



LAP Mentor™



Simbionix™ *To Advance Clinical Performance*

The Symbionix LAP Mentor™ is the only evidence based simulator for advanced laparoscopic skills and complete clinical procedures.



The Gold Standard of Laparoscopic Training Solutions

- **Complete Clinical Procedures**
Complex clinical scenarios with real time complications, such as bleeding and injuries to important organs, offer the user an opportunity to train in a risk-free educational environment.
- **Procedural Tasks**
Each task focuses on one critical stage of the procedure to allow the trainee to master the essential skills of the Laparoscopic procedures.

Interactively-guided, procedural techniques enable learners to experience different approaches to the procedure and appropriate use of surgical instruments.
- **True-To-Life Training Environment**
Created by the combination of a lifelike tactile experience, detailed anatomy, realistic imaging, commonly used surgical instruments, real time synchronization between hand-held tools to those on the screen and various trocar configurations.
- **Educational Content**
Didactic features and educational aids such as 3D anatomical maps, interactive instructions and real life videos, help trainees to fully understand all aspects of the procedure.
- **Comprehensive Performance Evaluation**
Detailed reports provide feedback to the learner and the educator in order to assess skill level and training success.

The reports include learning curve graphs with metrics categories such as: time and economy of movements, safety and electrosurgical dissection, procedural errors, and many more.

Over 60 Validation Studies

- Prospective randomized controlled study indicates that simulator-based **training of camera navigation can be transferred to the OR.**
Franzeck et al, Surg Endosc 2012 Jan;26(1):235-41
- Positive **correlation between performance on the LAP Mentor and real laparoscopic surgeries video assessment.**
Matsuda et al, J Endourol 2012 Nov;26(11):1506-11
- Laparoscopic **warm-up exercises improve performance** of senior-level trainees **during laparoscopic renal surgery.**
Lee JY et al, J Endourol. 2012 May;26(5):545-50
- LAP Mentor successfully integrated into **team training.** *Kjeilin et al, Scand J Surg 2014 Feb 18*
- Laparoscopic **basic skills and cholecystectomy VR training curriculum was defined and validated** using structured scientific methodology.
Aggarwal et al, British Journal of Surgery 2009; 96: 1086-1093
- Lap Mentor may be proposed as a **certification tool for bariatric surgeons.**
Giannotti et al, Surg Endosc 2013 Aug 31
- The LAP Mentor is a high fidelity simulator that provides full procedures and is **superior to basic VR simulators.** *Reznick et al 2009*

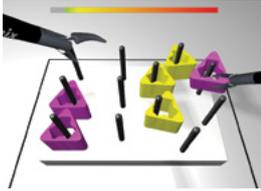


Multidisciplinary Library of Modules for Learners of All Levels

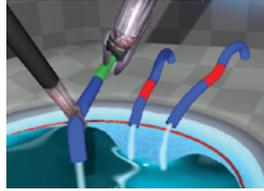
Developed in collaboration with world leading physicians, the training modules support skills acquisition to build confidence and proficiency in a variety of laparoscopic techniques and procedures. The library currently offers 14 modules, including unique basic skills modules as well as complex procedural modules presenting over 70 unique patient cases.

The LAP Mentor Curriculum

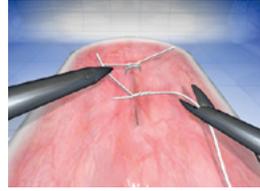
Tasks and Skills Modules



Essential Tasks



Laparoscopic Basic Skills



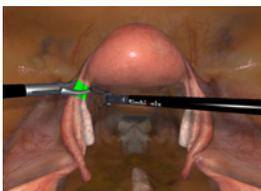
Basic and Advanced Suturing

Bariatric Surgery

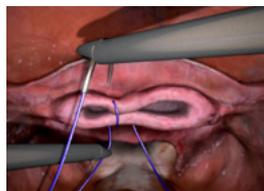


Gastric Bypass

GYN Surgery



Hysterectomy



Vaginal Cuff Closure



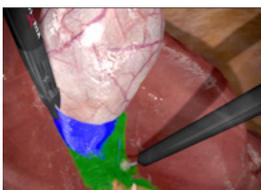
Essential Gynecology

Colorectal Surgery



Sigmoidectomy

General Surgery



Procedural Tasks - Lap Chole



Lap Chole



Cholangiography

Urology Surgery



Nephrectomy



Incisional Hernia



Appendectomy

Thoracic Surgery



Lobectomy

MentorLearn Simulator Curricula Management System

The Symbionix multidisciplinary simulators effortlessly integrate into your program curriculum.



- Customizable curriculum incorporating training and didactics
- Easy and efficient administration of simulator users
- Online learning courses and video-based content
- Proficiency based hands-on training
- Performance reports with learning curve graphs



Flexible Solutions

Simbionix laparoscopic training platforms are suitable for various settings to address different needs. Interchangeable handles on both platforms enable running the full range of training modules.



LAP Mentor III **NEW**

- Superior haptic feedback
- Ergonomic design:
 - › Adjustable height
 - › Modifiable monitor position



LAP Mentor Express

- Portable
- Cost effective
- Height adjustable tower - optional
- Non-haptic





Symbionix - To Advance Clinical Performance

Symbionix is a part of 3D Systems, a leading provider of 3D printing centric design-to-manufacturing solutions including 3D printers, print materials and cloud sourced on-demand custom parts for professionals and consumers alike in materials including plastics, metals, ceramics and edibles.

Symbionix products provide a complete solution for training simulation programs with its full array of simulators, PROcedure Rehearsal Studio™ for case rehearsal and MentorLearn™ for simulator management. We are committed to the advancement of clinical performance and optimization of procedural outcomes through education and collaboration.

Our team cooperates with physicians on a regular basis to produce the most reliable and effective solutions for its customers.

“The LAP Mentor offers us the best virtual reality training module on the market in order to help train our surgical residents across all disciplines. The Symbionix LAP Mentor is the best tool that we have available from a virtual reality standpoint; it has excellent haptic feedback and offers a very realistic stepwise progression of the procedures.”



*John Zografakis, MD, FACS,
Summa Health System, Akron, Ohio*

Symbionix Products Locations

7100 Euclid Avenue, Suite 180, Cleveland, OH 44103 USA

Tel +1-216-229-2040, Fax +1-216-229-2070, Toll-free 1-866-746-2466 | Simbionix@3DSystems.com

www.symbionix.com



www.3dsystems.com