



THE NEXT GENERATION OF

Surgical Robotics

The world is facing a shortage of surgeons of between 15,800 and 30,200 by 2034 across subspecialties¹.

And the proportion of people over age 65 will grow from 1 in 11 in 2019 to 1 in 6 in 2050².



This means a **demand for surgeries**.

And existing **surgical capabilities are limited**.



Cataract surgeries



Hip and knee replacements



Hernia repairs

15-20%

of open surgeries develop a surgical incision-site hernia³



Existing surgical robots are limited by small working areas inside the abdomen

8.4%

of conventional single-port robotic surgical hernia repairs result in incidents due to their 2.5cm incisions⁴

THE FUTURE OF

Surgical Robotics

A new era in patient safety and **access to quality surgical care**.



VISION

- Can work and see **in any direction**
- Have increasingly **smaller sensors**, providing a surgical roadmap
- Offer **real-time data capture** to improve surgical precision



MOBILITY

- Require **smaller incisions**
- Are designed and developed to **reduce post-operative complications**
- Have robotic movements that are **equivalent to humans**

Next generation

surgical robots...



PRACTICALITY & COST

- Can **fit into** almost any OR
- Have **immersive reality technologies** that effectively put the surgeon inside the patient's body
- Have a **low cost of ownership**, making them accessible to more hospitals and surgeons



POTENTIAL

- Are designed to solve manual and **robot-assisted surgery shortcomings**
- Tap into a **\$136B market**, **96.8%** of which is unaddressed by robotics
- Have the ability to address most **abdominal procedures**

THE VICARIOUS SURGICAL ROBOT

Vicarious Surgical's robot is at the forefront of a revolution in surgical robotics, seeking to make high quality robot-assisted surgical care and patient and clinician experiences accessible to more people while reducing the overall cost of treatment.

Founded by entrepreneurs Adam Sachs and Sammy Khalifa, and surgeon Barry Greene, MD, Vicarious Surgical is supported by Bill Gates, Khosla Ventures, Eric Schmidt's Innovation Endeavors, Jerry Yang's AME Cloud Ventures, and Philip Liang's E15VC.

FOR MORE INFORMATION

VISIT [VICARIOUSSURGICAL.COM](https://vicarioussurgical.com)



1. The Association of American Medical Colleges, The Complexities of Physician Supply and Demand: Projections From 2019 to 2034.

2. United Nations Department of Economic and Social Affairs projections

3. Hope, Tuma. Incisional Hernia. <https://www.ncbi.nlm.nih.gov/books/NBK435995/>

4. Marks, JM, et al. Single Incision Laparoscopic Cholecystectomy is Associated With Improved Cosmesis Scoring at the Cost of Significantly Higher Hernia Rates. 2013.