Washington University in St. Louis
Office of Technology Management

ROTOSCOPE - A SELF-CLEANING ENDOSCOPE

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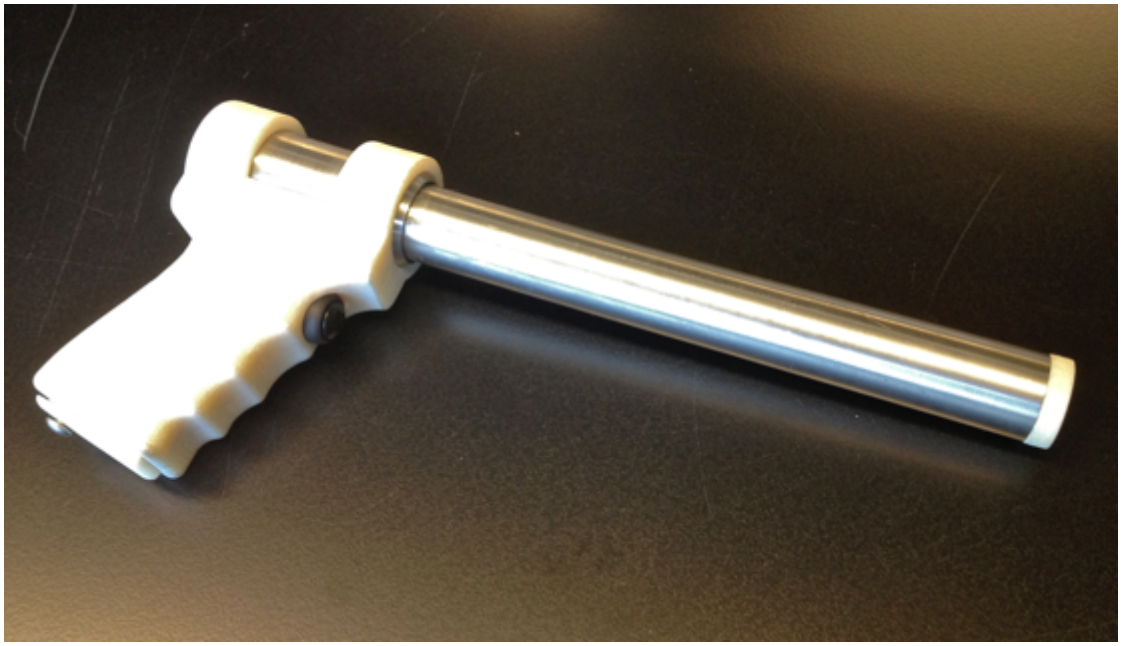
Technology Description:

Drs. Eric Leuthardt and Guy Genin have devised a medical device designed for faster and safer endoscopic surgeries. During these surgeries, the camera lens of the endoscope can become obscured with blood, fog and debris. This slows down the procedure, as the surgeon has to remove the endoscope to clean the lens or risk operating with obscured vision. A solution to this problem is the Rotoscope, which employs centrifugal force to throw off debris from the camera lens. With the push of a button, the system can also deliver saline to clean the lens during surgery. This system could speed up surgeries, prevent surgeon fatigue, reduce patient time under anesthesia and increase the availability of operating facilities.

Stage of Research:

The inventors created a prototype of the Rotoscope, which is being used by Washington University surgeons. The inventors plan to miniaturize the technology to allow easier maneuverability in the body cavity.



Rotoscope Prototype

Application:

- **Endoscopic surgery**

Key Advantages:

- **Faster surgery times:** This device eliminates the need to remove and clean the endoscope, therefore saving the surgeon time in the operating room.
- **Improved patient safety:** Potentially reduces the risk of complications by lowering the amount of time spent under anesthesia.
- **Safe design:** The fluid supply for the saline doesn't rotate in the body cavity with the camera lens, making it potentially safer to use during surgery.

Publications:

Patents:

- **US Patent Pending US20180014720A1**

Related Web Links

- Eric Leuthardt Profile
- Guy Genin Profile