DA VINCI Xi. SINGLE-SITE® TECHNOLOGY

At Intuitive Surgical, we strive to make surgery more effective, less invasive, and easier on surgeons, patients, and their families.
• CANNULAS
A curved design triangulates instruments internally and separates arms externally, maximizing range of motion and minimizing collisions.

• PORT
The 5-lumen port fits through a 25-mm incision and holds two Single-Site instruments, a 3D-HD endoscope, an insufflation channel, and a 5-10 mm assistant cannula.
The Wristed Needle Driver provides surgeons additional dexterity while suturing.

INSTRUMENT SUITE

- 5 mm Maryland Dissector
- 5 mm Hem-o-Lok® ML Clip Applier
- 5 mm Suction Irrigator
- 5 mm Cadiere Grasper
- 5 mm Curved Scissors
- 5 mm Fundus Grasper
- 5 mm Crocodile Grasper
- 5 mm Maryland Bipolar Forceps
- 5 mm Curved Needle Driver
- 5 mm Permanent Cautery Hook
- 5 mm Fenestrated Bipolar Forceps
- 5 mm Wristed Needle Driver
**SYSTEM**

**SOFTWARE**
*da Vinci System* software re-configures the surgeon’s hand controls so they experience intuitive movement when using *Single-Site* instruments.

**REMOTE CENTER**
Intuitive Surgical’s remote center technology minimizes port-site movement and trauma at the incision site.
FIVE-STEP SETUP

da Vinci Xi Single-Site setup follows the same principles used in da Vinci Xi multi-port setup while adding unique setup features to maximize the advantages of Single-Site technology.

THESE ENHANCEMENTS:

- Adjust the da Vinci Xi System to an appropriate starting position
- Facilitate reproducible setup
- Minimize external arm interferences
- Maximize range-of-motion

DEPLOY FOR DOCKING

PERFORM TARGETING

INSERT CURVED CANNULAE AND PERFORM MANUAL ARM ADJUSTMENTS

DRIVE LASER LINES TO ENDOSCOPE PORT

SINGLE PORT PLACEMENT

PORT INSERTION
FROM THE DA VINCI Si® SYSTEM TO THE DA VINCI Xi® SYSTEM, AN EVOLUTION IN SINGLE-SITE SURGERY

da Vinci Si Single-Site technology became a prominent robotic single-port platform on the market. The da Vinci Xi System improves this platform with new technology, access, and usability.

**IMPROVED OPTICS**

The da Vinci Xi 8 mm endoscope provides the surgeon a clearer view of the surgical field. FireFly® fluorescence imaging is integrated to highlight specific tissues such as vessels and bile ducts.

**EASIER SETUP**

A single-fin attachment system makes docking easier and faster. Specific Single-Site features like two-button clutching and a guided walkthrough improve OR team usability.

**GREATER PATIENT ACCESS**

The boom-mounted architecture of the da Vinci Xi System provides docking from any angle and improves access around the patient.

The redesigned arms provide greater internal range of motion while improving patient access and minimizing external collisions.

**ADVANCES**

- Brighter image
- Higher resolution
- Longer endoscope
- Integrated FireFly® Fluorescence Imaging
- Easier docking
- Two-button clutching
- Guided walkthrough
- Dock from any angle
- Increased range of motion
- More space for patient-side assistant

*As compared to the da Vinci Si Surgical System*
THE ADVANTAGES OF THE DA VINCI SURGICAL SYSTEM

• IMMERSIVE 3D-HD DISPLAY
  da Vinci technology provides a stable, immersive, highly magnified 3D-HD view of the surgical field while providing the surgeon autonomous, independent control of the camera.

• ERGONOMICS
  Multiple ergonomic adjustments provide comfort and reduce fatigue during surgical procedures.

• PRECISION
  Surgeon’s hand movements are scaled, filtered, and seamlessly translated to the instrument tips for precise instrument control.

• INTUITIVE MOTION
  Instead of counter-intuitive control found in other MIS approaches, da Vinci instrument movements mimic the surgeon’s hand movements.

• VERSATILITY
  The da Vinci System provides multi-port and single-incision surgery on a single platform—this versatility enables robotic surgery across multiple surgical specialties.
IMPORTANT SAFETY INFORMATION

Serious complications may occur in any surgery, including da Vinci® Surgery, up to and including death. Examples of serious or life-threatening complications, which may require prolonged and/or unexpected hospitalization and/or reoperation, include but are not limited to one or more of the following: injury to tissues/organs, bleeding, infection and internal scarring that can cause long-lasting dysfunction/pain. Individual surgical results may vary.

Risks specific to minimally invasive surgery, including da Vinci Surgery, include but are not limited to, one or more of the following: temporary pain/nerve injury associated with positioning; a longer operative time, the need to convert to an open approach, or the need for additional or larger incision sites. Converting the procedure could result in a longer operative time, a longer time under anesthesia, and could lead to increased complications. Contraindications applicable to the use of conventional endoscopic instruments also apply to the use of all da Vinci instruments. You should discuss your surgical experience and review these and all risks with your patients, including the potential for human error and equipment failure. Physicians should review all available information. Clinical studies are available through the National Library of Medicine at www.ncbi.nlm.nih.gov/pubmed.

Be sure to read and understand all information in the applicable user manuals, including full cautions and warnings, before using da Vinci products. Failure to properly follow all instructions may lead to injury and result in improper functioning of the device. Training provided by Intuitive Surgical is limited to the use of its products and does not replace the necessary medical training and experience required to perform surgery. Procedure descriptions are developed with, reviewed and approved by independent surgeons. Other surgical techniques may be documented in publications available at the National Library of Medicine. For Important Safety Information, indications for use, risks, full cautions and warnings, please also refer to www.davincisurgery.com/safety and www.intuitivesurgical.com/safety. Unless otherwise noted, products featured are available for commercial distribution in the U.S. For availability outside the U.S., please check with your local representative or distributor.

It is the responsibility of the owner of the da Vinci Surgical System to properly train and supervise its personnel to ensure that the instruments and accessories are properly cleaned, disinfected and sterilized as required by the User’s Manual. The da Vinci products should not be used in a clinical setting unless the institution has verified that these products are properly processed in accordance with the da Vinci System User’s Manual.

The da Vinci® Fluorescence Imaging Vision System (Firefly® Fluorescence Imaging) is intended to provide real-time endoscopic visible and near-infrared fluorescence imaging. The da Vinci Fluorescence Imaging Vision System enables surgeons to perform minimally invasive surgery using standard endoscopic visible light as well as visual assessment of vessels, blood flow, and related tissue perfusion, and at least one of the major extra-hepatic bile ducts (cystic duct, common bile duct and common hepatic duct), using near infrared imaging.

Fluorescence imaging of biliary ducts with the da Vinci Fluorescence Imaging Vision System is intended for adjunctive use only, in conjunction with standard of care white light and when indicated, with intraoperative cholangiography. The device is not intended for standalone use for biliary duct visualization.

Intuitive’s ICG packs are available for sale in the U.S. ONLY. Intuitive’s ICG packs are cleared for commercial distribution in the U.S. for use in combination with the fluorescence-capable da Vinci vision system and Firefly integrated hardware. Intuitive-distributed ICG contains necessary directions for use of ICG with Firefly Fluorescence Imaging. Using generic ICG with Firefly Fluorescence Imaging is considered off-label and is not recommended. Anaphylactic deaths have been reported following ICG injection during cardiac catheterization. Total ICG dosage should not exceed 2 mg/kg per patient. Anaphylactic or urticarial reactions have been reported in patients with or without histories of allergy to iodides.
The Intuitive Surgical® da Vinci Xi Surgical System (IS4000) are indicated for use by trained physicians in an operating room environment for endoscopic manipulation of tissue, grasping, cutting, blunt and sharp dissection, approximation, clipping, electrocautery, suction/irrigation and suturing during single incision laparoscopic cholecystectomy, benign hysterectomy and salpingo-oophorectomy with the da Vinci Xi Single-Site Instruments and Accessories, including graspers, dissectors, needle drivers, scissors, suction irrigators, monopolar cautery, bipolar cautery, clip appliers, 5 mm curved cannulae, 5 mm and 10 mm straight cannulae, 8 mm endoscope cannula, flexible and rigid blunt obturators, cannula seal, and the Single-Site Port.

The safety and effectiveness of this device for use in the performance of general laparoscopic abdominal surgery or general gynecological surgery procedures have not been established. The da Vinci Single-Site Instruments and Accessories are only intended to be used for single incision laparoscopic cholecystectomy, benign hysterectomy and salpingo-oophorectomy with the da Vinci Single-Site Instruments and the da Vinci Xi Surgical System (IS4000). There may be an increased risk of incision-site hernia with single-incision surgery.

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