

Applications:

- Presentations and demonstrations
- Entertainment projection environments
- Business
- Education and research projection environments

Benefits:

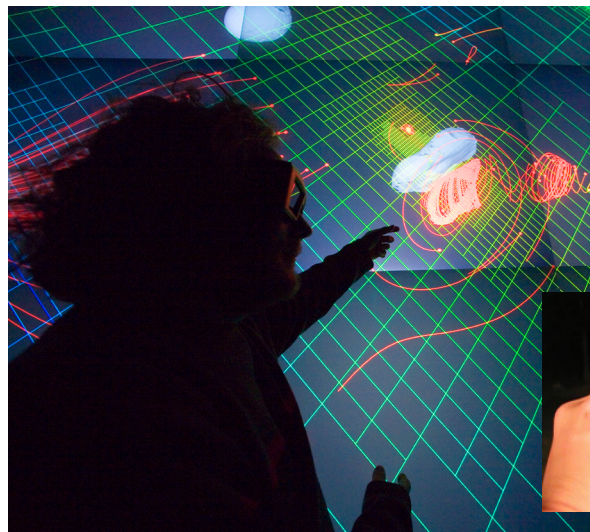
- More effective 3-D image presentations than currently possible
- Enhanced audience experience
- Improved interaction with complex imagery, e.g., proteins, star maps, engines, internal organs, etc.
- Stand-alone device
- Lightweight and easy to use
- Low cost of manufacture

Contact:

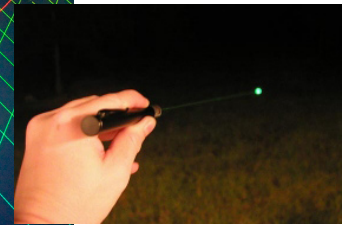
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The 3-D Laser Pointer assists researchers who work in complex 3-D immersive environments.



Summary:

While 3-D projection systems have become increasingly accessible for research modeling and simulation as well as for entertainment environments, there are currently no 3-D laser pointers in the market, despite the increased presentation effectiveness sought by current users of these systems.

Based on the need for such a device, Los Alamos National Laboratory (LANL) researchers have developed a 3-D laser pointer that is a lightweight, hand-held laser emitting device that projects a single point of light into three-dimensional space. When used in conjunction with active stereographic 3-D image systems, such as the Laboratory's PowerWall, CAVE, and RAVE facilities, the laser can be trained on a single point within a 3-D image. The projected laser point is perceived by all members in an audience as the same point of interest relative to the projected 3-D image—a crucial attribute. Thus the 3-D laser pointer will greatly enhance demonstrations and presentations projected by active stereographic systems.

The pointer uses a manual slider control to manipulate the laser point's distance in the z-plane, and otherwise functions the same as a 2-D laser device in the x- and y-planes. This feature enables the user to precisely focus the point of light on target within the 3-D image. The LANL 3-D laser pointer promises to be a low-cost, easy to use solution for the very difficult problem of focusing a point of light into 3-D space.

Development Stage:

An early stage prototype of the 3-D laser pointer has been developed and tested at LANL; however, substantial modifications are still required to make the technology a commercially viable product.

Patent Status:

Patent pending

Licensing Status:

This technology is available for exclusive or non-exclusive licensing.

www.lanl.gov/partnerships/license/technologies/

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