laparoscopy

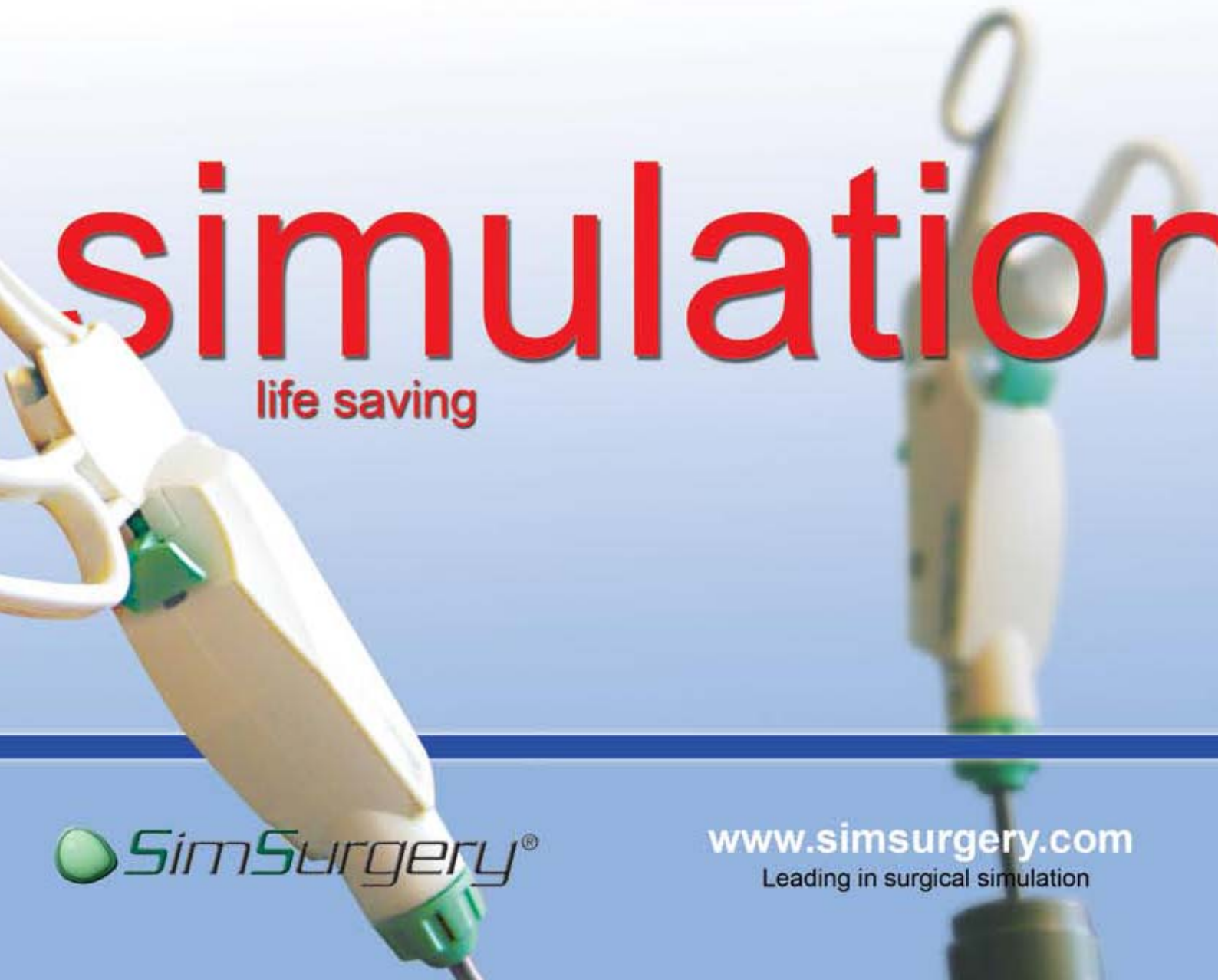
skills

education

validation

simulation

life saving



SimSurgery®

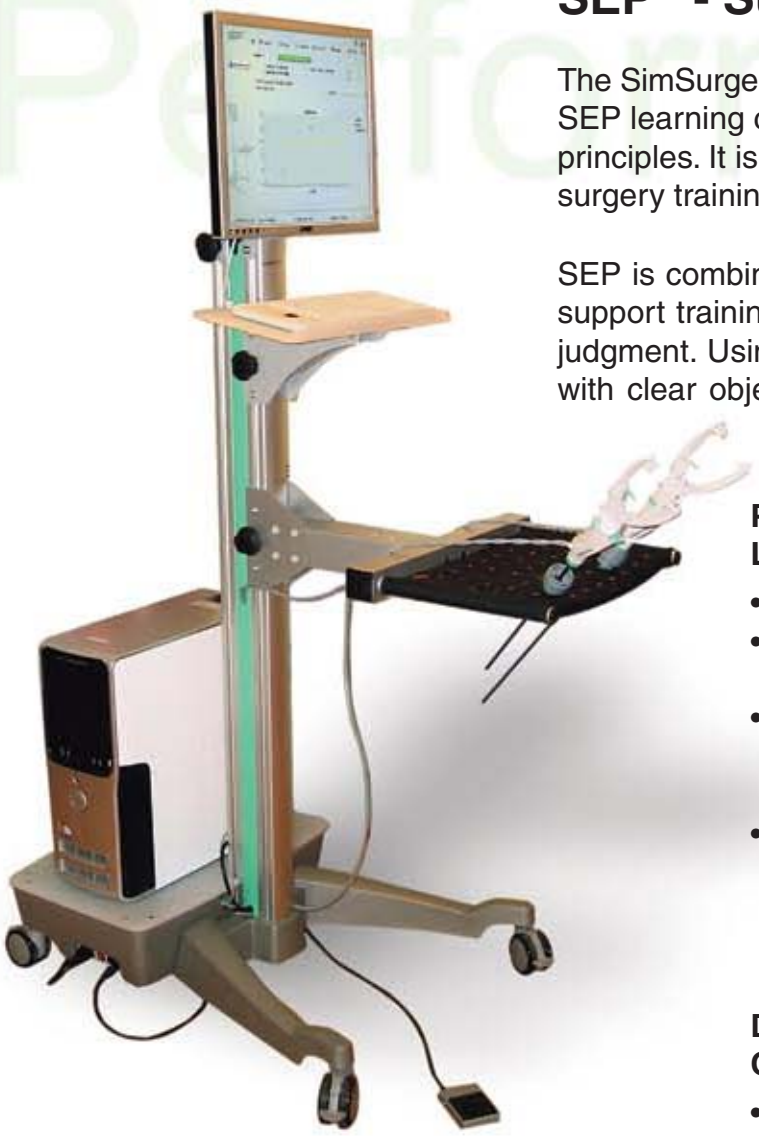
www.simsurgery.com

Leading in surgical simulation

SEP - Surgical Simulation Platform

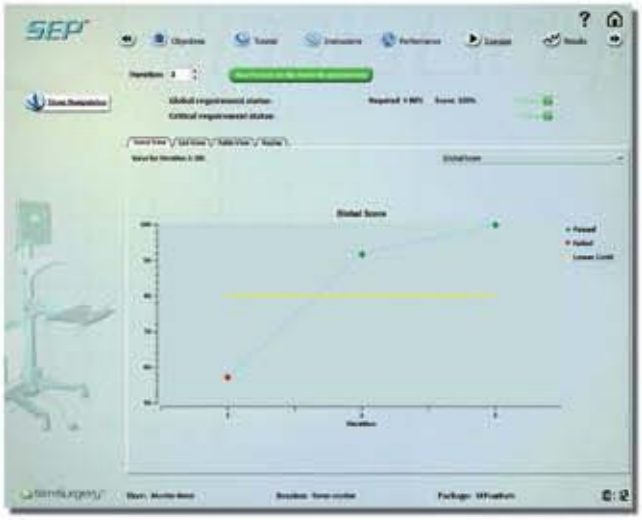
The SimSurgery laparoscopy simulator, together with the SEP learning concept is based on validated educational principles. It is a unique tool for minimally invasive surgery training and performance evaluation.

SEP is combining simulation and multimedia content to support training and education of skills, knowledge and judgment. Using SEP gives you a systematic approach with clear objectives, instructions and online guidance.



"It is no longer a question if a VR simulator can be used to train surgical skills. Our focus is on how we implement the VR simulators in our curriculum"

Neal E. Seymour, MD
Baystate Medical Center - Springfield, MA



Measuring results for important feedback

Pre exercise
Learning objectives and instructions

- Clear learning objectives for every exercise
- Tutorials: With relevant video clips from real surgery
- Instructions: Step-by-step descriptions, video and text of how to perform the simulator exercises
- Performance: Dynamic measurements, error tracking and performance requirement setup

During exercise
Online guidance and feedback

- On-screen text instructions
- Color coding to indicate where to grab, where to set stitches, correct stretching
- Guided and non-guided exercises

Post exercise
Result review and playback

- Numeric presentation of measurements, errors and trends
- Graphical presentations of measure ments, errors and trends
- Storing historical data for review
- Easy export of data to Excel

The Simulator will be delivered with preinstalled soft/hardware and configured according to customer needs.

Basic modules

Camera Navigation

The objective of the camera navigation exercises is to learn how to use straight and angled scopes. These 5 exercises focus on surgical concepts like the fulcrum effect, horizon control, view angle, field of view and steady view.

Tissue Manipulation

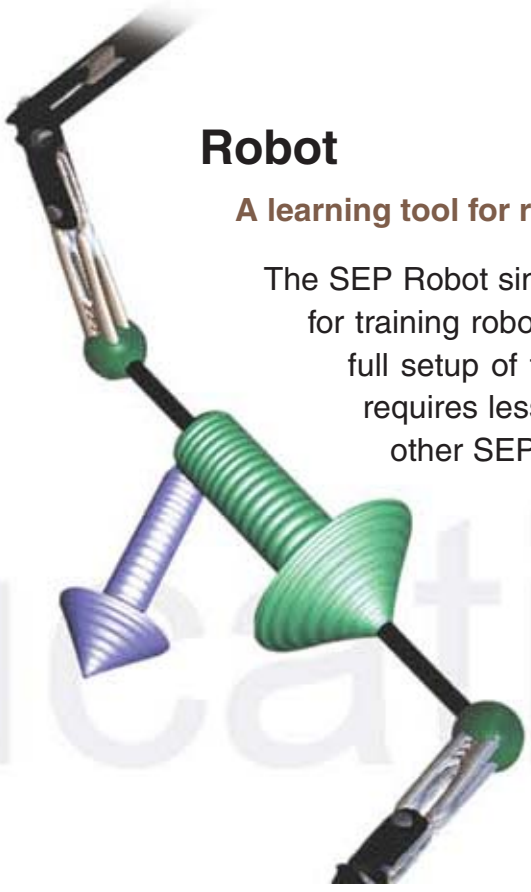
The objective of the tissue manipulation exercises is to learn complex bimanual tissue manipulation with gentle and precise movements. These 6 exercises focus on surgical concepts like respect for tissue, plane of dissection, gallbladder dissection, traction and counter traction, eye-hand coordination, and ambidexterity.

Basic Suturing

The objective of the basic suturing exercises is to learn how to obtain optimal needle orientation and to set precise stitches with minimal tissue damage. These 7 exercises focus on surgical concepts like needle orientation, respect for tissue, precision and rotation of curved needle.

Advanced Suturing

The objective of the advanced suturing exercises is to learn how to perform correct surgical knots and sutures. These 8 exercises focus on surgical concepts like square knot and surgeon's knot, suture management, tissue approximation, continuous and interrupted sutures.



Robot

A learning tool for robotic surgery

The SEP Robot simulator offers an effective, safe, and cost efficient solution for training robotic surgery. Whereas training on the real robot requires a full setup of the complete telemanipulatory system, using SEP Robot requires less time and people. The SEP Robot simulator can run with other SEP simulators on the same SEP surgical hardware platform.

Advanced modules

Cholecystectomy

Learn the most critical steps. The first steps includes dissection of Calot`s triangle with clipping and division of the cystic duct and artery. The second step is dissection of the gallbladder away from the liver bed.

Ectopic Pregnancy

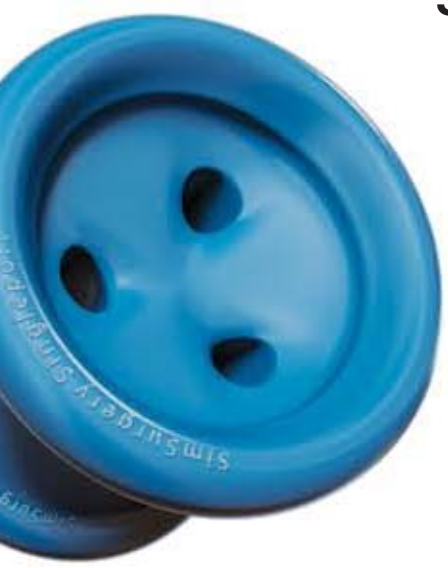
Learn how to get access to the pelvis and either incise the affected fallopian tube and remove the pregnancy (Salpingostomy) or remove the affected fallopian tube with the pregnancy (Salpingectomy). You may choose to perform the procedures on the left or right fallopian tube.

Ovarian Cystectomy NEW

Learn how to access the pelvis and to remove a cyst located in the ovary. Like all the other advanced modules the simulation offers a lifelike anatomical setting and let surgeons practice on right procedure steps, trocarplacement and correct selection of instruments.

Nephrectomy NEW

Learn the key-steps of Transperitoneal Nephrectomy procedure. Explore the renal region. Incise the line of Toldt and mobilize the colon. Dissect and expose the renal hilum, then secure and divide the hilar vessels.



Single port NEW

Single incision surgery

Single port laparoscopy requires specialized skills. The technique has been shown to be an approach that is easily learned and accomplished with our simulator. We believe this is a necessary and important bridge towards proficiency in performing such procedures in clinical patients. With our virtual training you can train and exercise all the critical steps in single port laparascopy without the pressure of time or outer circumstances.

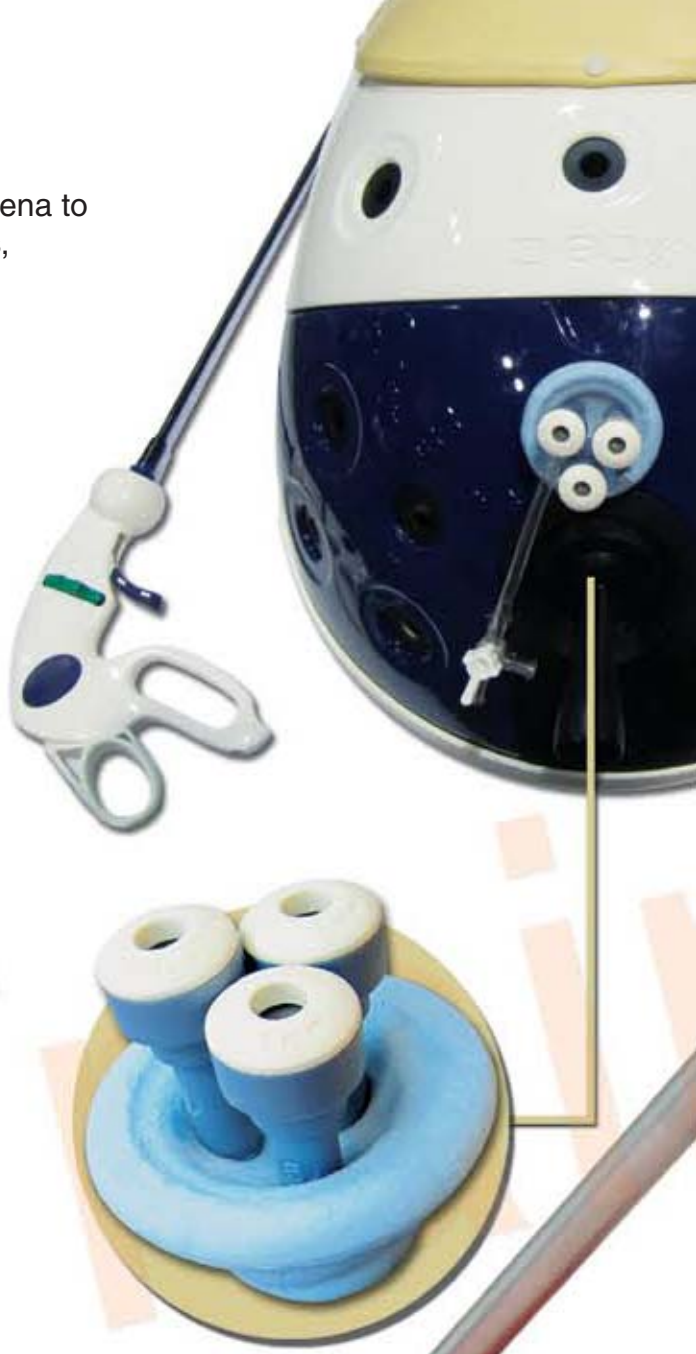
D-box

The idea and concept of the D-box is to be a training arena to develop, improve and maintain basic laparoscopic skills, as well as psychomotoric skills and dexterity.

It evolved from the idea of making an affordable, suitable, portable and practical training arena for laparoscopy.

Our latest version of the D-box also include training of Single Port and Ventral hernia in addition to conventional laparoscopic surgery. Single Ports from major medical device companies fit the D-box.

The D-box includes a set of accessories used to simulate a variation of surgical techniques. The different exercises have different levels of difficulty. From the simple and fairly easy tasks to the most difficult.

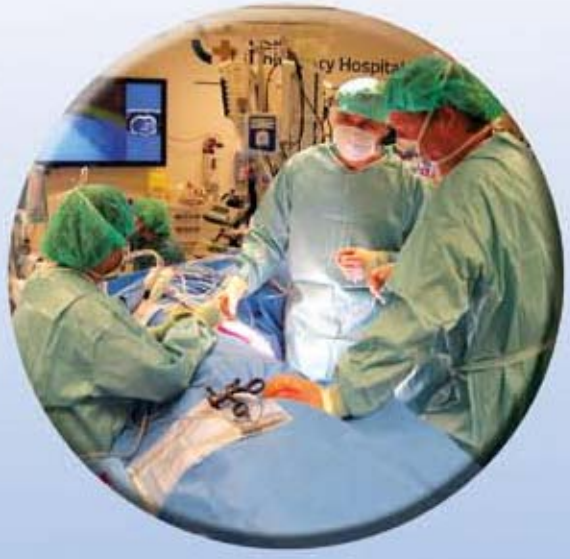


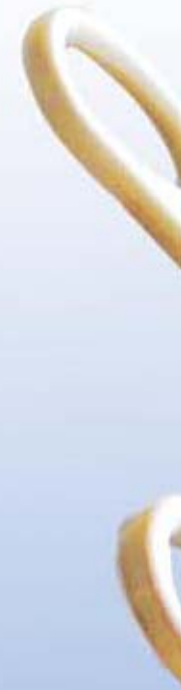
Single port training

Suturing

SimSurgery AS established in 1999, develops and provides simulators for training of surgical skills and procedures in a global market place. The simulators are based on advanced VR (Virtual Reality) technology, developed by SimSurgery. The new D-box manual trainer is developed by former Lapskill Medical and has been merged with SimSurgery AS as of January 2011.

The company holds several patents which cover central software and hardware solutions. The success of the SimSurgery products is a result of the company's philosophy that advanced technology and quality are developed in order to achieve the best possible educational tools.





SimSurgery®