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## One touch -non PC based- digital recording during otolaryngological endoscopic examination

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## Title page

### **One touch -non PC based- digital recording during otolaryngological endoscopic examination**

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## **One touch -non PC based- digital recording during otolaryngological endoscopic examination**

Sir,

Video recording during endoscopic otolaryngological examination, allows medical record documentation and facilitates the follow-up care, as well as serving for teaching purposes, comparative studies and patient education<sup>1-3</sup>. Although available digital recorders can provide otolaryngologists with high-resolution video files, they still remain bulky and expensive. The aim of this paper is to present a portable -high resolution- digital recording system, which can directly capture the video signal from any endoscopic system, just at the touch of a button, without the use of a PC.

The Pinnacle systems "Pinnacle Video Transfer" device was used, for capturing video signal. A USB 2.0 flash storage stick was connected to the capturing device. An S-video-to-S-video cable was used to connect the endoscopic coupler to the recording device (Fig 1). The endoscope is next connected to both the light source and the endoscopic coupler. No PC/ other hardware or any extra software is required.

The external capturing device rapidly copies the analog signal from any video source in MPEG-4 format to any USB 2.0 storage device without using a PC. Any available USB 2.0 compatible storage device (eg. external hard disc drive, iPod, mobile phone or flash stick) can be connected to the recording

device via the built in port. This recording system provides high-quality MPEG-4 video files encoded in H.264 at up to 720x480/576 (NTSC/PAL).

One of the main advantages of the proposed system is its low cost, which does not exceed £ 100-110, including the cost of the flash storage stick. The system also appears to have significant advantages compared with the classic recording systems, which are mainly based on DVD recorders. Such systems usually do not support direct recording to storage devices and they produce a video file that is difficult to be transferred or edited, mainly because of its size and format<sup>1,2,4</sup>. Most of the proposed low-cost digital recording systems that do not use the classic DVD recording devices are PC based<sup>1,2,4</sup>. On the contrary, the proposed system is non PC based and provides a high resolution compact video file directly recorded to any connected storage device. The capture time is theoretically unlimited, depending on the capacity of the storage device. Overall, it is a fully portable, high resolution digital recording system that can be carried easily and used with every endoscope or other medical video source for both diagnostic and educational purposes.

### **Conflict of interest**

None to declare

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## Figure legend

**Figure 1:** Setup of basic connections.

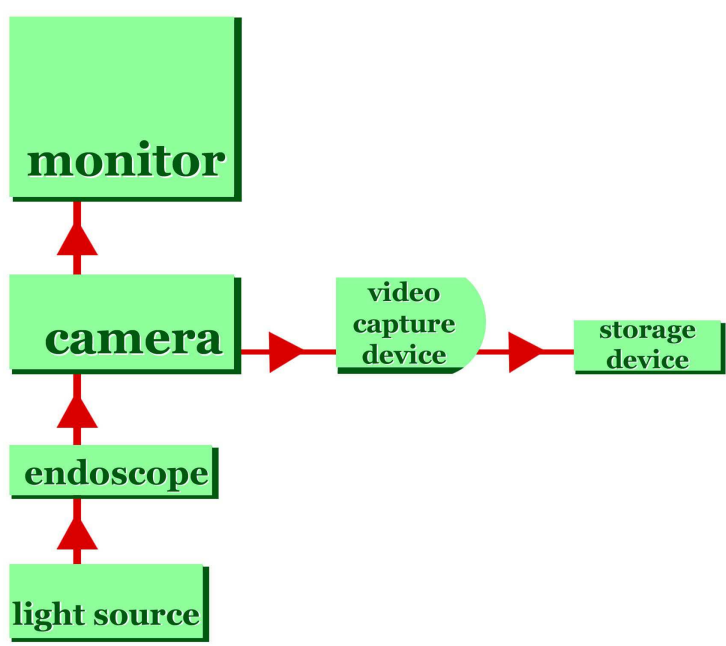


Figure 1: Setup of basic connections.  
296x215mm (200 x 200 DPI)

Review