

# U.S. Flexible Endoscopic Surgery Robot Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

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## Abstracts

U.S. Flexible Endoscopic Surgery Robot Market was valued at USD 326.4 million in 2024 and is estimated to grow at a CAGR of 14.7% to reach USD 1.3 billion by 2034.

The expansion is driven by the rising preference for minimally invasive procedures, coupled with advancements in robotic precision and AI integration. Flexible endoscopic surgical robots enable hospitals, ambulatory surgical centers, and healthcare providers to perform complex procedures with enhanced accuracy, flexibility, and improved patient outcomes. These systems support surgeries across gastrointestinal, urological, gynecological, and pulmonary domains and combine robotic assistance with AI, high-definition imaging, and real-time navigation for diagnostic and therapeutic applications. Technological innovations are increasing the safety, speed, and precision of procedures, while a growing prevalence of gastrointestinal and colorectal disorders, along with an aging population, further fuels market growth. Strong investments in robotic-assisted platforms, supportive reimbursement policies, and FDA approvals for new systems are accelerating adoption across major healthcare institutions. These robots allow surgeons to navigate complex anatomy, reduce complications, and shorten recovery time.

In 2024, the therapeutic segment held a 60.4% share, driven by higher adoption of minimally invasive procedures, improved precision, and increasing demand for complex surgical interventions. Hospitals and surgical centers are investing in robotic-assisted systems to achieve better control, dexterity, and access to hard-to-reach anatomical areas, particularly for advanced gastrointestinal, urological, gynecological, and pulmonary surgeries.

The urology segment held a 44.6% share in 2024 and is projected to reach USD 572.9 million during 2025-2034. Its dominance is attributed to the rising prevalence of urological conditions, increased awareness, and early screening programs, which drive demand for precision-guided robotic procedures.

South Atlantic Flexible Endoscopic Surgery Robot Market held a 19.4% share in 2024, supported by a high concentration of advanced hospitals and specialized ambulatory surgical centers actively deploying flexible robotic systems. Growing patient demand for minimally invasive, scarless procedures continues to boost adoption for gastrointestinal, urological, gynecological, and pulmonary applications.

Key players in the U.S. Flexible Endoscopic Surgery Robot Market include Asensus Surgical, CMR Surgical, Endo Tools Therapeutics, GI View, Intuitive Surgical, Johnson & Johnson, Medrobotics, and Medtronic. Companies in the U.S. Flexible Endoscopic Surgery Robot Market are focusing on strategic partnerships, technological innovation, and expanding their product portfolios to strengthen their presence. They are investing in AI integration, high-definition imaging, and real-time navigation enhancements to improve surgical precision and workflow efficiency. Firms are also increasing collaborations with leading hospitals and surgical centers to demonstrate clinical value, provide training, and expand adoption. Several companies are launching specialized solutions for targeted surgical domains, improving usability and reducing complexity for surgeons.

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