

# Intra-Cavity Miniature Portable Visualization System For Surgery

Tech ID: 22685 / UC Case 2007-197-0

## TECHNOLOGY DESCRIPTION

Researchers at the University of California , San Diego , Department of Engineering and the School of Medicine have invented a miniature, minimally invasive system for video-guided surgery which can be inserted into closed cavities through an opening of 10 mm. The system will supply an efficient and effective source of illumination, will acquire live video images within this cavity, and transmit them to a monitor located outside the cavity for observation. The new type of system will differ significantly from present cumbersome laparoscopic devices in that it will enable three-dimensional vision and auto focusing, with varying field-of-view optical zoom. The elements of the system would be inserted in the abdominal cavity through an existing incision and connected to a 2 mm support needle. It will have a 360 degree rotation range on the horizontal plane and a 250 degree rotation range on the vertical plane. The location of the camera within the cavity is readily changeable. Video processing will ensure that blur, even color dependent blur, will be corrected. Prototypes of the system are currently being tested.

## PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	8,860,793	10/14/2014	2007-197

## CONTACT

University of California, San Diego  
Office of Innovation and  
Commercialization  
[innovation@ucsd.edu](mailto:innovation@ucsd.edu)  
tel: 858.534.5815.



## OTHER INFORMATION

### KEYWORDS

surgery, camera

### CATEGORIZED AS

- ▶ **Imaging**
  - ▶ Medical
- ▶ **Medical**
  - ▶ Devices
  - ▶ Imaging

### RELATED CASES

2007-197-0, 2008-314-0, 2006-193-0