

ABOUT US

AND THE SURGICAL TOOL THAT MOVES LIKE YOU DO



Imagine a
world in which
laparoscopic
tools gave you
articulation
AND intuitive
control

"FlexDex, a mechanical arm developed by a team at University of Michigan, could bring precision surgical procedures to hospitals that can't afford expensive surgery robots." - NBC

Our Mission

At FlexDex, we believe every instrument should work like our own hand and effortlessly transform instinct into action. To improve patient care everywhere, cost and complexity must be avoided. Our deliberate focus on efficient and elegant design extends intuitive control to minimally invasive instruments. FlexDex is a scalable technology with the potential for use in every country, for any surgeon, at any time.

"Achieving the Dexterity of a Robot in a Mechanical Device" - MedTech Strategist

FlexDex's platform technology precisely translates the surgeon's hand, wrist, and arm movements from outside the patient into corresponding movements of an end-effector inside the patient's body. Based on a simple, purely

mechanical, and affordable design, FlexDex greatly enhances the capabilities of MIS instruments.

The FlexDex Needle Driver, launched in January 2017, simplifies suturing in difficult to reach areas through the use of intuitive, articulated movements and rotations. Future generations will include additional MIS tools and functionality.



FlexDex provides the functionality of robots at the cost of traditional hand-held laparoscopic instruments. We've disrupted the paradigm where surgeons and hospitals had to choose between high cost/high function and low cost/low function. Our mission is to democratize minimally invasive surgery and expand its use around the U.S. and the world.

How it Works

FlexDex has a three-axis gimbal that attaches to a surgeon's wrist. Once attached, it leverages a series of mechanical components to translate the movement of the surgeon's hand to the tip of the instrument.



WHY FLEXDEX

A COMPARISON TO OTHER OPTIONS

Traditional Laparoscopy

The benefits of laparoscopy when compared to open surgery have been well established and include faster recovery, shorter length of stay, and less post-op pain. Despite these benefits, complex intracoporial suturing remains a challenge for many surgeons and has been a major contributor to the growth of robotic surgery.

Robotic Surgery

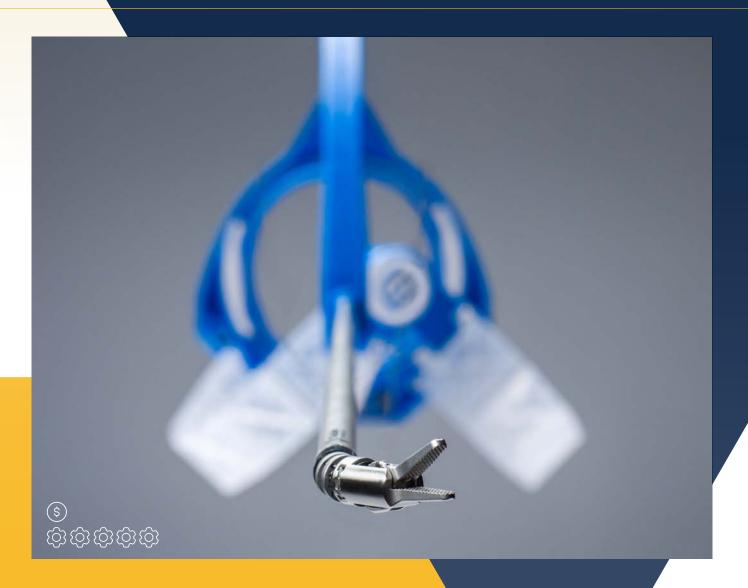
Robotic surgery offers high dexterity allowing surgeons to perform complex intracoporial suturing with greater ease and precision. However, data supporting its clinical benefit is lacking when compared to laparoscopy, nonetheless, it requires use of a multi-million dollar platform with high on-going costs, a dedicated support team and imposes limits on O.R. productivity.











Laparoscopy with FlexDex

FlexDex is a laparscopic platform technology that offers laparoscopic tactile feedback, intuitive control, and robotic-like dexterity. It requires no capital investment, no maintenance contract, and can be used in any O.R. at anytime.



