

Tactile vision

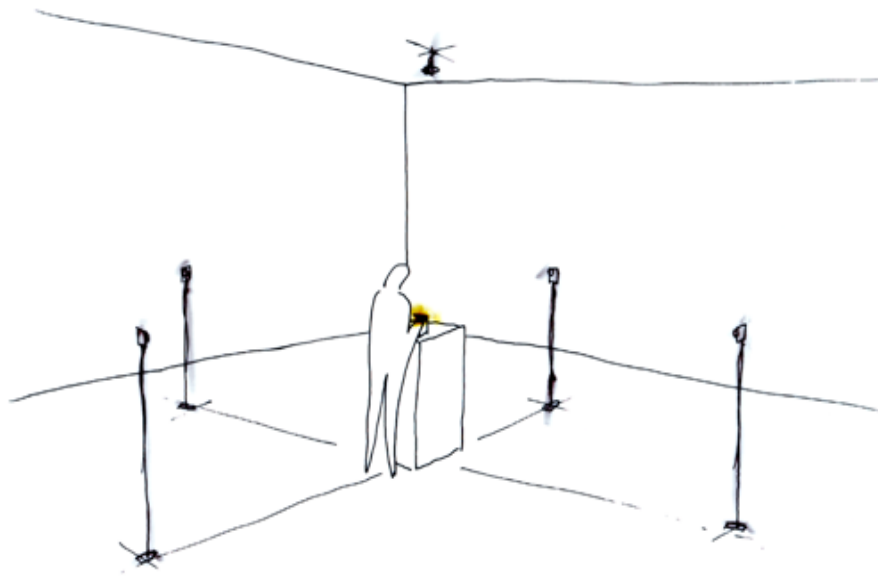
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Concept

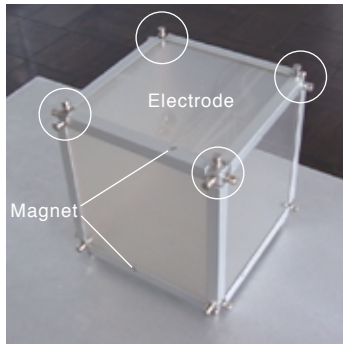


Tactile vision is an interactive installation that enables the viewer to objectively see him/herself from several points of view. The 6 CCD cameras that are in front of, behind, to the left and right, and above and below the viewer, continuously film the viewer as he/she interacts with the work. Each real time image filmed by the 6 cameras corresponds to one of the 6 surfaces of the translucent cube. When the viewer puts the cube in a predetermined place, he/she can see him/herself on the top surface of the cube. As the viewer rotates the cube, he/she can see him/herself from 6 different angles. The 6 images are projected in the same position as the 6 CCD cameras. The image that appears on the top surface of the cube is filmed by a predetermined camera, however even if the same surface is on top, the image that appears is not necessarily the same. The image is rotated along with the direction of a surface. In other words, the 6 images filmed by the CCD cameras are mapped onto the real cube.

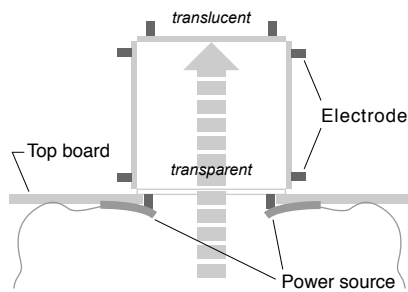
This work is not a mere switching device. The viewer can touch this tactile self-portrait that consists of 6 images using the relation between the 6 images as an interface. I sincerely hope the viewer feels that he/she is able to freely manipulate him/herself in the cube, which is really interaction between the viewer and him/herself.



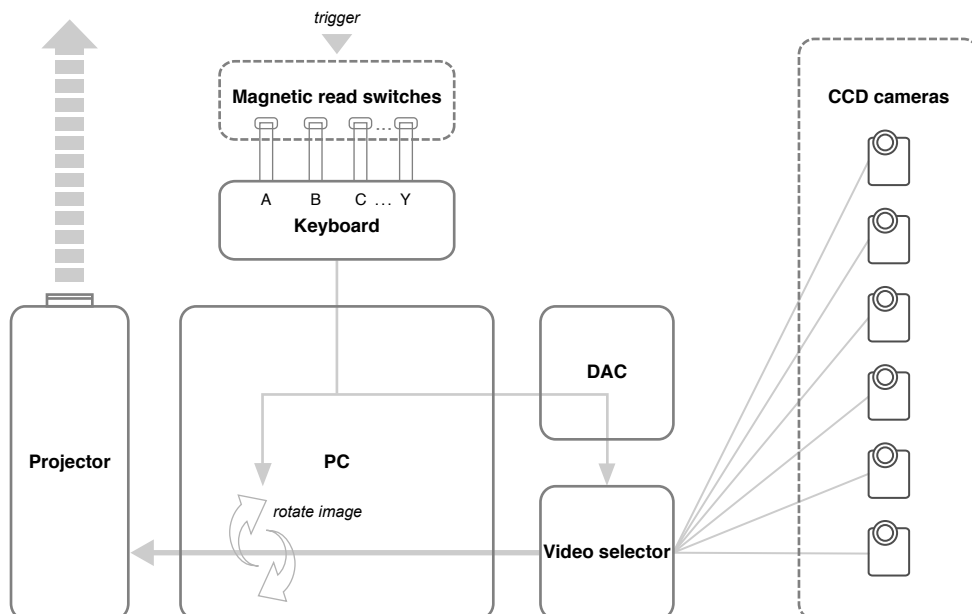
Technical Realization



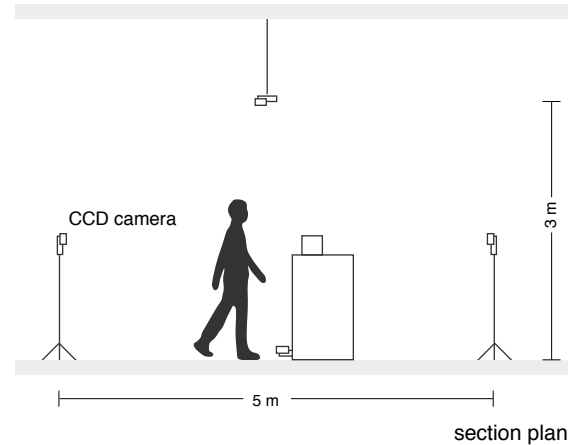
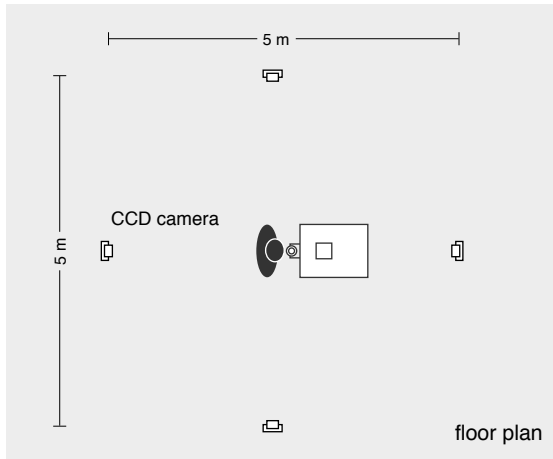
In order to achieve this work the PC needs to be able to identify the 6 surfaces of the cube and the 4 directions of each surface. In short, the PC needs to be able to identify 24 patterns. To achieve this I used 24 magnetic read switches and 6 magnets. The 6 magnets are attached to each of the 6 surfaces of the cube according to predetermined laws. The 24 magnetic read switches are attached under the top board. Each switch is connected to the PC. When the viewer puts the cube in a predetermined position, only one of the 24 magnetic read switches is activated.



The cube consists of 6 sections of switchable light control glass. When connected to a power source, the switchable light control glass becomes transparent, and when not connected, it remains translucent. Only the bottom section of the switchable light control glass is connected to a power source, the image passes through the bottom surface that is transparent, and is projected onto the top surface.



Space Requirements



Machinery and Materials

PC (Pentium III-733, 512MB of memory, Geforce 3, Analog video capture card)

LCD projector (XGA resolution)

CCD camera

D/A converter

Video selector

Magnetic read switch

Magnet

Switchable light control glass

Biography

Tomohiko Saito

Born in Kyoto, Japan, 1976



Education:

1998 Bachelor of Architecture, Kogakuin University, Tokyo, Japan

1998-1999 Research Student, Watanabe Laboratory, Kogakuin University, Tokyo, Japan

2002 Diploma in Media Arts and Sciences, International Academy of Media Arts and Sciences, Gifu, Japan

Awards:

cast01, Germany, Sep.2001 *Accepted Poster*

5th Media Arts Festival, Agency for Cultural Affairs, Japan, Mar.2002 *Jury's Selection*

Exhibitions and Conferences:

Blank Hunting Exhibition, Tokyo, Japan, May.2001

cast01, Sankt Augustin, Germany, Sep.2001

Flame Frame Exhibition, Gifu, Japan, Dec.2001

5-17-1 Exhibition, Tokyo, Japan, Jan.2002

5th IAMAS Graduate Exhibition, Gifu, Japan, Feb.2002

retake Exhibition, Sendai, Japan, Apr.2002