

# Apparatus for Insertion of a Medical Device During a Medical Imaging Process

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## Technology description

Device, Method, and System For Needle Insertion Inside a Medical Imager, From Within Body Cavity  
Technical Details:

The Invention is a device, computerized system, and methods for entering a needle into the body inside a medical imager such as a MRI scanner, CT, X-ray fluoroscopy, and ultrasound imaging, from within a body cavity (such as the rectum, vagina, or laparoscopically accessed cavity). A three degree-of-freedom mechanical device translates and rotates inside the cavity and enters a needle into the body, and steers the needle to a target point selected by the user. The device is guided by real-time images from the medical imager. Networked computers process the medical images and enable the clinician to control the motion of the mechanical device that is operated remotely from outside the imager.

Transrectal prostate biopsy (1 million cases /year in US)

## Institution

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