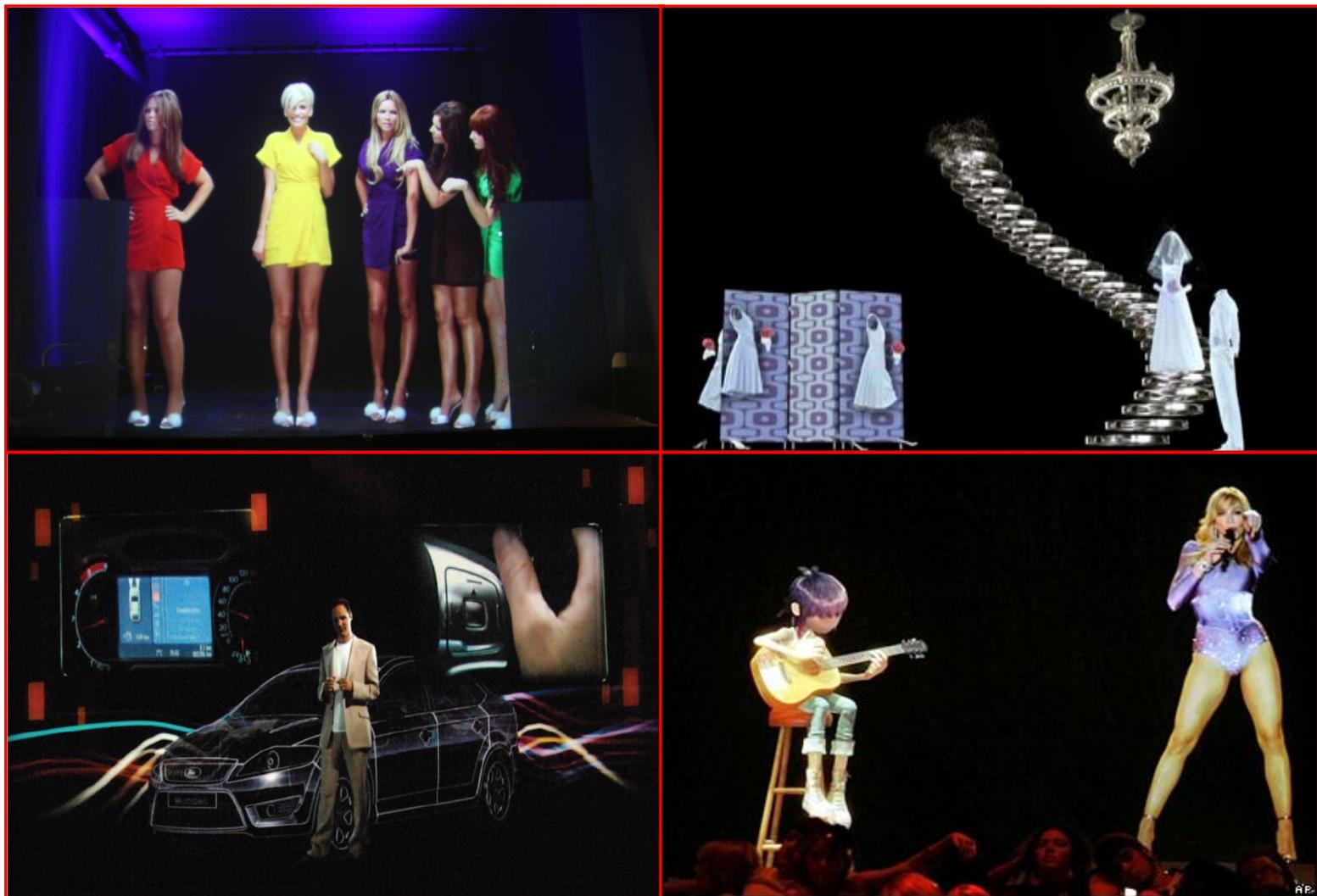


# Experience a new dimension



Musion<sup>®</sup> Eyeliner<sup>™</sup> 3D Projection System

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# 3D has arrived!

Musion® Eyeliner™ is a new and unique high definition video projection system allowing spectacular freeform three-dimensional moving images to appear within a live stage setting.

Musion® Eyeliner™ brings dramatic, previously unseen 21st century video film effects to a whole array of mediums both on stage and off, from artistic performances, conference and trade show presentations, retail window displays and large scale out-of-home digital signage.

Live presenters can appear alongside and interact with virtual images of humans or animated characters, much like the effect created for the Warner Brothers movie, "Who Framed Roger Rabbit?".

Watch all of your creative content come alive as dramatic, moving 3D images of amazing clarity. Even existing 2D video material is transformed into compelling footage running on giant 3D virtual screens created by the Musion® Eyeliner™ system.

Set sizes start from just 2m<sup>2</sup> sized cubes, and projected images range in size from 50cm square, up to a massive 20m x 100m. Content can include virtual humans, animations (cartoon or computer generated), full sized trucks, automobiles, landscape, property, scenery, machinery, and pharmaceutical / electronic components.



Musion® Eyeliner™ requires only single camera shoot, and single projector playback. It also eliminates the need for special audience props, such as 3D glasses.

The Musion® Eyeliner™ system is unique worldwide and protected by patents granted in countries all over the world, including USA, Japan and Europe.

When using Musion® Eyeliner™, your imagination is the only limit.

# 3D is exciting, affordable and available!

## How the Musion® Eyeliner™ System works

### Equipment Specifications

The Musion® Eyeliner™ system incorporates some very simple video principles and all equipment used is readily available to hire or purchase.

The primary components of a Musion® Eyeliner™ set up are:

- A video projector, preferably DLP with an HD card/minimum native resolution of 1400 x 1050 and brightness of 7 000+ lumens.
- For smaller cabinet installations, a high quality TFT Plasma or LCD screen can also be used.
- A hard-disc player with 1920 x 1080i HD graphics card, Apple or PC video server, DVD player.
- A Musion® Eyeliner™ Foil and a stage set.
- Lighting and audio as required
- Show controller (on site or remote)

Subjects are filmed in HDTV and broadcast on to the foil through an HDTV projection system, driven by HD Mpeg2 digital hard disc players, uncompressed full HD cam desks or HD Digital Video Servers.

The setup can be erected within a self contained four legged ground support or a bespoke cabinet. Alternatively, the foil can be stretched into a truss framework and flown from its own hanging points.

In either configuration, Musion® Eyeliner™ allows for a full working stage or set to be constructed behind the foil. As such, live actors or performers, as well as virtual images are able to interact in a way that it appears to the audience that all of the objects they are seeing are on stage.

It is therefore quite conceivable to have a live performer sing a duet with a 'virtual' partner, a cartoon character or even their projected double.

All the images used on a Musion® Eyeliner™ system appear as three-dimensional images, but are projected as two-dimensional images into a 3D stage set. It is the mind of the audience that creates the 3D illusion. This means that production costs are minimal, needing only the single camera lens for filming and a single projector for the playback.

Any one of the set-ups will allow a user of Musion® Eyeliner™ System to create the largest 3D floating images ever seen in the world.

### Why Musion® Eyeliner™? - Advantages of the System

#### 1 - Scale

A typical piece of Musion® Eyeliner™ Foil is 4.1m high in a continuous roll up to several hundred meters in length. A thinner, 8m high foil can also be used for larger installations.

In instances where even taller images are required sections of the 4m foil can be installed in a "portrait format" where each section is a maximum of 14m high by 4m wide, giving images approximately 11m high. Individual sections of foil are then overlapped and cut to fit leaving 1mm seams, which are barely visible from viewing distances greater than 7m.

#### 2 - Clarity of image

Musion® Eyeliner™ foil is less than 100 microns thick yet retains its durable characteristics once installed. Because the foil is so thin there is no drop shadow created when objects are projected onto it, as there would be using other so called 'holographic systems' or using glass or perspex. Foil allows greater amounts of projected light through for brighter images.

In simple terms the Musion® Eyeliner™ medium creates crisper, sharper and consequently more realistic representations of the object or person being projected than any other video screen medium.

#### 3 - Foil can be cut

Unlike glass, Musion® Eyeliner™ Foil can be cut even when it has been fully installed. This means that doorways and holes for props to protrude through the foil can be easily rigged up.

This opens up creative avenues for stage designers and choreographers to explore when using Musion® Eyeliner™ in conjunction with their other show plans.

#### 4 - Transportation

Musion® Eyeliner™ foil is a much more practical proposition when gaining access to venues through small doorways and with rigging/lifting issues, than other materials such as glass and Perspex.

There are no limitations as the foil is transported in 5m x 30cm lightweight pipes that can be easily carried by a couple of crew.

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# How the Musion® Eyeliner™ System works

## 5 - Safety

Musion® Eyeliner™ Foil is a far simpler and safer option than transporting large sheets of glass from venue to venue.

Musion® Eyeliner™ Foil cannot shatter and poses no danger to crew installing it or working along side it. It can be installed into moving scenery without fear of it breaking as it is moved. This means that it is a very straight forward process to fly the system in and out of stages as required.

Musion® Eyeliner™ Foil is also certified fireproof to grade B1.

## 6 - Rigging time

Foil is typically rigged in a couple of hours. The rigging process is straight-forward and Musion® Eyeliner™ installers can work alongside other technical crew. Once installed, the process of tensioning the foil takes a few minutes of adjustment.

## Practical Considerations When Using Musion® Eyeliner™ system

### Environmental

#### 1 - Wind

Musion® Systems has undertaken numerous outdoor jobs but there is always the chance that wind will blow onto the foil and affect the projected image.

The way to alleviate this problem is to build a wind-break around the installation. This method has proved highly successful at previous shows where it has been implemented.

#### 2 - Strong daylight

In any situation where projectors are being used as a source of video, daylight will always prove an issue. Manufacturers have made great strides in the last couple of years with the brightness of their projectors (currently Barco offer a 30 000 lumen projector) however there will never be anything available that will be able to compete with natural daylight.

In circumstances of strong natural daylight there is always the option to either create a controlled light environment or use the Musion® Eyeliner™ system with widescreen High Definition 3mm/6mm LED walls.

#### 3 - Space

It is important to remember that you need an area in front of the stage where the white reflective screen is positioned in the projection pit.

#### 4 - Stage Depth

In addition to leaving space for the projection pit, a space needs to be left behind the foil in order to add depth to the illusion. A minimum of 1m should be allowed.

In practice this means that the total area of a Musion® Eyeliner™ installation will be at least 4-6m deep.

## Retail Installations

Musion® Systems has frequently been used as a retail installation to promote trends for companies such as Armani and H&M.

Shop window installations need a minimum space of 3 x 3 x 3 meters. Installations work best in conjunction with 'whispering windows', a technology that allows passers by to listen in on the holographic display.

For such retail installations, it is important to keep in mind practical issues such as the need for air conditioning units, toned windows and ensuring external light sources such as street lighting is managed.

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Date of release: July 2008

