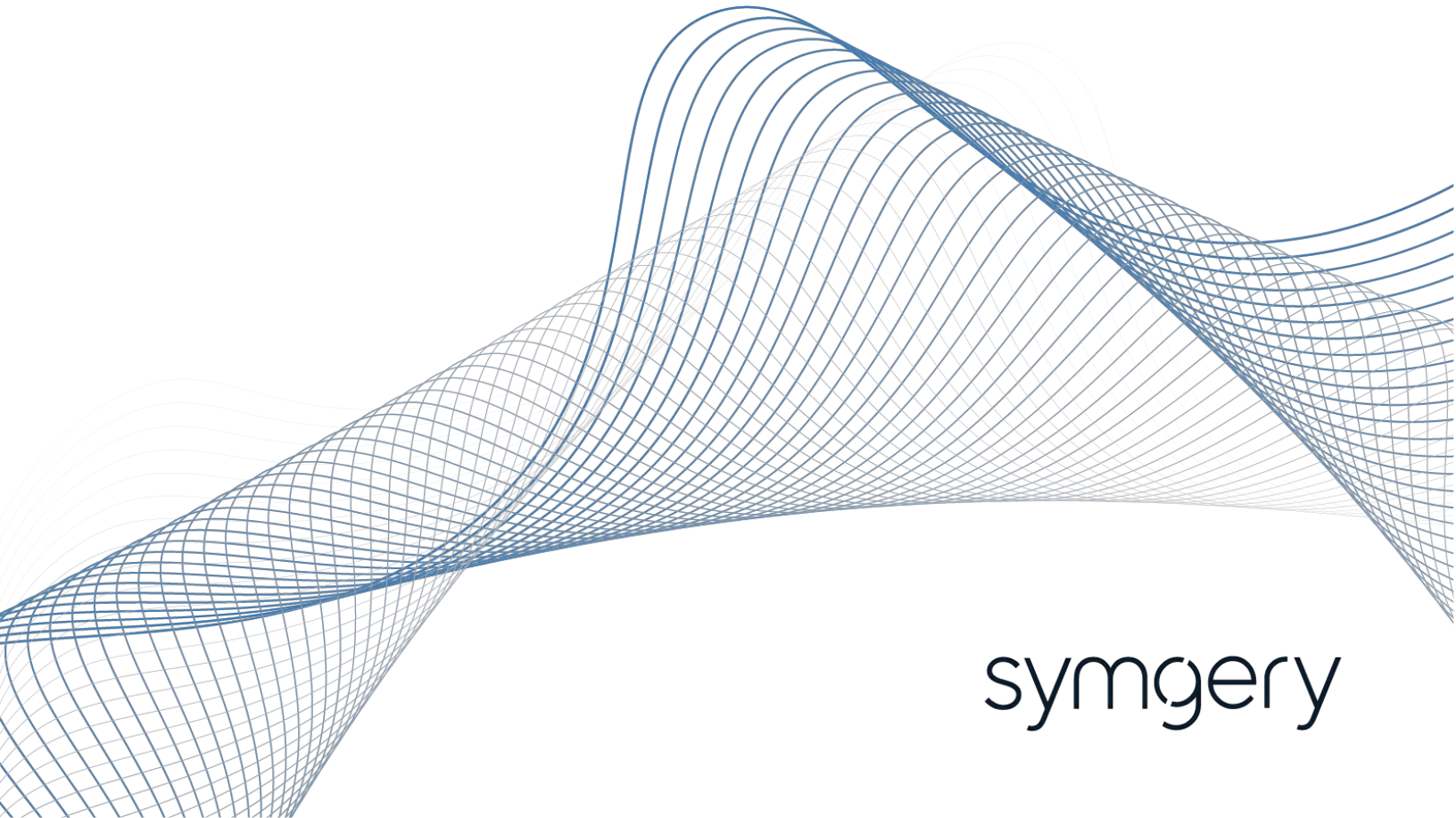
T SYM™

Tabletop Simulator

Technical Specifications

July 2023



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1. Introduction

Symgery™ is pioneering immersive and progressive learning experience using high-fidelity simulation that mirrors real-life clinical scenarios.

The product strategy is to develop a portfolio of immersive simulators to target different learners' needs and different learning situations.

The Symgery team imagines, creates, and crafts learning experiences that go beyond traditional teaching, with a unique blend of technologies, practical techniques, and proven methodologies.

Our learning strategy is to create blended-learning syllabi using a competency- & problem-based approach for each procedure. We deliver this engaging and behavior-changing learning experience in a learner-oriented pathway.

2. T SYM™ (Tabletop Simulator)

The T SYM™ is our flagship simulator. It is designed to help learners to acquire new surgical skills in a reduced timeframe. With its best-in-class high fidelity haptics, the T SYM™ encourages learners to perform deliberate practice of defined procedures and techniques in a safe environment, while its metrics help the learner and tutor to capture, measure and track performance.

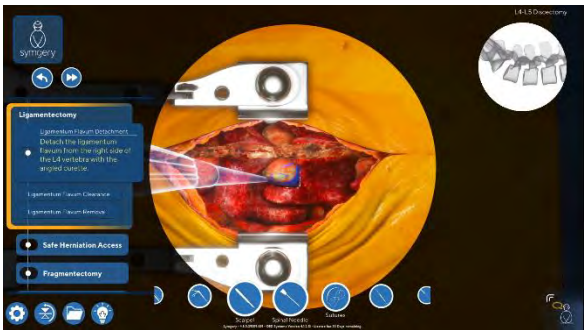
T SYM™ covers a comprehensive package for the learning of:

- Patient case procedures - Spine
- Technique procedures - Spine
- Instrumentation - Dry Lab
- Real time fluoroscopy

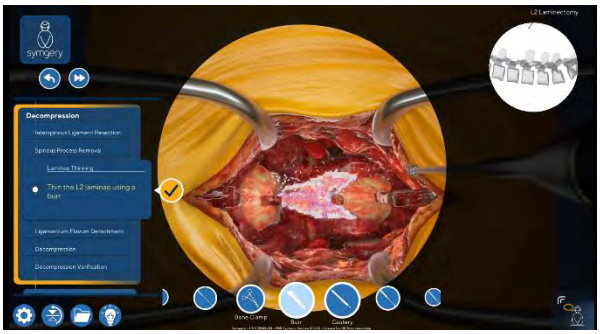
3. Patient Cases / Techniques / Dry Lab

Patient Cases – Spine
• L4-L5 Right Paramedian Disc Herniation - Discectomy - Release 4.1
• L2-L3 Diffuse Bulging Disc - Laminectomy - Release 4.2
• C4-C6 Stenosis - Laminectomy - Release 4.3
• C3-C7 Adjacent Segment Disease – Decompression and Fusion- Release 4.5
Techniques – Spine
• L1-S1 Pedicle Screw Insertion - Release 4.2
• C3-C7 Lateral Mass Screws Insertion - Release 4.3
• L4-L5 Transforaminal Lumbar Interbody Fusion (TLIF) - Release 4.4
• C1-C2 Screw Insertion - Release 4.5
Dry Lab
• Introduction to the Awl, Burr, Depth Gauge, Drill, Kerrison and Pedicle Finder - Release 3.3
• Free form spine - Scoliosis - Release 3.3

L4-L5 Right Paramedian Disc Herniation - Discectomy
Release 4.1

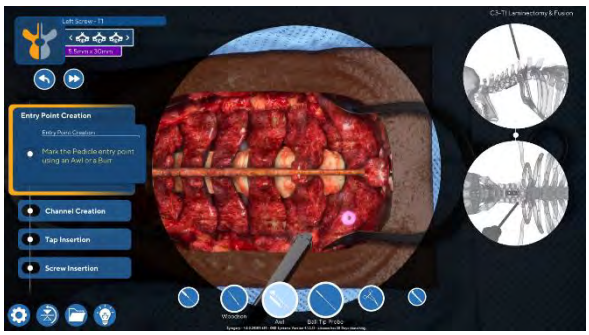


L2-L3 Diffuse Bulging Disc - Laminectomy
Release 4.2



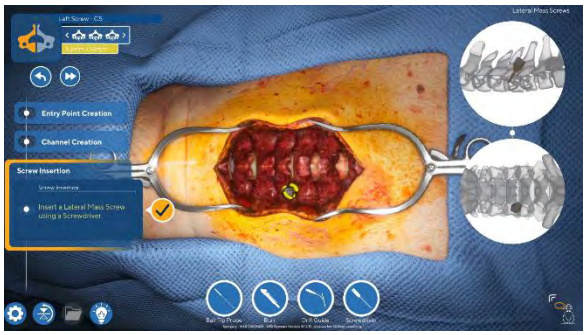
C4-C6 Stenosis - Laminectomy
Release 4.3

C3-C7 Adjacent Segment Disease – Decompression and Fusion
Release 4.5

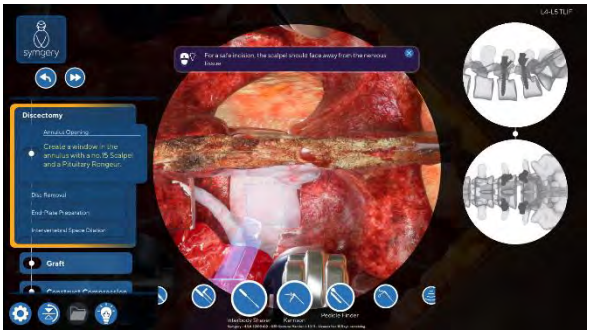


L1-S1 Pedicle Screw Insertion
Release 4.2

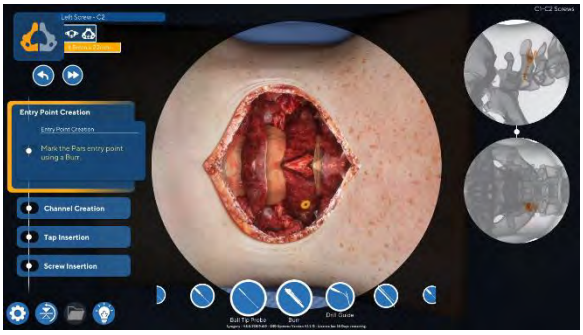
C3-C7 Lateral Mass Screws Insertion
Release 4.3



L4-L5 TLIF
Release 4.4



C1-C2 Screw Insertion
Release 4.5



4. Features

- Magnification (from 1.5x to 10x) and full camera controls
- Pedal-controlled tools
- Real-time fluoroscopy
- AP, LAT and fully custom views in X-ray mode
- Instant feedback and OR tips
- Results and final imaging saved to user account.

5. Surgical Instruments

Awls
Ball Tip Probes
Banana Cage Insertor
Banana Cage Trial
Bone Scalpel
Burrs
Cautery
Curettes
Depth Gauges
Interbody Shaver
Pedicle Finders
Penfield
Rods and Forceps
Scalpels
Screwdriver
Shaver
Spinal Needle
Taps
Woodson

Kerrisons
Pituitary Rongeur

Bone Clamp
Leksell Rongeur
Penetrating Towel Clamps

Drill
Drill Guide

Cerebellar Retractors
Cobb Elevator
Funnel and Impactor
Gelpi Retractors
McCulloch Retractor
Rods and Set Screws
Sutures
Vertebral Distractor

6. Physical specifications

The T SYM™ simulator consists of a haptic robot module (approx. 45 cm x 45 cm X 40 cm), a high-performance computer and a single medical-grade 24" touch-screen.

- The robot generates haptic feedback on 5 degrees of freedom.
- Tool handles that connect to the robot and emulate the shapes of the handles of real surgical instruments.
- A pedal unit that plugs into the computer, used to control the fluoroscopy and some power tools such as the burr.
- Product can optionally be delivered with custom Pelican cases for transport.

7. Contacts

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