



by **HUMAN
XTENSIONS™**
Interactive Brochure

The HandX® is a lightweight, compact handheld smart laparoscopy solution. HandX® allows the surgeon to perform complex minimally invasive surgeries (MIS) using a device that combines the benefits of surgical robotic-based platform with the simplicity and affordability of traditional laparoscopic surgery.



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HUMAN XTENSIONSTM

REDEFINING MIS

Human Xtensions is catalyzing a new medical reality, by delivering digital handtop innovation that pushes the art of surgery into new frontiers.

By combining the advantages of robotics with the benefits of affordable handheld instruments, our operating systems are creating a new standard in the medical device arena.

Human Xtensions handheld surgical solutions put anatomic access at your fingertips, as we strive for assisting in overcoming known surgical challenges.

We invite you to

Xtend Yourself



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The HANDX®

YOUR HANDHELD SOLUTION

HandX® is a Handheld Software Driven Laparoscopic System for MIS.

Robust yet compact and lightweight, the unique system is a **Platform** that combines the advantages of **Robotic** with the benefits of a Handheld electromechanical instrument.

HandX® empowers the surgeon's freedom, flexibility, proximity, control, and range.

- FDA-cleared
- CE marked (MDR)
- A handheld surgical solution that combines the dexterity of robotic surgery with the benefits of an ergonomic modular handheld platform
- Potentially broadens the surgeon's MIS practice, by ensuring free and natural maneuverability, at the patient's bedside
- Streamlines the surgeon's natural hand motions into fluid movements inside the patient's anatomy
- Easy to use, powerful tool that is lightweight and natural



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COST EFFECTIVE

SIMPLIFIED, MODULAR, COST EFFECTIVE

HandX® combines the advantages of robotics with the benefits of advanced handheld innovation for medical centers of any size and scope.

- Suitable for any hospital surgical environment
- Modular technology platform
- Minimal set-up time
- No workflow disruption
- No maintenance
- Flexible economic model
- Only 1 instrument per procedure
- Short learning curve, designed to match and empower surgical teams of any skill level in any hospital's OR
- Minimal OR footprint
- Enables converting open surgery to MIS
- High mobility and enabler for fast procedure turnover



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OPTIMAL FIT



- Ergonomic comfort
- Robust digital capacity in a lightweight handheld device
- Accommodates various hand sizes
- Ambidextrous
- Natural grip



KEEPING FLEXIBILITY AT HAND

HandX® easily adjusts comfortably to fit the grip of the surgeon's hand, it simply extends the human hand into the targeted areas, used with ease and free mobility.



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PROGRESSIVE OPERATING SYSTEM

- Compatible with regular 5mm trocars
- Interfaces with rigid and flexible instruments
- Support multiple end-effectors
- Fully articulated with 8 DOF (4 motorized, 4 manual) laparoscopic tools
- Lessens the sensitivity of the trocar's position in the procedure plan
- Allows easy instrument replacement during surgery

MODULAR AND FLEXIBLE SYSTEM

HandX® facilitates complex MIS maneuvering, allowing efficient articulation, and smooth access to technically challenging areas.



*Self-Righting Needle Holder and
Monopolar Scissors are 510k pending



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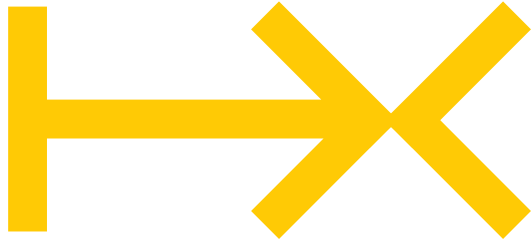
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PERSONALIZATION - EASE OF CONTROL



DIRECT EXPERIENCE, VIRTUOUS ARTICULATION, TAILORED TO THE SURGEON AND PROCEDURE

By scaling the surgeon's motions and forces, HandX® is agile and requires the surgeon's natural hand movements for full control.

- Enables complex procedures
- The articulation of the device allows flexible tissue access
- Jaw movements mimic natural finger gestures
- Up to 540 degrees jaw rotation, surgeon-driven and adjustable
- Personalized technology enables DOF customization
- Scalable DOF enables customization of the performance envelope
- Suitable for a wide variety of surgical approaches



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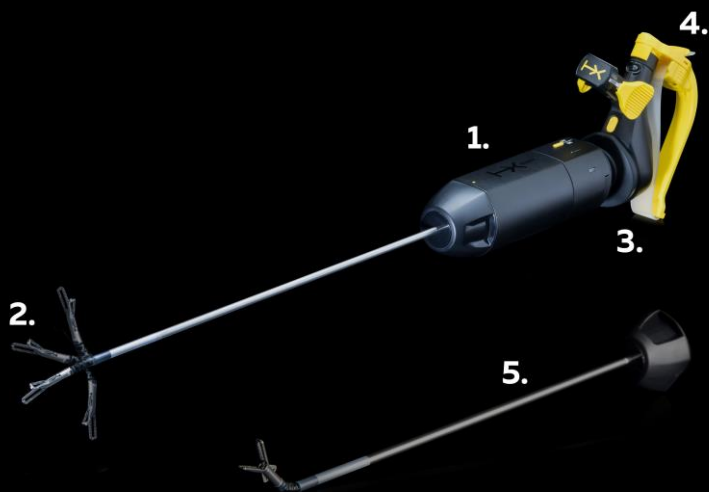
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TECHNICAL SPECIFICATION



HandX® technical information

- 1. > Small drive unit supporting 4 DOF articulating rigid instrument for laparoscopy
- 2. > Wide range of efficient articulation solutions
- 3. > 4 DOF Control interface allowing scalable motion and forces.
 - > Can interface with different instruments (rigid/flexible)
- 4. > A single control interface for all product portfolio
 - > Natural ergonomics- fits all hand sizes, no need for manual force
 - > Single operation button
- 5. > Disposable detachable tool



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TECHNICAL SPECIFICATION

Description	End effector length	Working Length
HandX® set Handpiece x2, Power adapter x2		
Instrument - Monopolar Hook	Active electrode 6 [mm]	327 [mm]
Instrument - Monopolar Spatula	Active electrode 7 [mm]	328 [mm]
Instrument - Needle Holder	18 [mm]	350 [mm]
Instrument - Fenestrated Grasper	30 [mm]	362 [mm]
Instrument – Self-Righting Needle Holder *(CE marked and 510k pending)	16 [mm]	348 [mm]
Instrument – Monopolar Scissors *(CE marked and 510k pending)	9 [mm]	345 [mm]
Disposables Set (Cable, Arc, Pads)		



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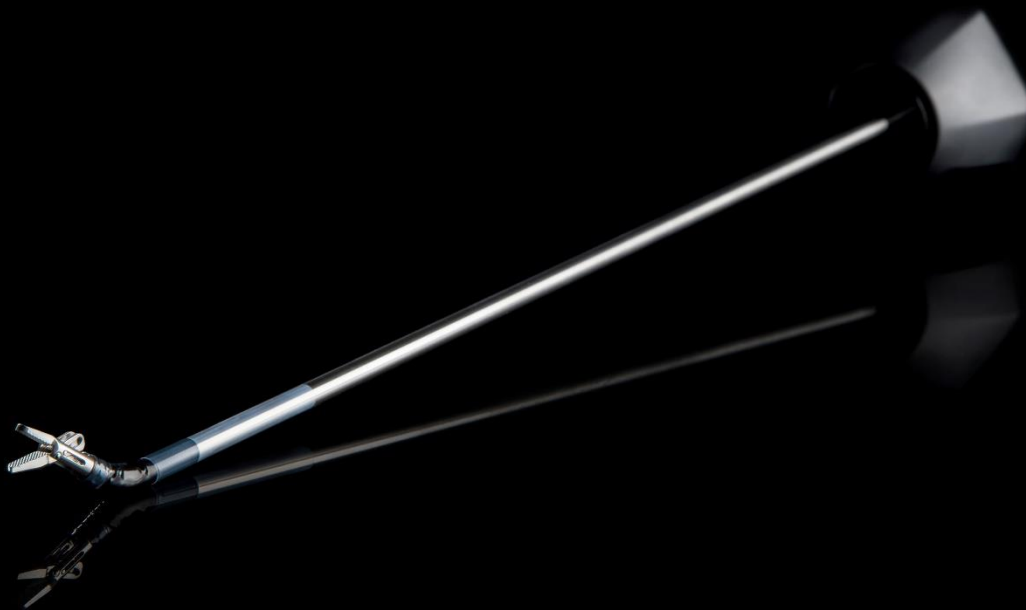
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Needle Holder



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Fenestrated Grasper



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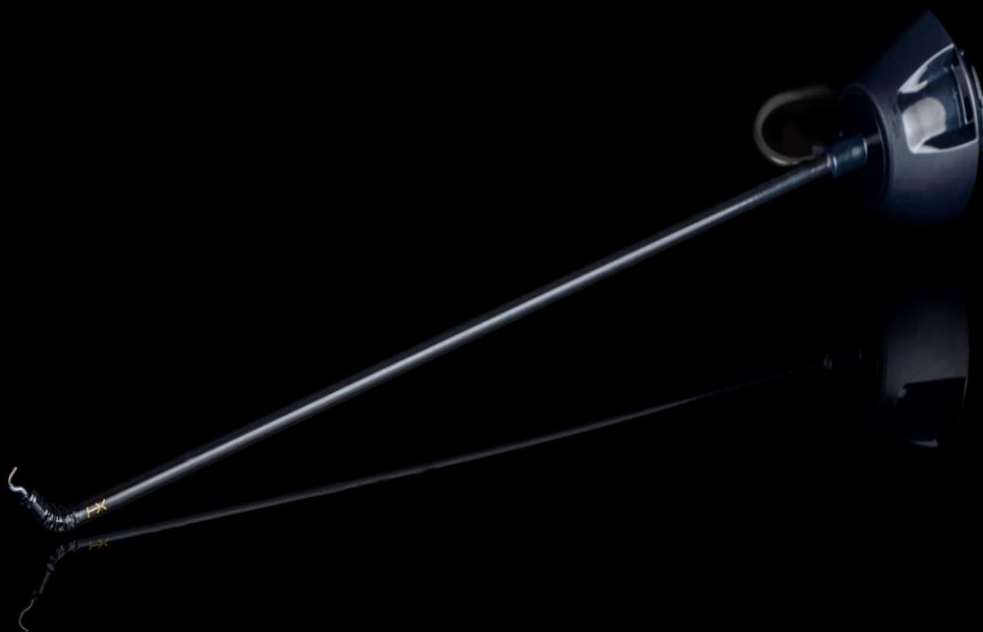
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Monopolar Hook



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Monopolar Spatula



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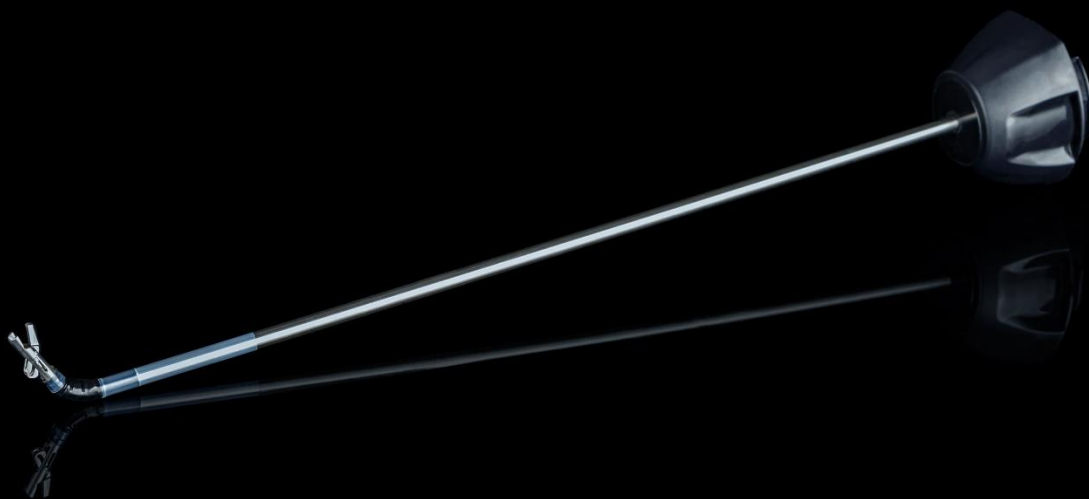
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Self-Righting Needle Holder

(CE marked and 510k pending)



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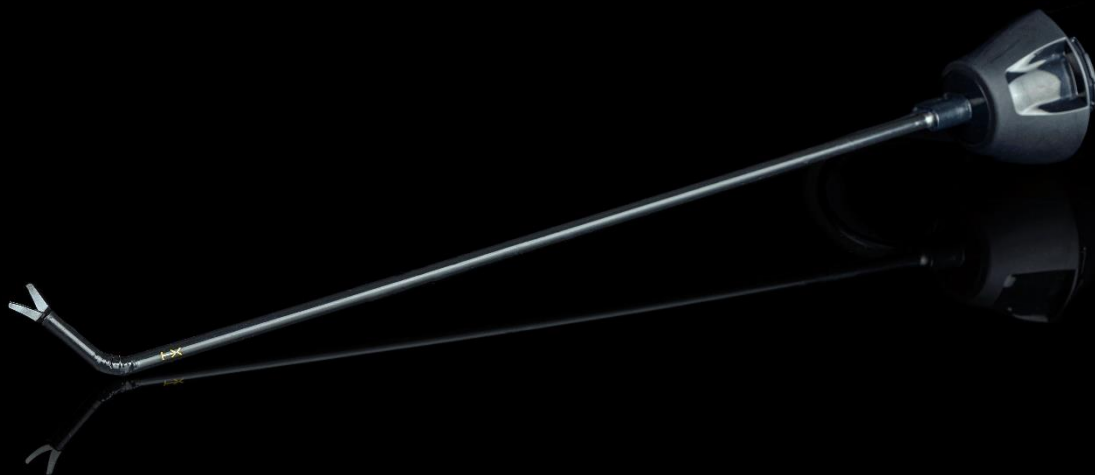
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Monopolar Scissors

(CE marked and 510k pending)



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DISPOSABLE SET



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Contact Us!

We believe in technology that extends the human capacity and has more of that human touch.

Be part of the leap forward in minimal invasive surgery (MIS).

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