

# Holographic Video

In the 2003 movie 'Paycheck', Ben Affleck plays a computer engineer who invents – among other things – an inexpensive and compact 3D holography system. Now a team of scientists in the US have come up with a similar system that will work with PCs and gaming consoles.

The days of boring two-dimensional computer and TV displays could be numbered if a team of US scientists have their way. The group of MIT researchers have developed a holographic video system that works with computer hardware such as PCs and gaming consoles. Apparently the 3D display provides resolution as high as an analogue TV and what's more, it should be relatively cheap to produce.

As well as the fun stuff – TV and games – there are limitless possibilities for holographic video displays in the medical world. Imagine MRI and CT scans for example. Then there's the opportunities for design applications in 3D – cars, furniture, architecture and so on.

The system is actually a third generation version which dates back to the 1980s. Whereas the Mark 1 version was unsophisticated and unreliable, the team have worked tirelessly to develop the new system - called Mark III - into a user-friendly and affordable consumer product.

The Mark III has 3 main advantages over earlier versions. Firstly, it relies on a standard graphics processor rather than unique specialised hardware. Indeed, the type of graphics cards typically found in high-

end PCs and gaming consoles are a good fit for the type of image processing required to create a hologram. Secondly, the team have developed an acousto-optic modulator – a device which directs light from lasers to form the hologram.

Finally, the team have shrunk the size of components to create a compact working system.

Although still under development, it's possible a fully working version of the Mark III may be available within a few months.

