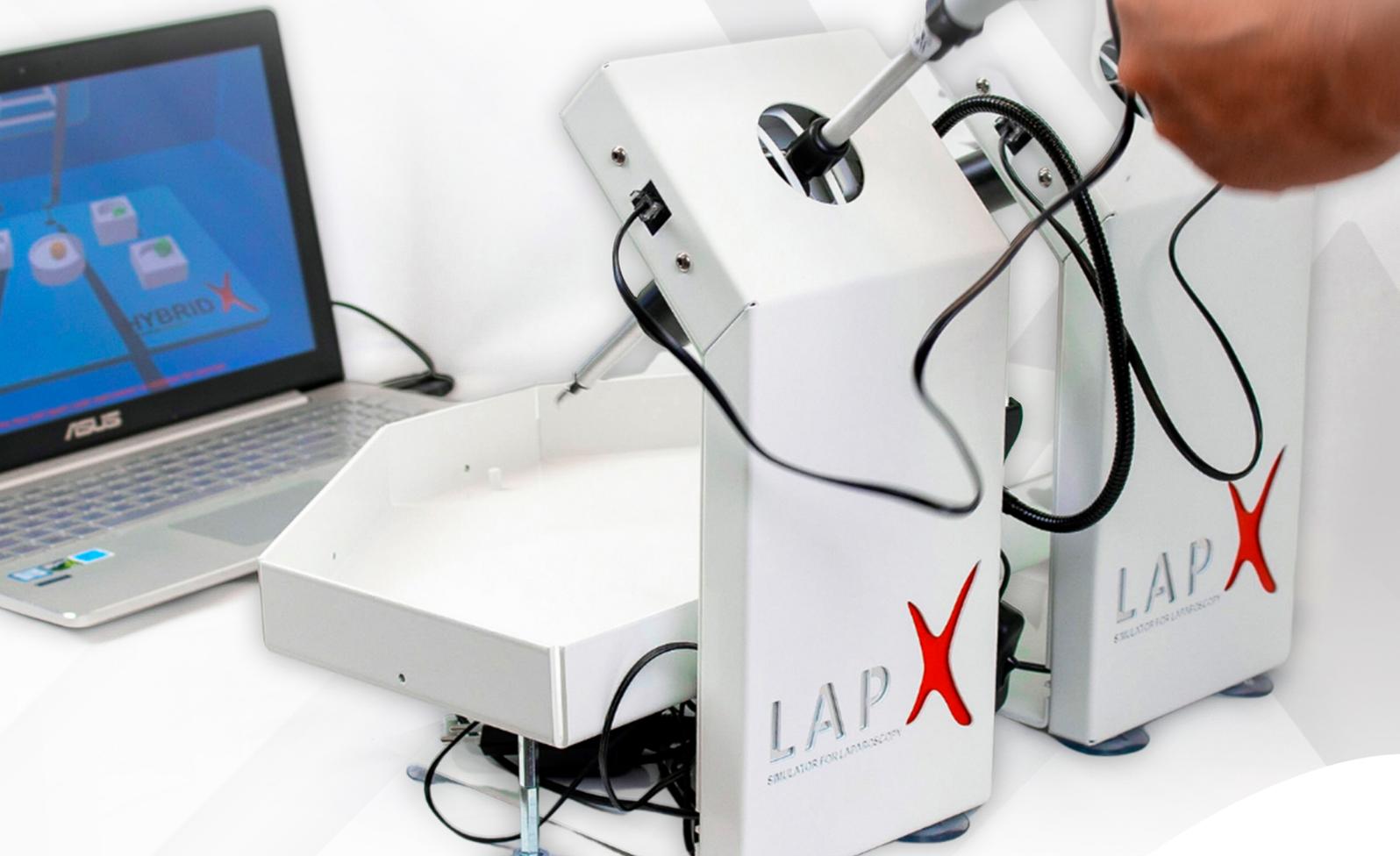# LAP-X
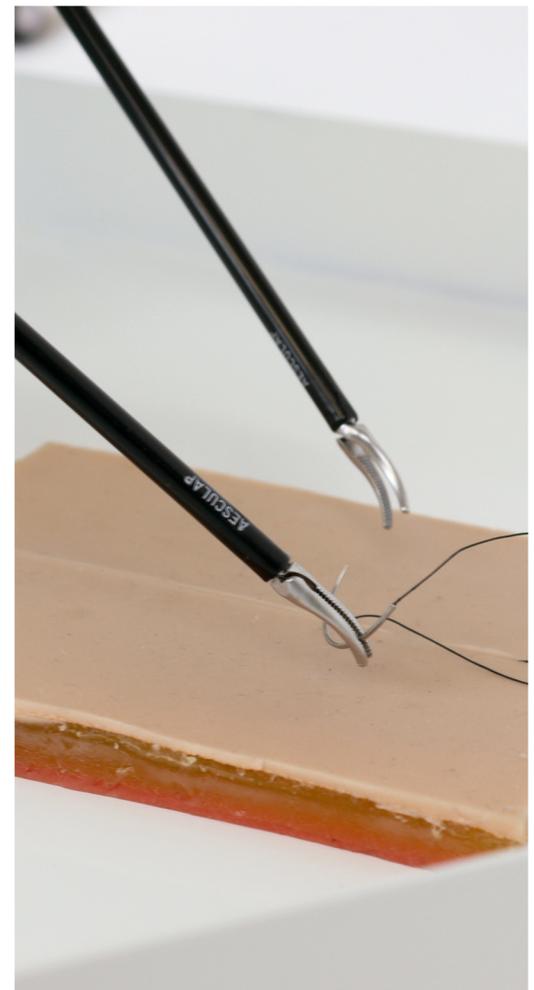

MEDICAL-X
ADVANCING SIMULATION

LAP-X

Introducing **LAP-X**, our advanced laparoscopic surgical simulator, available in three distinct models tailored to meet the diverse needs of medical professionals:

LAP-X offers comprehensive simulation training in minimally invasive surgery, catering to medical students, surgical residents, surgical assistants, and surgeons of all skill levels. Designed for ease of use and accessibility, **LAP-X** provides cost-effective training without compromising quality.

Through hands-on practice with authentic laparoscopic instruments, trainees can enhance their manual dexterity, hand-eye coordination, and depth perception, which are essential for successful laparoscopic procedures.

LAP-X offers three system platforms to accommodate various requirements within the healthcare profession. Each model is housed in a lightweight, portable, and durable carrying case, facilitating easy transportation and installation. Additionally, all models feature realistic laparoscopic graspers specifically designed for training purposes, ensuring authenticity and effectiveness in simulation:

- **LAP-X Box**
- **LAP-X VR**
- **LAP-X Hybrid**

Experience the next generation of laparoscopic simulation with **LAP-X.** Elevate your training and surgical skills with our innovative simulator.

LAP-X Box

The **LAP-X Box** is portable, compact, easy to set up, and can be used with a desktop or laptop computer. It has an ergonomic design and an easy and intuitive interface.

LAP-X Box works as a traditional box trainer with a recording software package, including a database to register different users. Users' performances can be recorded to be assessed by the instructor later.

LAP-X Box is compatible with all kinds of different box exercises available on the market.

Benefits

- Portable, compact, and easy to set up
- Ideal for developing and improving laparoscopic skills
- Intuitive and self-explanatory system
- Administration tool to monitor the training progress of trainees
- Real surgical instruments are used, narrowing the gap between training and actual surgery
- Box trainer with endless possibilities of exercises
- Unlimited user registration
- Database to register different users
- Trainees' performance can be recorded for later assessment
- Possibility to use animal organs for training

General

- Power supply from the computer's USB port
- Camera Connection: USB 2.0 and 3.0

System Specifications

- Two controllers of 1.6 kg each
- Controller Dimensions: 22x15x32cm (WxDxH) each
- HD camera, led light, foot pedals
- Exercise platform 35x30x5cm (WxDxH)

Computer Requirements
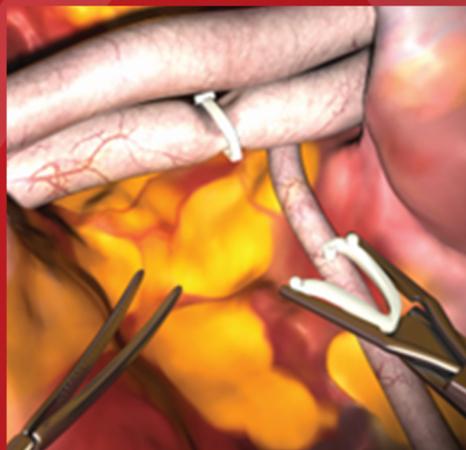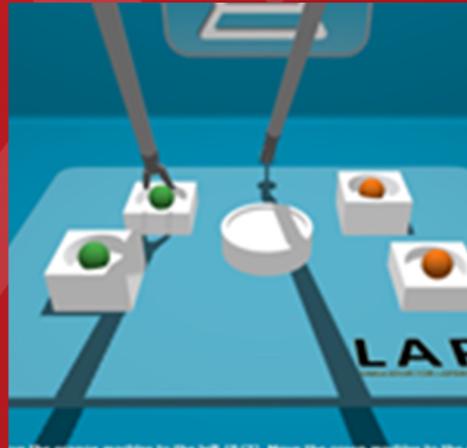
- Processor Intel i7, 3.4GHz
- Memory >8 GB

LAP-X VR

LAP-X VR is an innovative virtual reality simulator for cost-effective motor skills training in a safe environment.

LAP-X VR provides a meticulously curated platform featuring a spectrum of various curricula of increasing difficulty to attain proficiency skills: basic, novice, intermediate, and procedure modules like appendectomy, cholecystectomy, and nephrectomy.

LAP-X VR features exercise videos, which the trainee can watch before performing the exercise. After the training has been completed, the software provides an automatic assessment.

The trainee can then submit the scores and video recording to the instructor, who can log in locally or online and give feedback.

Benefits

- Portable, compact, and easy to set up
- Ideal for developing and improving laparoscopic skills
- Intuitive and self-explanatory system
- Virtual reality training
- Administration tool to monitor the training progress of trainees
- Real surgical instruments are used, narrowing the gap between training and actual surgery
- Unlimited user registration
- Database to register different users
- Instant feedback with measurement: duration, path lengths, mistakes
- Trainees' performance can be recorded for later assessment
- Online remote assessment by the instructors
- 34 VR exercises divided into five curricula

General

- Power supply from the computer's USB port
- Camera Connection: USB 2.0 and 3.0

System Specifications

- Two controllers of 1.6 kg each
- Controller Dimensions: 22x15x32cm (WxDxH) each
- HD camera, led light, foot pedals

Computer Requirements

- Processor Intel i7, 3.4GHz
- Memory >8 GB
- Video Card Nvidia® GeForce® GTX 650 or better

LAP-X Hybrid

LAP-X Hybrid = LAP-X Box + LAP-X VR

LAP-X Hybrid offers the best of both worlds: an unparalleled fusion of training methodologies, integrating the LAP-X Box with the LAP-X VR in one simulator!

With the possibility of metrics measurement, performance recording, and online remote assessment, **LAP-X Hybrid** provides an ideal training solution to help surgical educators save time, effort and money while achieving the best training result.

With the **LAP-X Hybrid**, you can easily switch from Box to VR and vice versa.

Providing the functionalities of virtual reality training and box training, **LAP-X Hybrid** is a complete simulator that delivers a holistic training experience, infusing authenticity and realism into every laparoscopic training session.

Benefits

- Portable, compact, and easy to set up
- Ideal for developing and improving laparoscopic skills
- Intuitive and self-explanatory system
- Easily switch from LAP-X Box to LAP-X VR and vice versa
- Administration tool to monitor the training progress of trainees
- Real surgical instruments are used, narrowing the gap between training and actual surgery
- Unlimited user registration
- Database to register different users
- Instant feedback with measurement: duration, path lengths, mistakes
- Trainees' performance can be recorded for later assessment
- Online remote assessment by the instructors
- Possibility to use animal organs for training
- 34 VR exercises divided into five curricula

General

- Power supply from the computer's USB port
- Camera Connection: USB 2.0 and 3.0

System Specifications

- Two controllers of 1.6 kg each
- Controller Dimensions: 22x15x32cm (WxDxH) each
- HD camera, led light, foot pedals
- Exercise platform 35x30x5cm (WxDxH)

Computer Requirements

- Processor Intel i7, 3.4GHz
- Memory >8 GB
- Video Card Nvidia® GeForce® GTX 650 or better

Find below a Comparison Table between the **LAP-X** models with a selected summary of the simulator's functions.

Comparison Table

	LAP-X Box	LAP-X VR	LAP-X Hybrid
Portable, compact, easy to set up	☑	☑	☑
Real surgical instruments	☑	☑	☑
Recording software for later assessment	☑	☑	☑
Database to register different users	☑	☑	☑
Lightweight, portable, and strong carrying case	☑	☑	☑
Box trainer with endless possibilities of exercises	☑		☑
Virtual reality training		☑	☑
Instant feedback with measurement: duration, path lengths, mistakes		☑	☑
34 VR exercises divided into five curricula		☑	☑

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Warranty

While we're confident in the user-friendliness of MEDICAL-X's products, we recognize their advanced nature necessitates robust support and service. That's why we offer comprehensive application training and a two-year product guarantee. Additionally, service packages are available to meet specific needs.

About MEDICAL-X

MEDICAL-X is a Dutch company specialized in the design, development, manufacturing, marketing and distribution of simulation products for medical teaching and training. Our mission is to provide healthcare professionals with simulation-based training solutions and cutting-edge technological simulators that are cost-effective and time-efficient to teach and train clinical skills without risk to actual human patients.

Design philosophy

Realism is the key to our design philosophy! Simulator training gives medical teams the experience, competence, and confidence they desire. Realism adds to the quality and efficacy of training.
Our products are developed through extensive feedback programs to produce an engaging experience for healthcare professionals. Form and function come together in a realistic and interactive simulator, ready to be used in training for all levels of care.

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