



YDREAMS

AUGMENTED
REALITY
PROPOSAL
FOR CES

INTRODUCTION

After last year's CES depth sensing demos, YDreams considers that a breakthrough for this year event should focus in using real image as opposed to all the already presented avatar control systems.

We also consider that Canesta technology with YDreams software and augmented reality expertise can lead to a change in paradigm in terms of immersion and interaction.

This change in paradigms can be applied to all areas of interactive computation, from business applications to edutainment and infotainment.

The suggestions contained in these ideas go well beyond the specific and immediate scope of what is presented and should serve as a proof of concept for interaction and simulation strategies that can be applied to many other objectives and contexts.

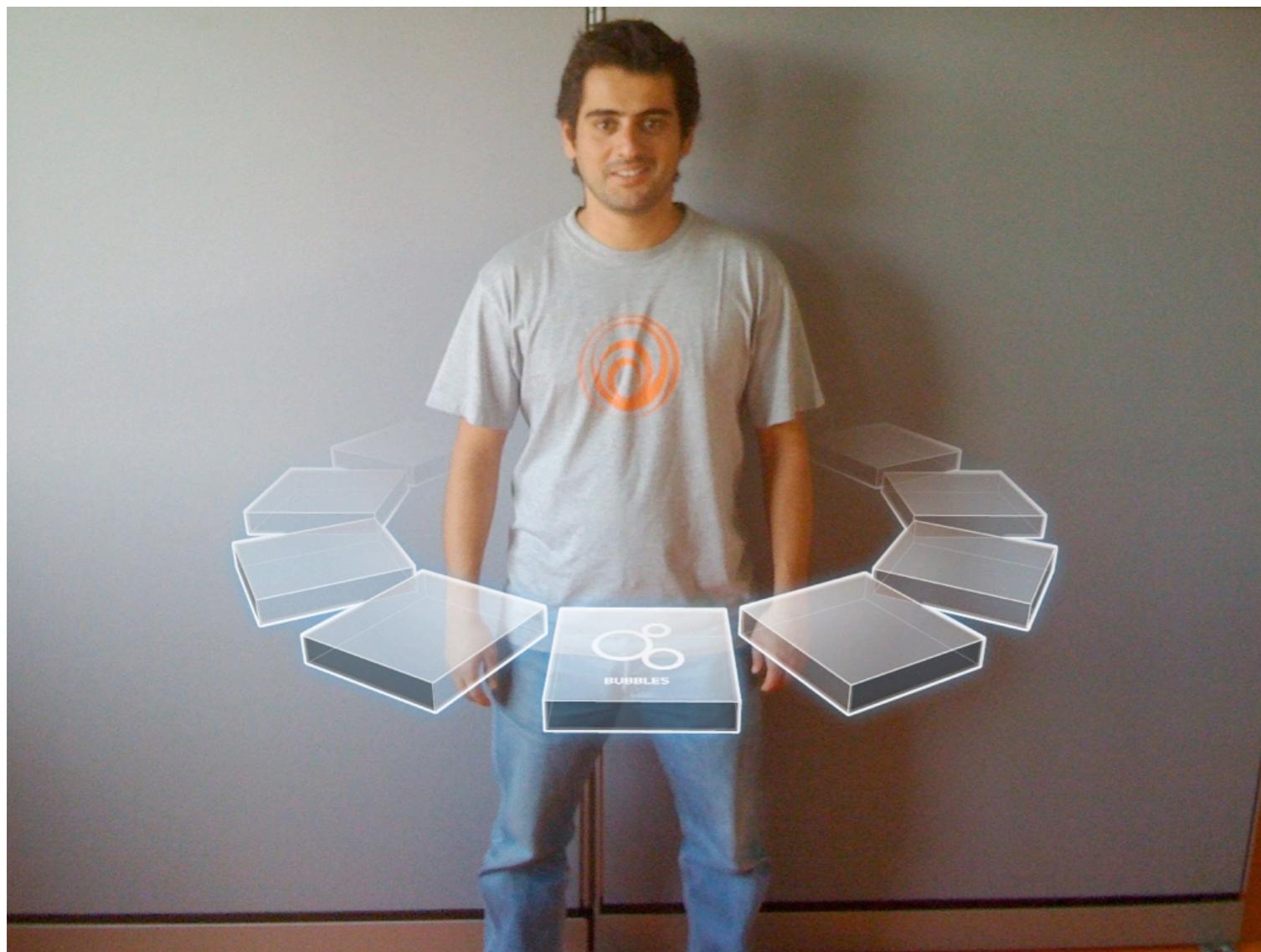


INTERFACE

When the user enters the camera's field of view a 3D menu is attached to his waist.

Outside a hot spot area this menu is dimmed.

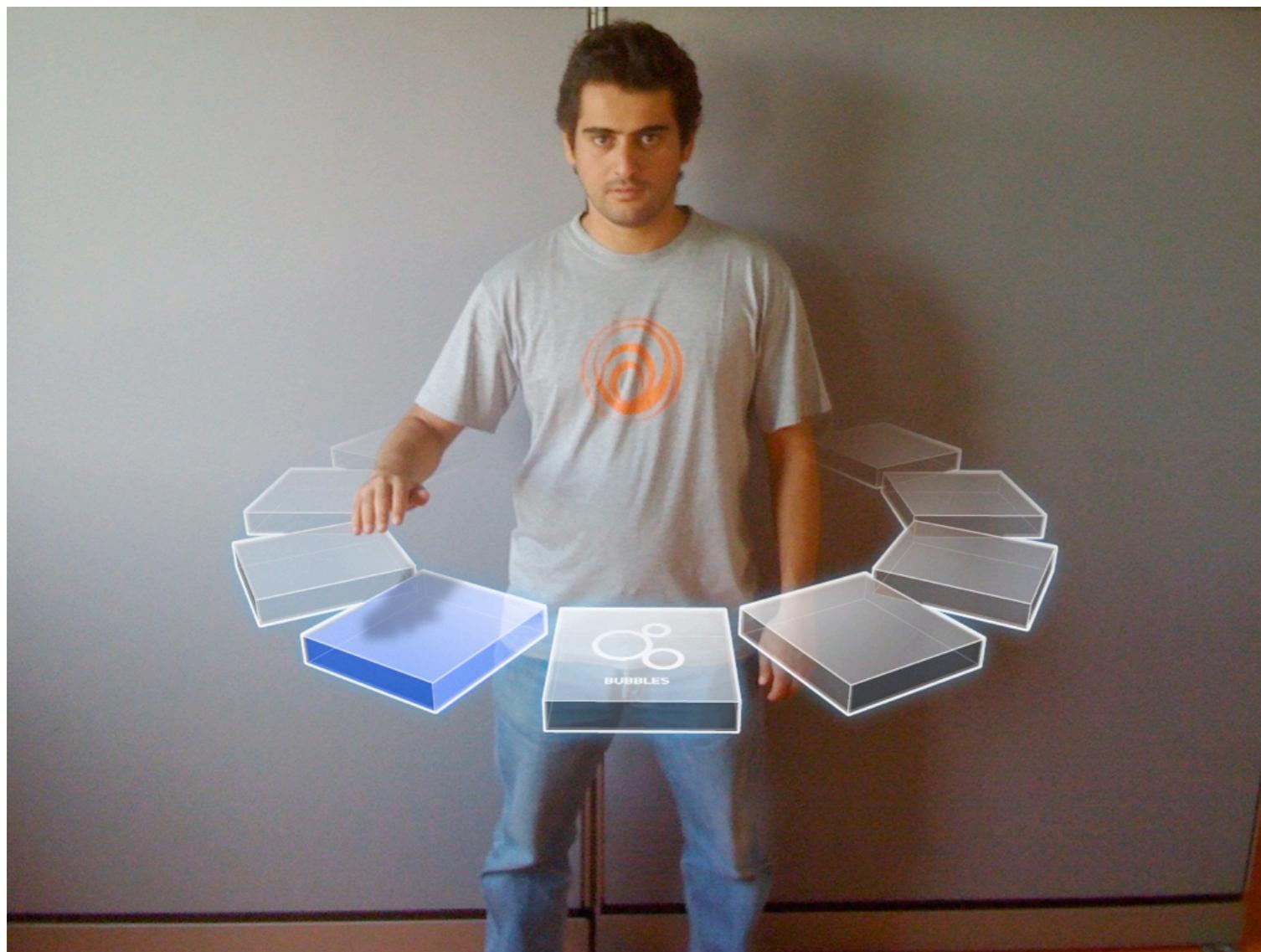
This strategy aims at establishing an immediate relation of the user with the system and presents an invitation to interaction.



INTERFACE

When the user moves to an hotspot the menu becomes more defined thus, allowing an intuitive search for the best interaction area.

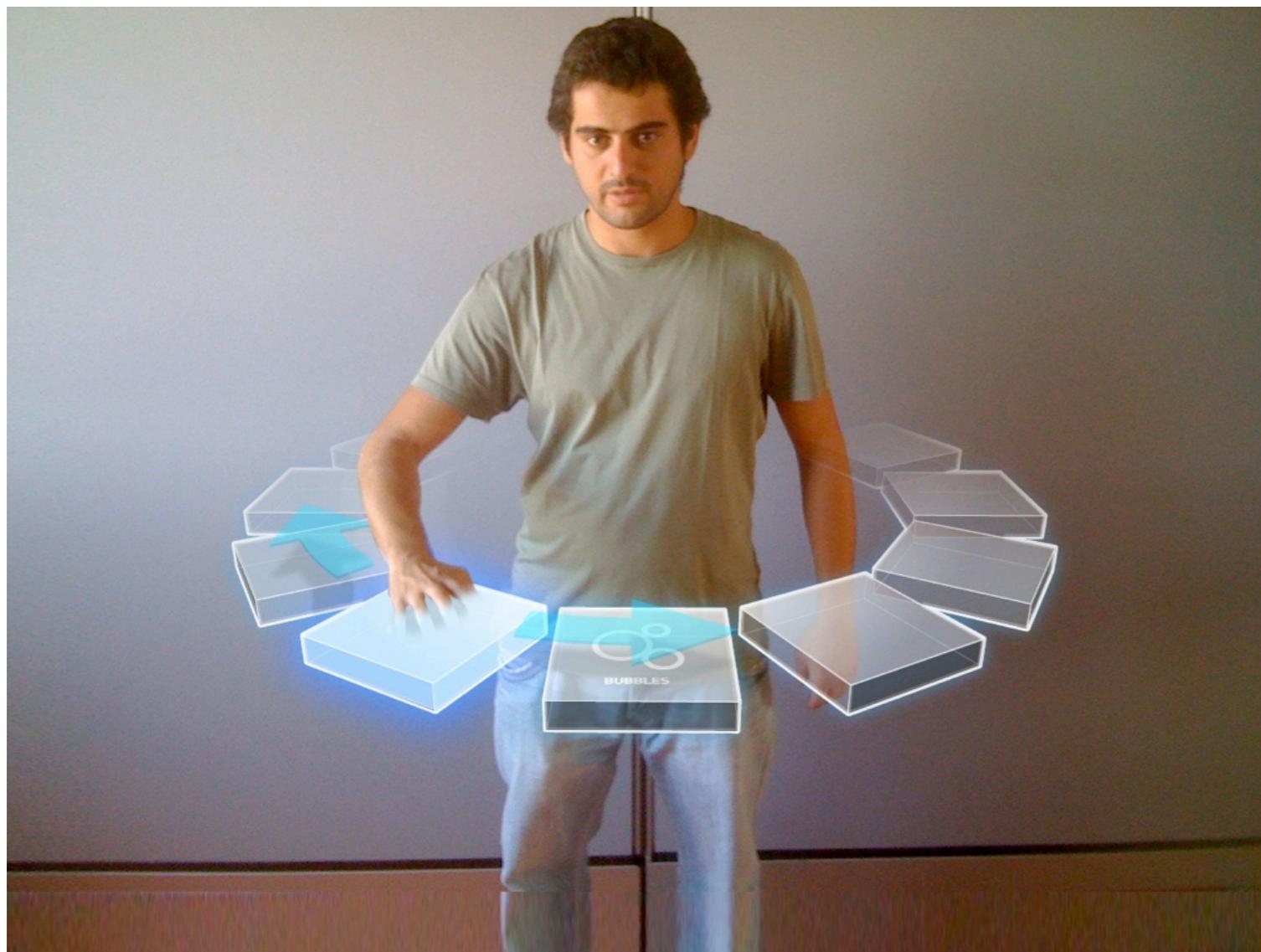
This menu is presented to the user as a real element, so the user can interact with it through the well known physical world laws (visual – shadows, occlusion, etc - and Newtonian – gravity, elasticity, collisions, etc).



INTERFACE

The menu serves as virtual reference for the 3D world.

Cues such as shadows, perspective, opacity levels and occlusion help establish this relationship, as well as constant reactions to the users actions. May they be intentional or exploratory.



INTERFACE

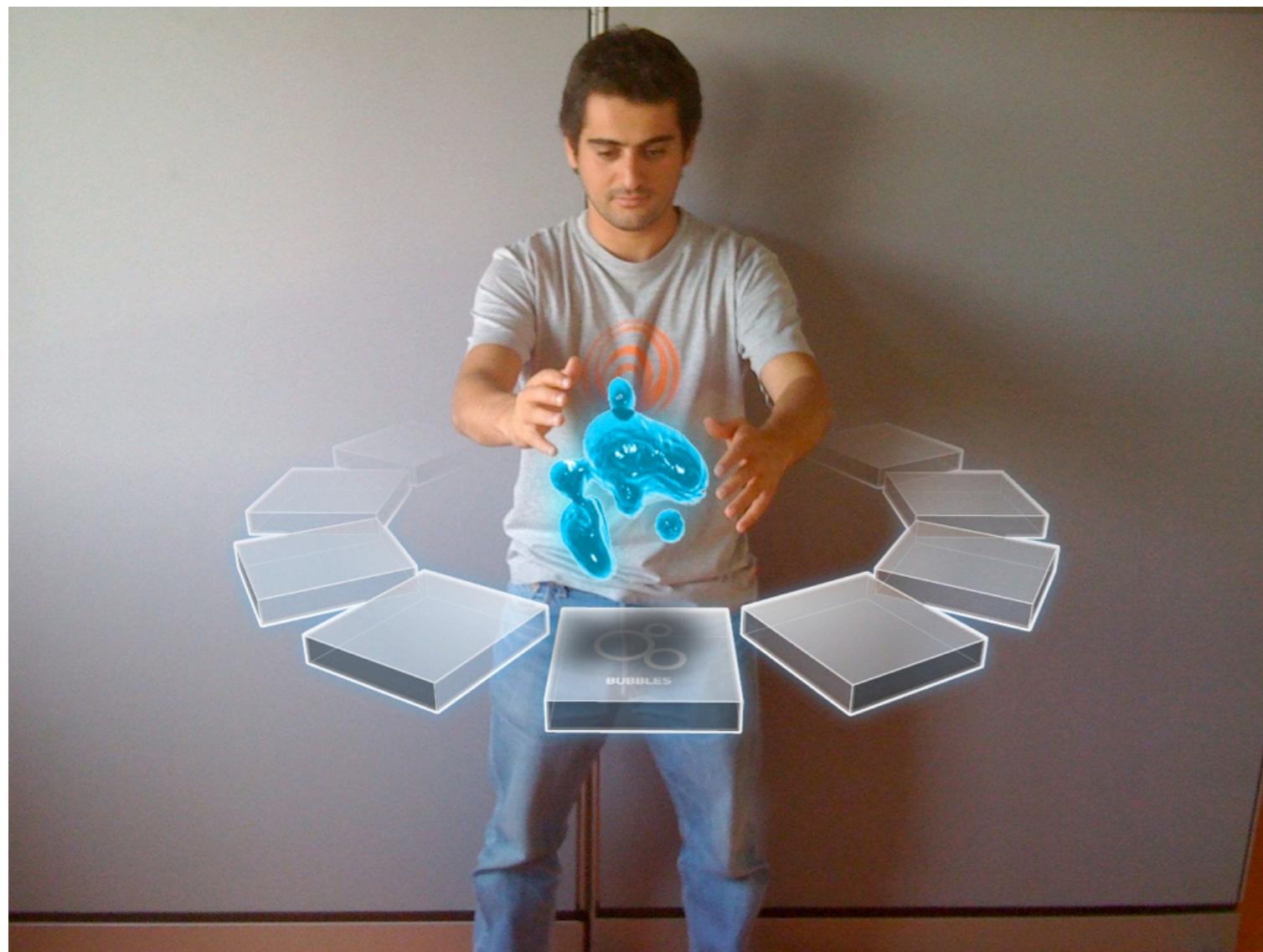
Each menu option opens up a new AR experience. When the user “touches” one of the boxes it “glues” to the hand and gives the user the possibility to rotate the menu.



INTERFACE

When the user want to select one of the options from the menu, he only has to strike the corresponding button.

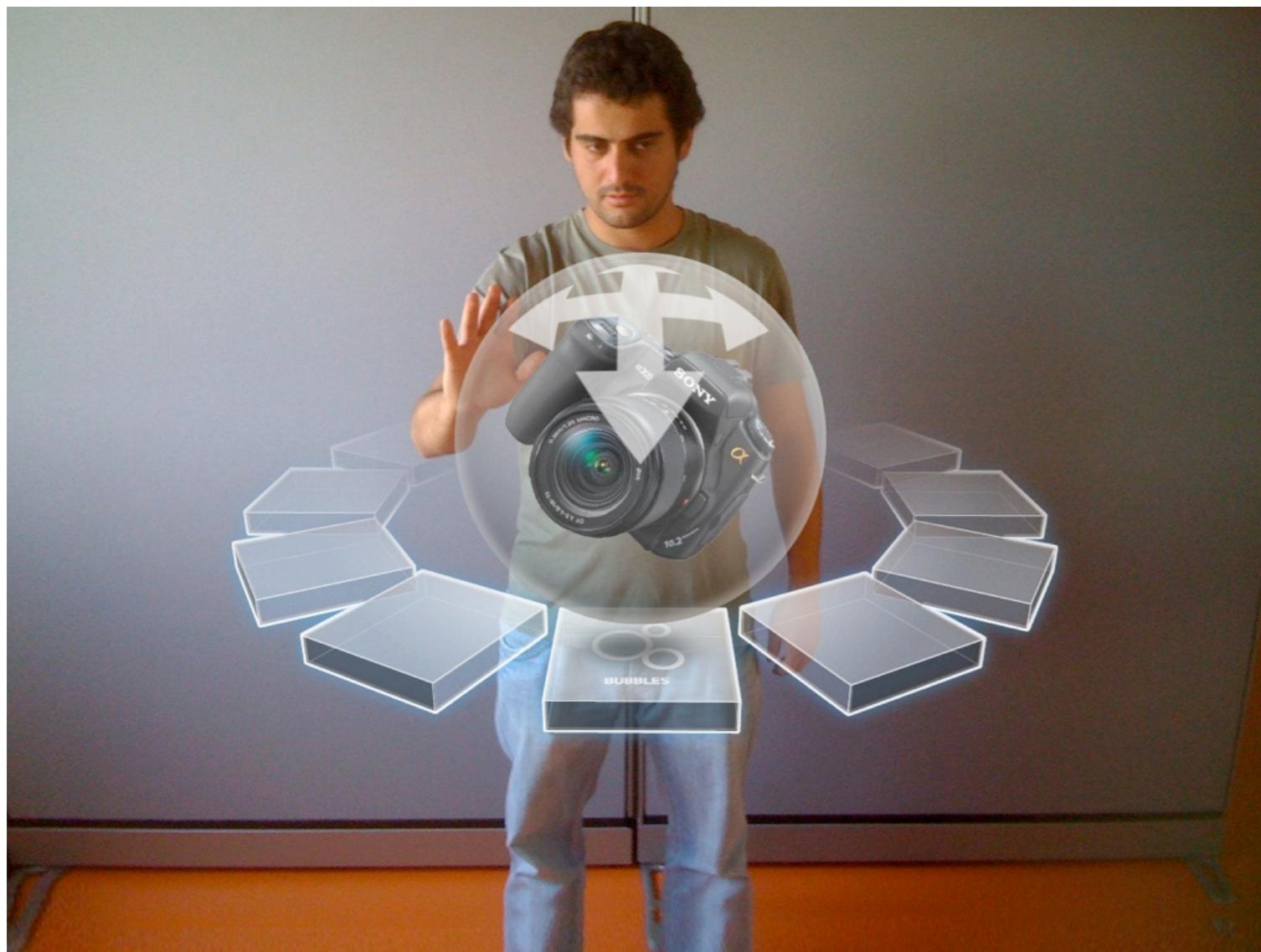
The following slides present some ideas for the experiences each of the buttons in the interface can have.



PLASTIC OBJECT MANIPULATION

The first idea is to have blob of “lava” which be moulded using gestures and fluid dynamics.

This use can show the potential for complex system interaction and simulation.

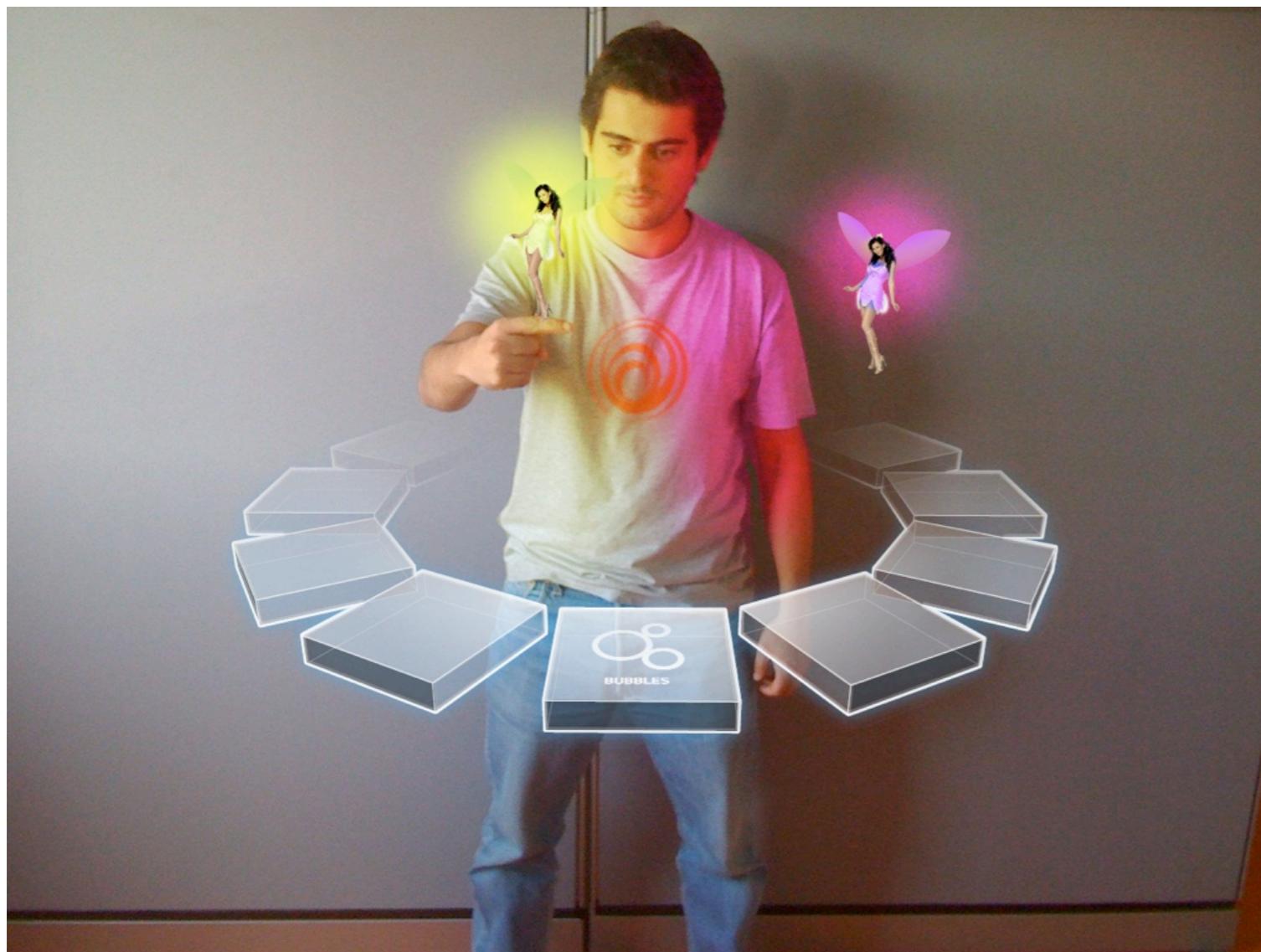


PRODUCT ANALISYS

In this experience users can rotate objects and check out their features (which can be displayed using text tags).

The objects can either be static, animated, or even done in layers so that users can take them “apart”.

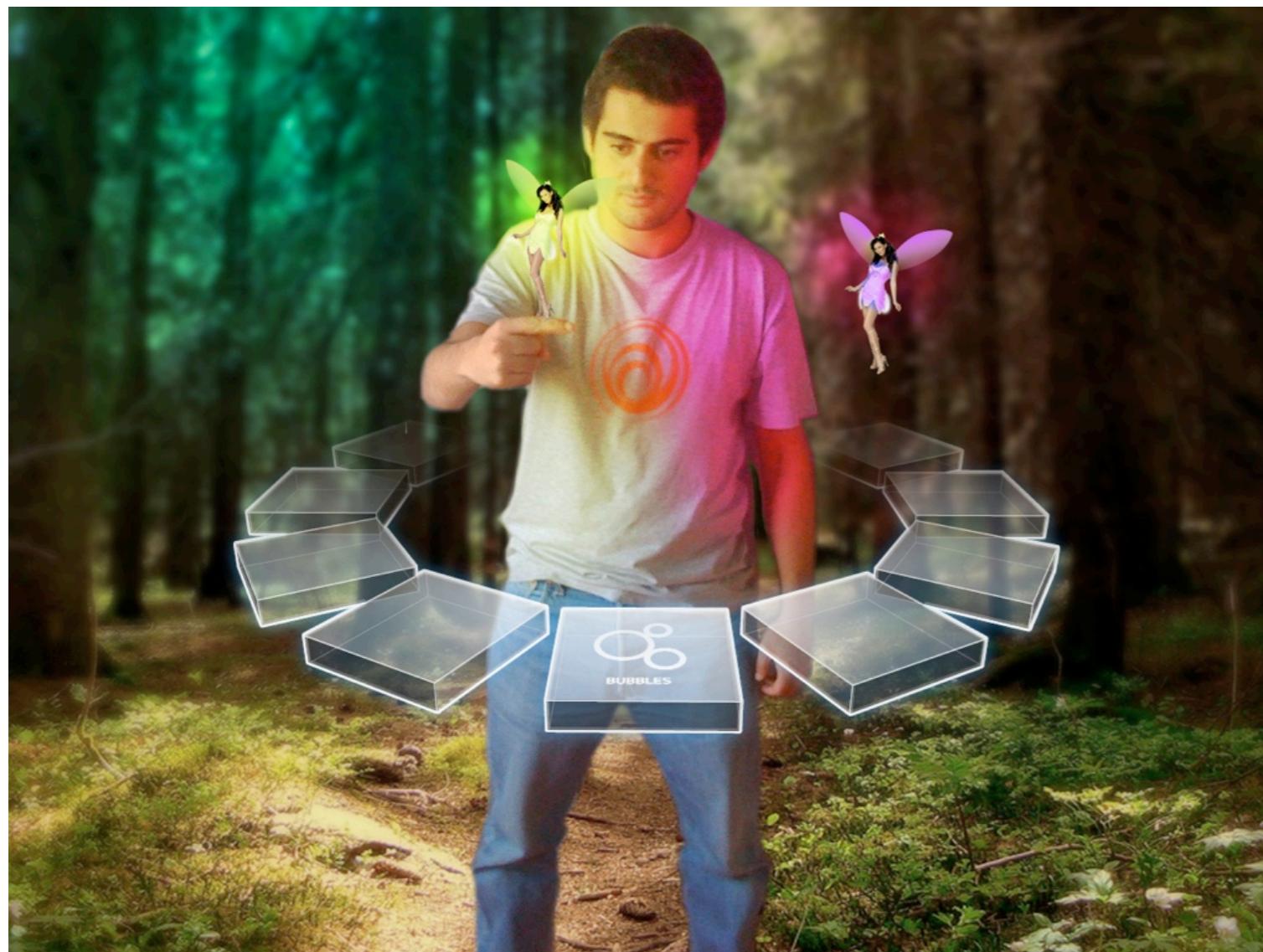
This application can help show of the potential of the system in the advertising field.



CHARACTER ANIMATION

Showing off the possibilities for entertainment, users can interact with fairies (or other creatures).

The fairies glow will actually cast color shadows on the body of the users.



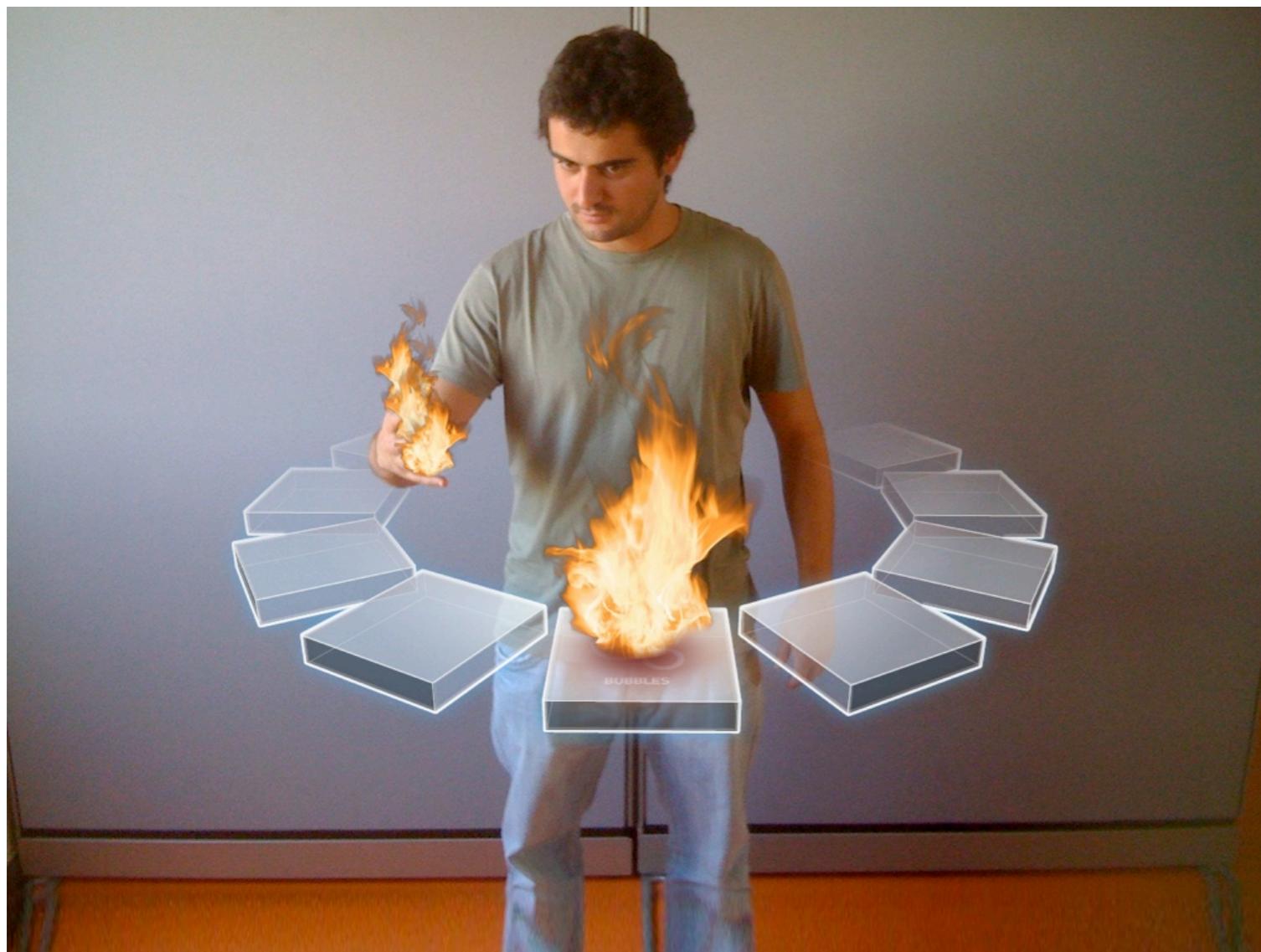
IMMERSIVE CHARACTER ANIMATION

Similar to the previous experience, but the background is replaced by a image/video which actually places the user in an simulated environment – making the experience more complete.



PLAYING INSTRUMENTS

The 3D interface and detection allows to create virtual instruments, the idea here is to have a small set of drums which can actually be played with your hands.



BODY INTERACTION

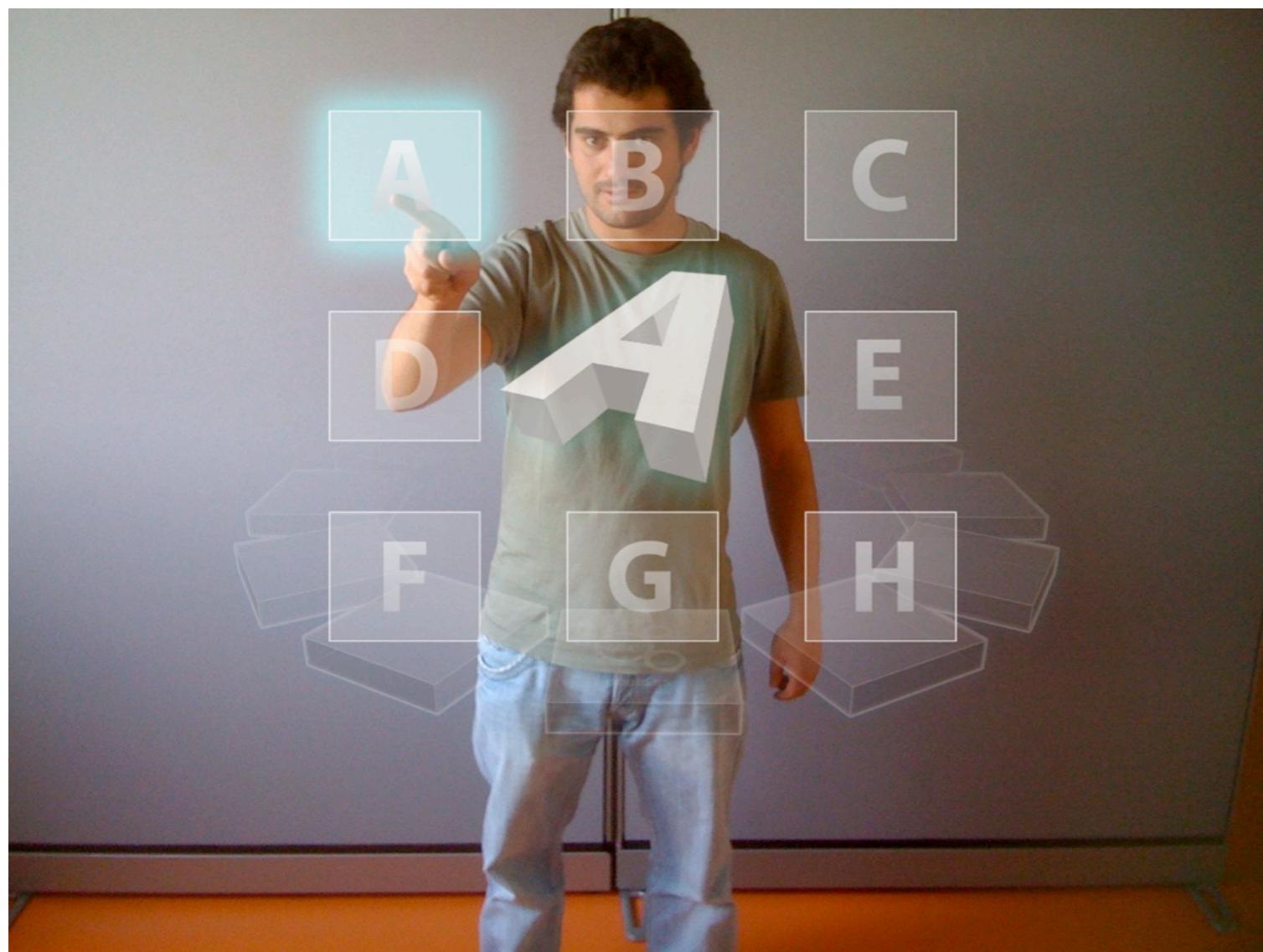
In the experience we can show that virtual elements can actually interact directly and fluidly with movements of the user.

In this case the user will “catch fire” and play with the flames.



PLAYING WITH OBJECTS

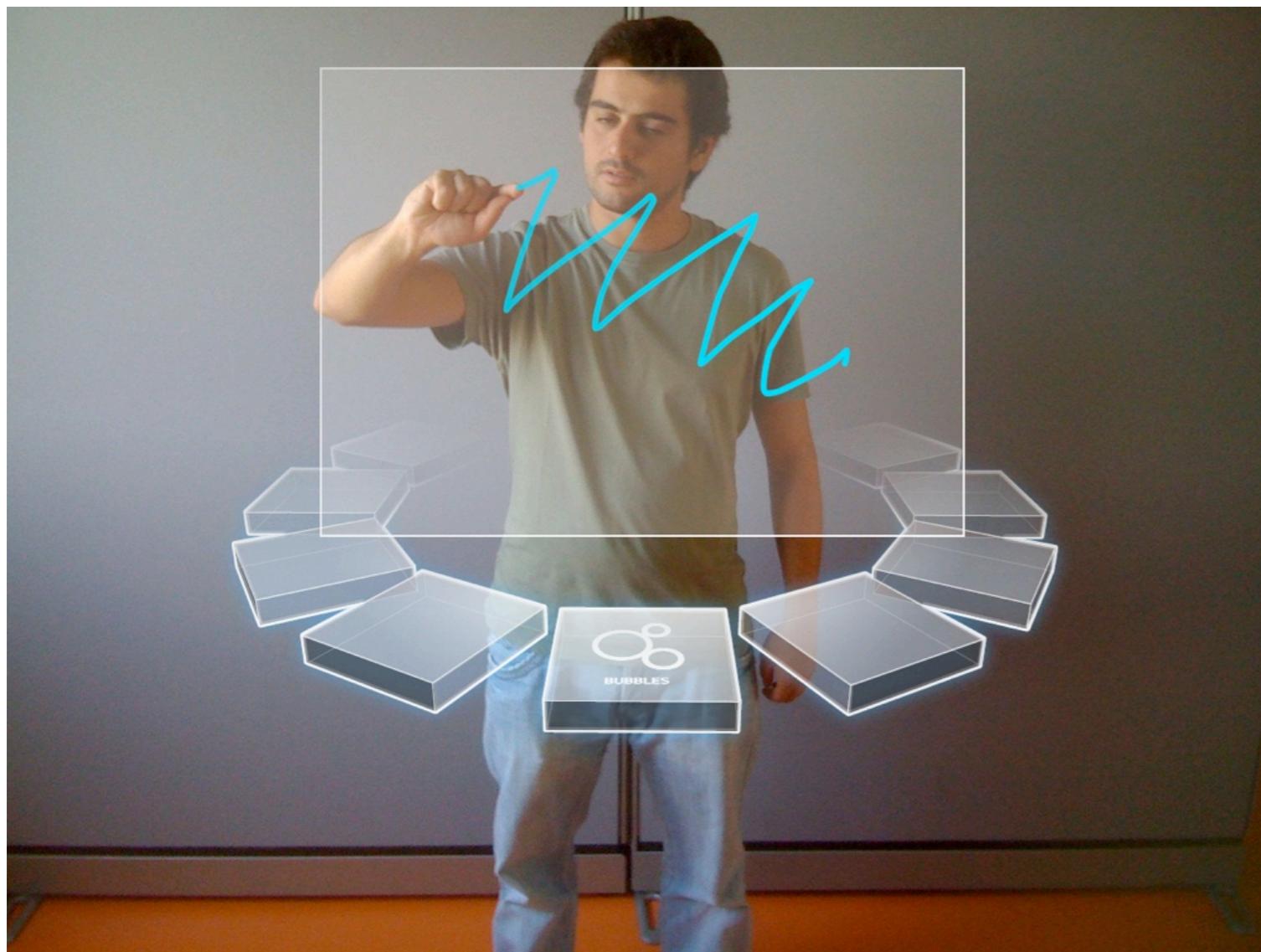
Another self explanatory sample – the user can interact with the bubbles.



OBJECT SELECTION

Idea for a “sub-menu” where the user can select from several objects available.

The idea can also be expanded to allow the user to input text or numbers.



DRAWING BOARD

Idea for a drawing interface, which can also show of the accuracy of the system.

A color choosing menu can be added so that more complex drawing is possible.

All these ideas are preliminary concepts for mutual analysis that may have to be re-evaluated after the completion of Canesta's integration and intensive user testing.

A detailed development chronogram may also determine a subset of experiences from all the presented ones in order to comply to the CES deadline.

CONFIDENTIALITY

Ideas and concepts described in this proposal are YDreams intellectual property. The use of, reference to or development of its content, without the consent of YDreams, will cause the activation of legal means in order to protect the author's rights.



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