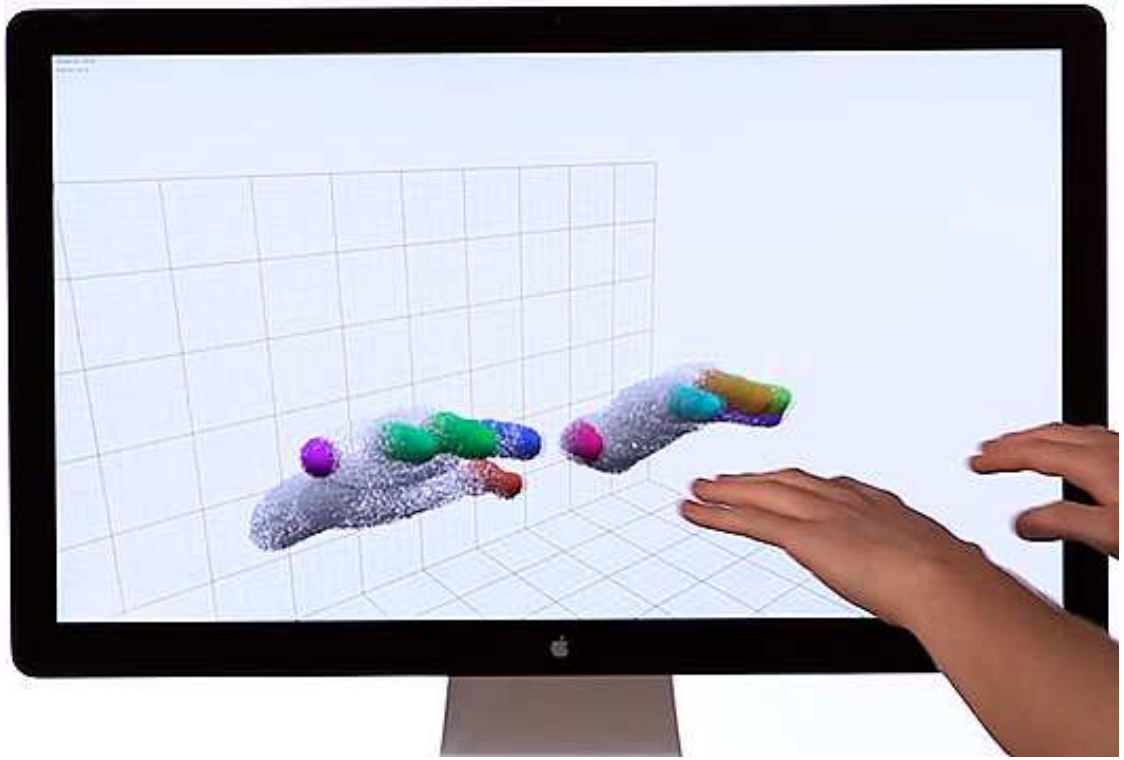
LEAP MOTION HAND TRACKING



Keywords
Hand gestures, motion control

Input
Infrared

Output:
Finger Tracking

Technology:
Leap Motion

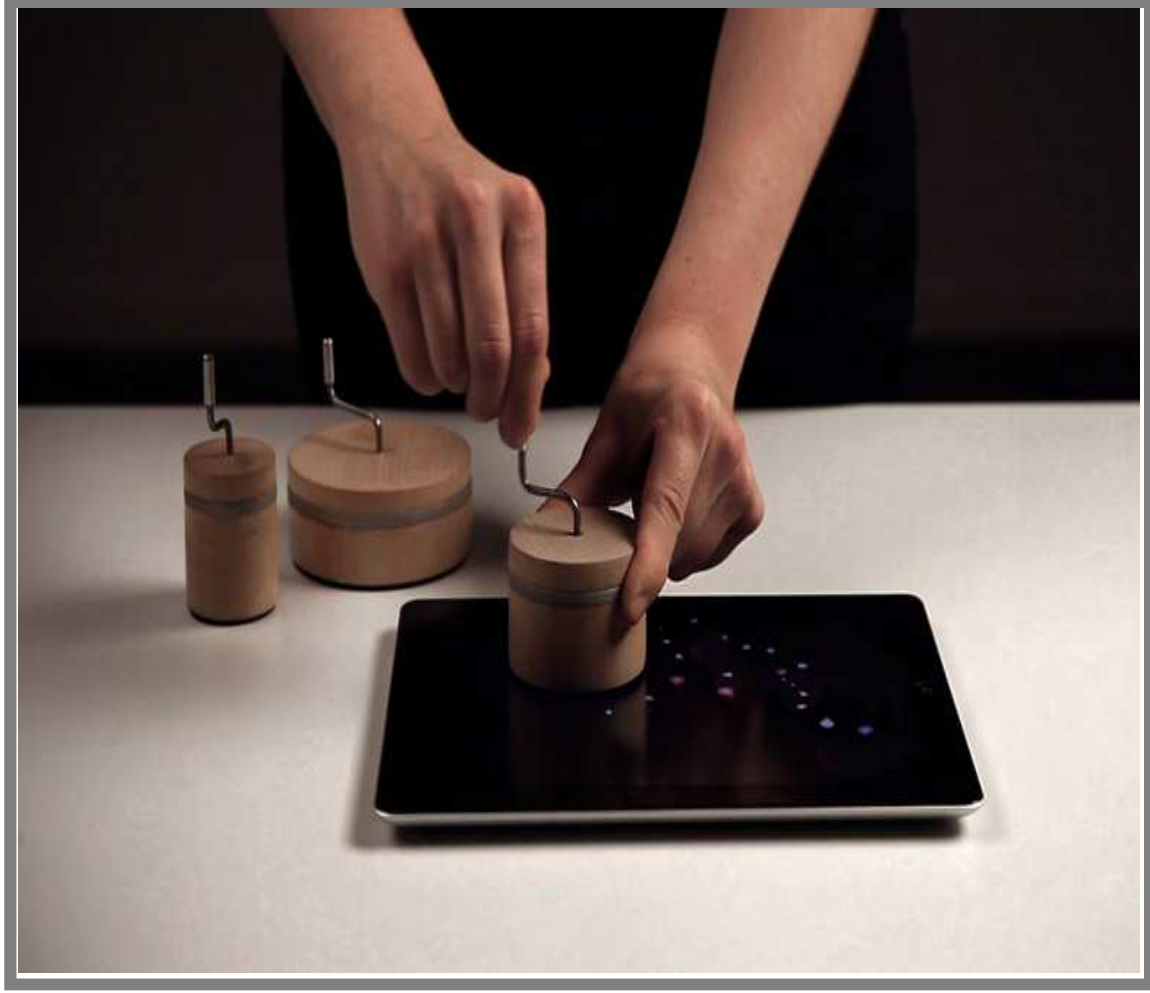
LEAP MOTION HAND TRACKING

Description:

The Leap uses a number of camera sensors to map out a workspace of sorts — it's a 3D space in which you operate as you normally would, with almost none of the Kinect's angle and distance restrictions. Currently the Leap uses VGA camera sensors, and the workspace is about three cubic feet; bigger, better sensors are the only thing required to make that number more like thirty feet, or three hundred. Leap's device tracks all movement inside its force field, and is remarkably accurate, down to 0.01mm. It tracks your fingers individually, and knows the difference between your fingers and the pencil you're holding between two of them.

Links:
http://www.theverge.com/2012/6/26/3118592/leap-motion-gesture-controls

THE IPAD MUSIC BOX(Big Screen)



Keywords
Interactive Table
Tangibles

Input
Wooden Boxes
Touchpanel

Output:
Music

Technology:
Touchscreen
Conductive rubber tips

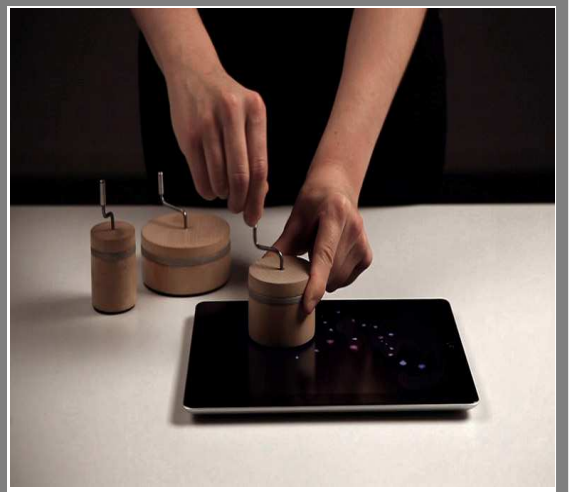
THE IPAD MUSIC BOX(Big Screen)

Description:

With little wooden boxes, the designer Joelle Aechlimann, has created a music concept for iPad, where the user can interact with little boxes on the iPad screen instead of using fingers on the iPad. The concept consists of a tangible part composed of three separate music boxes which can interact with an application on the iPad. When the user places one of the boxes on the iPad screen, the application will recognize and activate it. Each of the three boxes contain its own universe revealed by the action of the crank with an animation and music proper to each. The speed at which the box is turned directly affects how fast the music is played and lively animated interactive elements move in time to the tunes. The boxes are constructed of wood and has conductive rubber tips attached to the underside of it. In this way the rubber tips can be detected by the custom application, on the iPad, as they rotate and make contact with the display.

This technology could be maybe transformed to a bigger screen in the hallway PZ9.

Links:
http://digitalexperience.projects.cavi.dk/frontend/
http://joelleaeschlimann.ch/littleboxes/



AUGMENTED REALITY

Keywords
Virtual reality, augmented

Input
Camera, Kinect

Output:
Big screen-, Handy bzw. Tablet with changed reality

Technology:
Augmented reality
ARToolkit
Kinect
Camera

AUGMENTED REALITY

Description:

Augmented reality (AR) is a live, direct or indirect, view of a physical, real-world environment whose elements are augmented by computer-generated sensory input such as sound, video, graphics or GPS data. It is related to a more general concept called mediated reality, in which a view of reality is modified by a computer. As a result, the technology functions by enhancing one's current perception of reality. By contrast, virtual reality replaces the real world with a simulated one. Augmentation is conventionally in real-time and in semantic context with environmental elements. With the help of advanced AR technology (e.g. adding computer vision and object recognition) the information about the surrounding real world of the user becomes interactive and digitally manipulable.

Links:

http://mashable.com/category/augmented-reality/