

# Syma Showcase

## Project A - The Interactive Table

The Interactive Table serves as a multi-purpose interface to control and create using only your hands. It is an intuitive, seamless, self-contained, re-usable element that can be applied to a large variety of customer requirements.

Our Interactive table should display some of these possible applications in a very functional and visually impressive fashion. It should offer customers a fresh way of displaying their requirements, while also providing a very good and simple interface to use in a large variety of locations and applications. The Interactive Table could be implemented with 5 main applications to display its potential. A discrete and elegant menu that hides when not needed would guide users through the demo. This menu, although very simple and intuitive, should have simple explanations of each of the demos.

This paper assumes we have the following equipment and technologies:

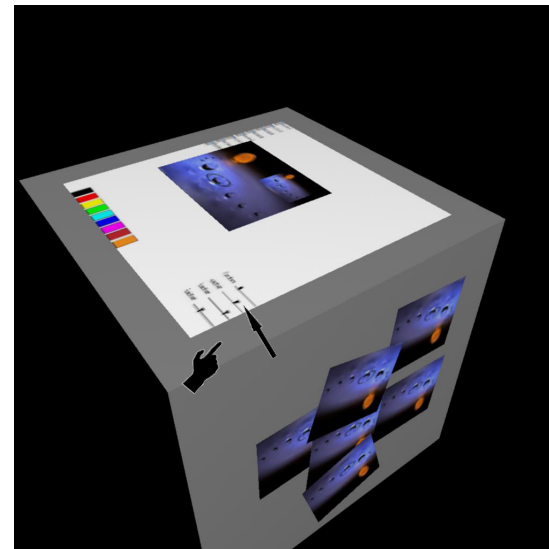
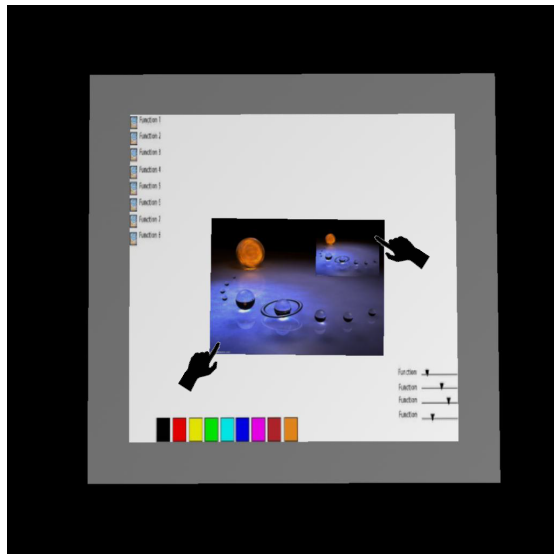
1. Projector and Camera to be used for surface motion detection and AR object recognition.
2. Camera Vision Software that can detect and recognize fingers on the screen and communicate it to other softwares locally or through network.
3. An improved system that allows detection of a gradient of the user's hand, interpreting with it the distance at which the hand is from the screen. This would allow us for at least two states, one when hovering the surface, and another when touching (ie. mouse move and mouse click).
4. Virtools 3D engine and Visual Studio 2008 licences.

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Project A - The Interactive Table - **1. The Picture Editor & Slideshow** (home, shop, show, presentation, ...)

## *Picture editing and preview application*

- Allows sliding through picture albums and slideshow functionality.
- Offers Picture Editing capabilities
- The software background/canvas is made of 2 3D sides (ie. two touching sides of a cube).
- One of these sides is a canvas where the user can drag, rotate, scale and edit a picture, the other is where all the available/library/folder pictures are located.
- If the user drags on the screen on an empty place, he/she can pan among the two sides.
- Dragging a pictures moves it, pinching it scales it, and rotating two fingers on a picture rotates it.
- An intuitive interface to manage and edit pictures that would behave just as the user expects.

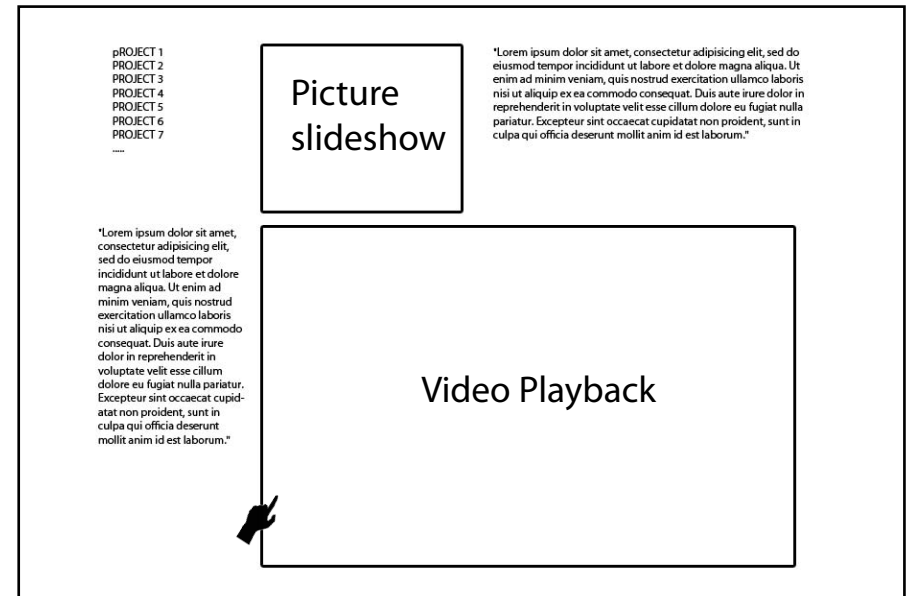
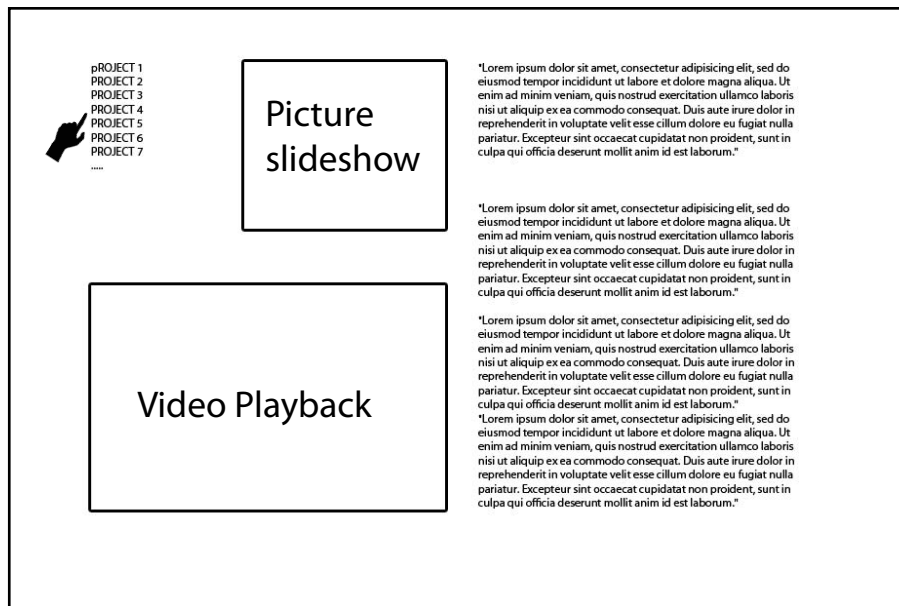


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Project A - The Interactive Table - **2. The Operation Interface** (shop, museum, portfolio presentation, ...)

*Operating system for showcasing portfolios*

- A “folder view” through a database of information, pictures, sounds and videos
  - It could serve as a info-point/kiosk for company products, as a museum/expo information point, as an interactive shop catalogue, etc..
  - A straightforward Operating system that allows users to navigate through vast amounts of data in a modern, simple and appealing way.
- The demo should contain a database of Syma’s projects, so we can re-use it as a standalone showcase.

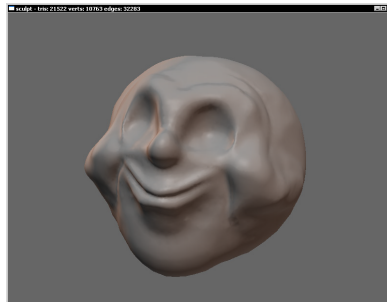
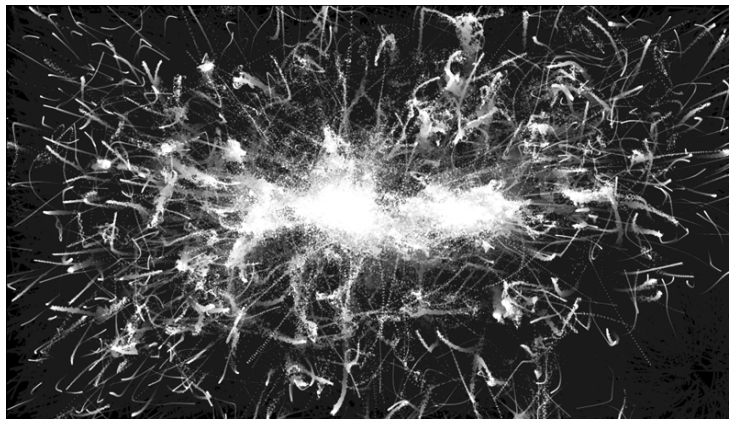


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Project A - The Interactive Table - **3. The Coolness Factor** (home, show, presentation, ...)

*A visually delicious interaction with the surface*

- An artistic expression application that allows users to create visual art by hovering over the screen with their hands.
- Two separate sections of this demo would offer a different visual experience. One could be made of particles and motion blurs that would give the user the feeling of painting with their hand.
- The other could be a 3D shape that can be re-modeled with hand movement. A 3D sculpting application if you will.
- This demo should represent the creative cool factor, not serve as a technical demo.

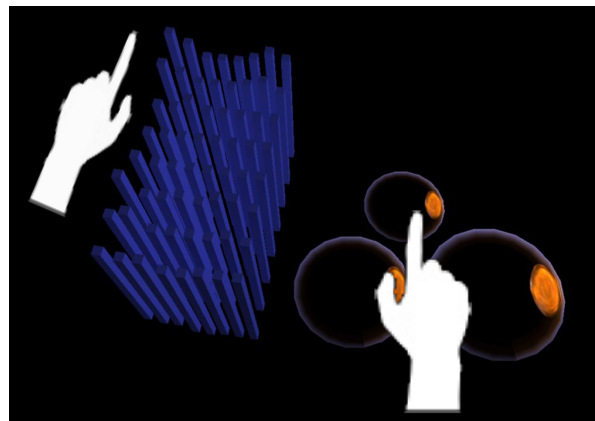
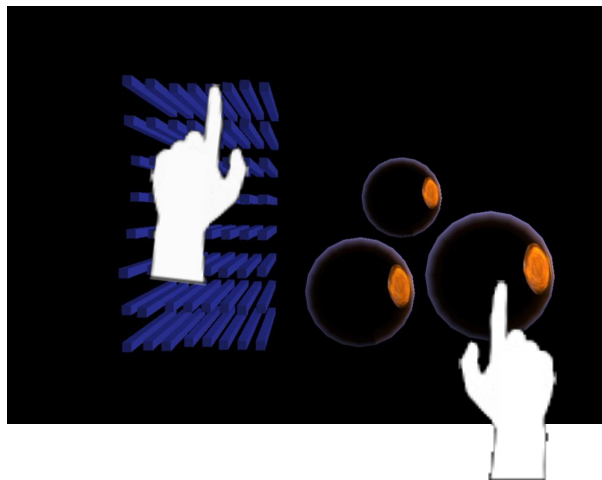


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Project A - The Interactive Table - **4. The Tablaphone** (home, show, exhibition, ...)

## *The alien instrument*

- This demo is a musical instrument controlled by touch and hover.
- It is divided in two areas (left and right) one that plays notes and the other that modulates their tones.
- The right hand can play various sounds in a drum-like fashion.
- The left hand can deform/modulate the notes played. Hand to screen distance and position define these values, while touching on specific points with the right hand allows to play various sounds.
- The visual reference is a set of circular shapes on the right side, thought of as drums and their behaviour.
- On the left side there is a grid of 3D columns that rise and lower as the user hand hovers above them. The height defines the tone, while the grid position defines the modulation.



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Project A - The Interactive Table - **5. The Active Surface** (shop,show,presentation, ...)

## *Object information extension plane*

- This application showcases the Augmented Reality potential of the Interactive Table.
- Physical objects carrying a specific symbol can be placed on the surface and are detected and recognized by the camera.
- The application displays information about the object near it. The information is placed and oriented according to the physical object position and orientation.
- Relationship connections appear between them and explain the relationship between the objects.
- Should be thought of as the technology that we might use for the “La Mer” proposal.



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These are only example of what can be done with this amazing technology, they are thought as products that have an aesthetic and/or commercial application.

Please feel free to comment with any and all ideas this might have brought up.

As you might have noticed these demos only discuss and display the technical possibilities and vision of each application. We would need the creative team (Marko&Keith) to decide and define the what and why for each of the projects.

The ideas are left open for interpretation and conceptualization, but at the same time i believe they offer a good start for us to develop some very appealing showcase of the Interactive Table technology we can offer to a large variety of clients and needs.

Any and all comments are more than welcome.