



Figure 1. Illustration of incision laparoscopic surgery

Technology Summary

Current cumbersome laparoscopic tools work by creating a series of incisions in the skin by which tools physically pass through, limiting angles and tool movement. The proposed technology allows for increased movement of laparoscopic tools through an innovative system of magnets and robotic manipulation. This approach is beneficial as it eliminates the need for more than one incision into the body, the user controls are identical to the current controls, and even greater tool motion is possible because the tools are not confined to a single port, potentially reducing the surgery time.

Application & Market Utility

The demand for laparoscopic devices was valued at \$12 million as of 2019 with expectations of growing to a market size of approximately \$19 million by 2027. Addressing a critical need for better surgical instruments in the rapidly growing field of minimally invasive surgery, the proposed invention allows for enhanced maneuverability and flexibility, allowing for improved precision and efficiency during procedures. Patients will benefit from this safe and more effective intervention, with surgeons likely to embrace it as the controls are incredibly like current user controls.

Next Steps

Moving forward, the crucial actions include licensing the technology to a surgical tech company specialized in laparoscopy-focused manufacturing. A strategic partnership would drive innovation in minimally invasive surgeries.

TECHNOLOGY READINESS LEVEL

4

Seeking

Investment | Licensing | Research

Keywords

- Laparoscopy
- Surgery

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