

INTERACTIVE REAR PROJECTION DISPLAY SHOWCASE

FIELD OF THE INVENTION

This invention relates to a rear projection display showcase, and in particular, a large screen user interactive rear projection display showcase where a product can be displayed with interactive multimedia being shown.

BACKGROUND OF THE INVENTION

It is common in the market to see large screen interactive rear projection display. The conventional system utilizes a standard TV monitor placed on a touch position sensor. A control operates with the output touch signals from the touch position sensor to produce frame signals representative of the video frames recorded on a laser disk.

SUMMARY OF THE INVENTION

In accordance with one aspect of the present invention, there is provided an interactive rear projection display showcase comprising: (a) a screen configured to display an image being projected by an image projection means, wherein a product display opening having an exhibiting platform formed on the screen; wherein a plurality of touchscreen sensors are formed on the screen; and (b) a PC linked between the projection means and the screen such that interactive multimedia is accessible by touching the touchscreen sensors on the screen.

Yet another object of the present invention is to provide an interactive rear projection display showcase, further comprising (c) support means for supporting the screen in vertical and at a distance where the projected images from the projecting means are focus thereon.

Still yet another object of the present invention is to provide an interactive rear projection display showcase, wherein the screen comprises a glass and a rear projection film, and the projection film has an opening to allow the exhibiting platform to stretch out.

A further object of the present invention is to provide an interactive rear projection display showcase, wherein the touchscreen sensors are configured at the lower section of the screen, facilitating user to operate the display showcase.

Still yet another object of the present invention is to provide an interactive rear projection display wherein the screen is a translucent display screen, and the rear projection film is adhered to the glass by a spray adhesive and is removable.

In order to maximize the display screen within any allocated space, the projection means may be removably mounted at the rear of the screen without needing to alter the focal length of the projector.

BRIEF DESCRIPTION OF THE DRAWINGS

The advantages and utilities of the apparatus of the present invention will be more fully understood with reference to the following description and drawings wherein:

FIG. 1 is a schematic view of a preferred embodiment of an interactive rear projection display showcase in accordance with the subject invention;

FIG. 2 show the front view of the screen of the display showcase and show a schematic view the arrangement of the interactive rear projection display showcase in accordance with the present invention.

Description

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIG. 1, there is shown a preferred embodiment of an interactive rear projection display showcase in accordance with the present invention, indicated generally as 100. The display showcase 100 comprises a glass 120 having an product displaying opening 130, being mounted vertically and supported by a base (not shown); a projecting means 200 and a PC 300 connecting the display showcase 100 to the projecting means 400.

Preferably, the display showcase 100 is of a size and shape which a user can be comfortably used when the user of the showcase 100 is standing or sitting on a chair in the course of operation.

Referring now to FIG. 2, there is shown the front view of the display showcase 100 together with the connection of the PC 300, and a projecting means, which is the

projector 400. The glass 120 is provided with a plurality of touchscreen sensors 200 and are configured at the lower section of the glass 120, facilitating a user to operate the display showcase 100.

In the preferred embodiment, the interactive rear projection display showcase 100 has a translucent display screen. A rear projection film 124 is positioned at the back of the glass 120 and is mounted by spray adhesive or any other methods and the projection film is removable. Many other common method of mounting the projection film 124 to the glass 120 can also be used.

An exhibiting platform 134 which is used to hold a product for displaying is hinged out from the product displaying opening 130, and is configured in a position which a product can be securely held.

In accordance with the present invention, the projector 400 is moveably to move forward to or backward away from the glass 120 so as to produce the best focus of an image. The interactive film 124 is cut with an opening which corresponds to the glass 120 to allow an exhibiting platform or shelf 134 to be stretched out. The exhibiting platform or shelf 134 is hinged to the glass 120 at the lower edge of the opening 130.

The base (not shown) that supports the glass 120 may generally be of any shape which can securely support the glass 120, and it is strong enough to support display screen 120 and will withstand the pressure applied to it when a user touches the screen 120 of the showcase 100.

The projection means 400 is a projector and is positioned at the back of the screen 120. The distance between the screen 120 to the projector 400 is determined by the available space. The types of projector 400 may be a three colour rear projector, commonly available in the market.

In operation, the projected images on the showcase 100 provide information of the product displayed at the shelf 134, and a user can touch the touchscreen sensors 200 to access to the information that the user requires.

It should be appreciated that various changes may be made to the preferred and alternative embodiments described herein, without departing from the subject invention, the scope of which is defined in the appended claims.

Claims

1. An interactive rear projection display showcase comprising:
 - (a) a screen configured to display an image being projected by an image projection means, wherein a product display opening having an exhibiting platform formed on the screen; wherein a plurality of touchscreen sensors are formed on the screen; and
 - (b) a PC linked between the projection means and the screen such that interactive multimedia is accessible by touching the touchscreen sensors on the screen.
2. The interactive rear projection display showcase of Claim 1, further comprising
 - (a) support means for supporting the screen in vertical and at a distance where the projected images from the projecting means are focus thereon.
3. The interactive rear projection display showcase of Claim 1, wherein the screen comprises a glass and a rear projection film, and the projection film has an opening to allow the exhibiting platform to stretch out.
4. The interactive rear projection display showcase of Claim 1, wherein the touchscreen sensors are configured at the lower section of the screen, facilitating user to operate the display showcase.
5. The interactive rear projection display showcase of Claim 1, wherein the screen is a translucent display screen.
6. The interactive rear projection display showcase of Claim 1, wherein the rear projection film is adhered to said glass by a spray adhesive and is removable.
7. The interactive rear projection display showcase of Claim 1, wherein the exhibiting platform is hinged out from the product display opening.