**Introduction:**

The **Heliodisplay** is a [free-space display](http://en.wikipedia.org/wiki/Free-space_display) developed by IO2 Technology. A projector is focused onto a layer of mist in mid-air, resulting in a two-dimensional display that appears to float. This is similar in principle to the [cinematic](http://en.wikipedia.org/wiki/Cinematic) technique of [rear projection](http://en.wikipedia.org/wiki/Rear_projection). As dark areas of the image may appear invisible, the image may be more realistic than on a [projection screen](http://en.wikipedia.org/wiki/Projection_screen), although it is still not [volumetric](http://en.wikipedia.org/wiki/Volumetric_display). Looking directly at the display, one would also be looking into the projector's light source. The necessity of an oblique viewing angle (to avoid looking into the projector's light source) may be a disadvantage.

Heliodisplay can work as a free-space [touchscreen](http://en.wikipedia.org/wiki/Touchscreen) when connected to a PC by a [USB](http://en.wikipedia.org/wiki/USB) cable. A PC sees the Heliodisplay as a pointing device, like a mouse. With the supplied software installed, one can use a finger, pen, or another object as cursor control and navigate or interact with simple content.

The mist is formed by a series of metal plates, and the original Heliodisplay could run for several hours on one liter of tap water.[[1]](http://en.wikipedia.org/wiki/Heliodisplay#cite_note-0) 2008 model Heliodisplays use 80 [ml](http://en.wikipedia.org/wiki/Litre#SI_prefixes_applied_to_the_litre) to 120 ml of water per hour, depending on screen size and user settings, and can be built with any size water tank.

The Heliodisplay was invented by Chad Dyner, who built it as a five-inch prototype in his apartment before patenting the free-space display technology, and founding IO2 Technology LLC to further develop the product.

**Projecting Video Images into Free Space with the Heliodisplay!**

Computer Video With No Screen  
  
Science-Fiction meets reality with this new video display technology.  
  
The Heliodisplay includes patented and patent pending technology to transform normal ambient air and display video images into free-space. Some Heliodisplay models are interactive allowing a finger or hand to move images around in the air as if one were grabbing a tangible object.   
  
The Heliodisplay requires a power outlet, and a computer, TV, DVD or alternate video source. The current version of the Heliodisplay projects a 22' to 42' (depending on model) diagonal image that floats above the device.   
  
The Heliodisplay system is backward compatible and accepts most 2D video sources (PC,TV, DVD, HDTV, Video game consoles). For connection to a computer, the Heliodisplay uses a standard monitor VGA connection; for TV or DVD viewing, it connects using a standard RGB video cable.  
  
Interest in this new technology has been so strong, that curious visitors have crashed IO2Technology's website.

Applications :

 Advertising and Promotion, e.g.: trade shows; in-store displays; museum, movie and casino displays; theme parks.

 Collaborative Decision Making, e.g.: board meetings and presentations; command and control; architectural and engineering design; teleconferencing.

 Simulation & Training, e.g.: virtual targets; pre-operative planning.

 Consumer, e.g.: video games; home theatre.  
  
Less Obvious Examples:

 Transparent teleprompter.

 Heads-up displays in new fields.

 Build one into a door jamb and have a walk through image or virtual privacy screen.

 An in-store end cap advertising display and demonstration through which the customer can reach and grab shown product.

 Build the Heliodisplay into furniture, e.g. project from desk.  
  
While the new video capability will doubtless usher in a new era in computing and home entertainment, I wouldn't rush out and buy one just yet. That is, unless of course you have a burning desire to part with some extra cash in hurry.  
Odds are that the price is out of line for most people. Also, all the kinks in the system are probably not perfected yet.

**Reference:www.wikipedia.com**