

across each panel 140. When the panels are mounted together, a three dimensional matrix of pixels is formed capable of displaying a three dimensional model of an object. The display utilizes transparent wiring as discussed above to further enhance light transmission through and out of the display. The LEDs 142 are sized and made be constructed so as to minimize disruption of light flow through the display. In this way an object can be displayed by displaying the contour of the modeled object at the appropriate LED location as discussed above in a near hologram fashion. Through appropriate software, the model can be rotated or cross-sectioned, etc. to increase the diagnostic and educational value of the model.

FIGS. 15 and 16 show an alternative embodiment of a three-dimensional display having a controlled vapor system. A three-dimensional display is shown as a video game. A standard video game case 312 is shown for housing the display. A number of moveable display elements 314 are shown moveable toward and away from the user 316. The rods 314 are programmed to simulate a three-dimensional object such as a vehicle as shown in FIG. 15. by moving the rods independently to the contour of the model as discussed above. However, in this embodiment the display elements do not contain lighting elements in the rods themselves and therefore are not required to be made of transparent materials. Instead a number of external lighting elements 320 are provided around the case 312. The lighting elements 320 are preferably lasers which can be focused on a particular area by moving the lasers or preferably by cooperating mirrors (not shown). By selectively directing the light on the appropriate display elements 314 the three-dimensional display can include an overlapping image of the object to enhance the appearance of the three-dimensional display. The lighting elements 320 preferably include red, green and blue lights to provide the display with the full spectrum of colors when needed. The display elements may extend far enough to contact and interact with the user or may be enclosed within a transparent display to protect the system.

To enhance the display further, a novel vapor control system is included to increase the over all appearance of the display. Each of the display rods 314 is provided with vapor vents. The vapor vents 322,324 are provided in two different categories - vapor release vents 322 and vapor suction vents 324. The control rods 314 can be provided with vents that are constructed to have designated vents 322 that only expel vapor and other vents 324 that always suction vapor, or the vents may have a control system that determines whether a particular vent will expel or suction vapor depending on the needs of the system.

As shown in FIG. 16, the top most display element 314 is releasing a controlled amount of vapor to the environment around the display element through vents 322. Cooperating display elements vents 324 provided at the bottom of FIG. 16 withdraw vapor at a matched rate to the release of the vapor to provide a fixed amount of vapor in the display area. The vapor, which is preferably steam, acts as a dynamic screen to reflect the light from the lighting elements 320. The cooperating display elements 314 and vapor screen 326 enhance the resolution and overall quality of the three-dimensional display and provide an enhanced three-dimensional effect to the display. The case 312 may be sealed to contain the vapor or open to enhance the effect of the vapor.

It is to be understood that the present invention is not limited to the sole embodiment described above, but encompasses any and all embodiments within the scope of the following claims.

I claim:

1. A three dimensional display system for displaying an image from a digital signal, comprising:

a plurality of display elements linearly moveable parallel to a first axis;

means for moving at least one of said display elements in response to the remotely broadcast signal a predetermined distance and direction parallel to said first axis to create a representation modeling said image to provide a three dimensional representation of said image.

2. A three dimensional display system for displaying a representation of a three dimensional image from a digital signal, comprising:

a grid of display elements linearly moveable about a first axis; each of said display elements having a cylindrical, elongated body including a plurality of multi-colored light emitting side elements along the elongated body and a plurality of light emitting top elements at a first end of said elongated body;

an electro-mechanical coil about a second end of each of said plurality of elongated bodies for moving said elongated bodies a predetermined distance and direction parallel to said first axis;

a control circuit for receiving the digital signal and transmitting a corresponding motion control signal to said electro-mechanical coil to energize said coil to move said plurality of elongated body said predetermined distance and direction parallel to said first axis;

a color control circuit for receiving the digital signal and transmitting a corresponding color control signal to cause said multi-color light emitting side elements and said multi-color top elements to display a predetermined color and brightness;

wherein said control circuit motion control signal moves said grid of a plurality of elongated bodies to a configuration representing the three dimensional image and said color control circuit causes said multi-color light emitting side elements and said multi-color top elements to emit a color pattern to simulate the coloring of said three dimensional image.

3. A method of displaying a three dimensional image comprising:

(A) providing a three dimensional display system having a plurality of display elements linearly moveable about at least a first axis;

(B) providing a motion controller on said display system for moving at least one of said plurality of display elements;

(C) creating a digital signal of an image to be displayed;

(D) transmitting the digital signal to said display system; providing a motion control circuit on said display system for receiving a digital signal of representation of said image.