

Introduction of Rekimoto Lab

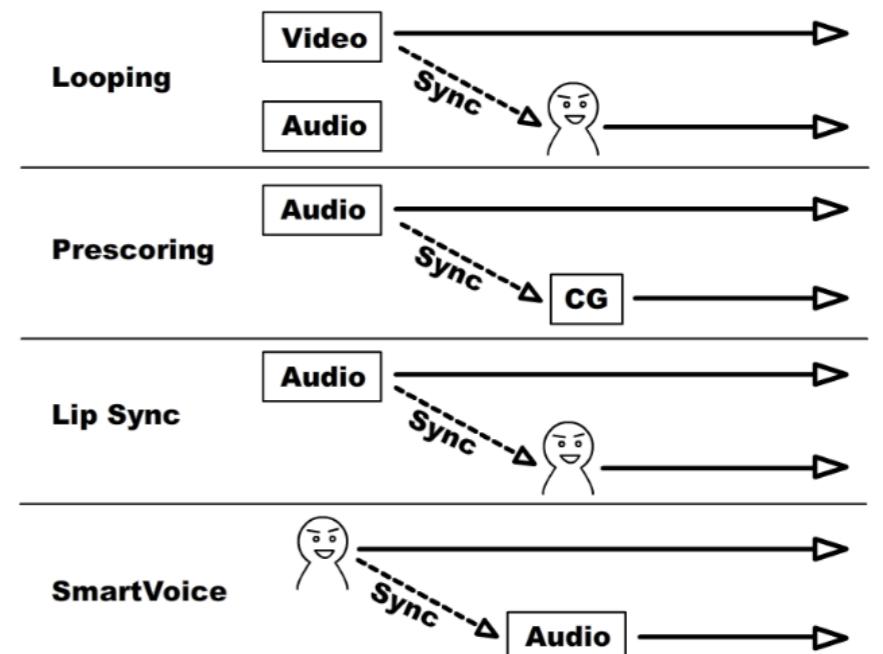
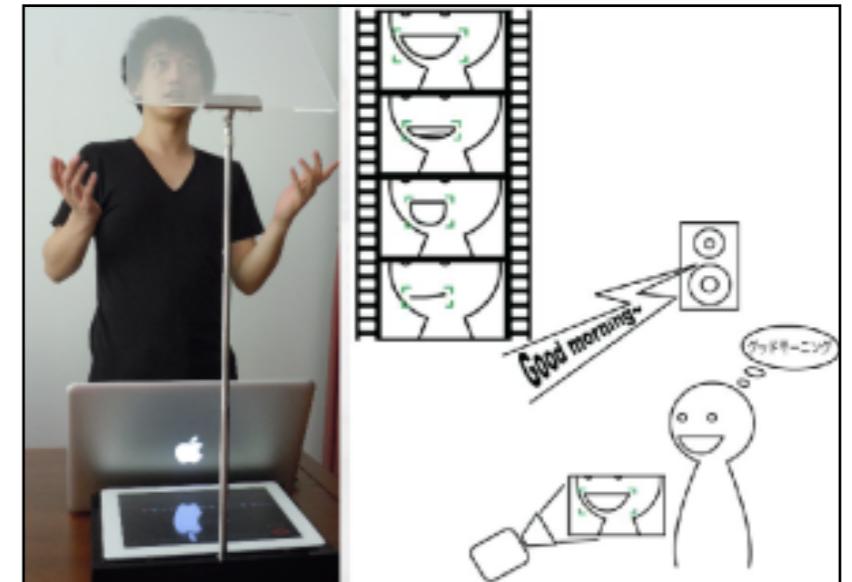
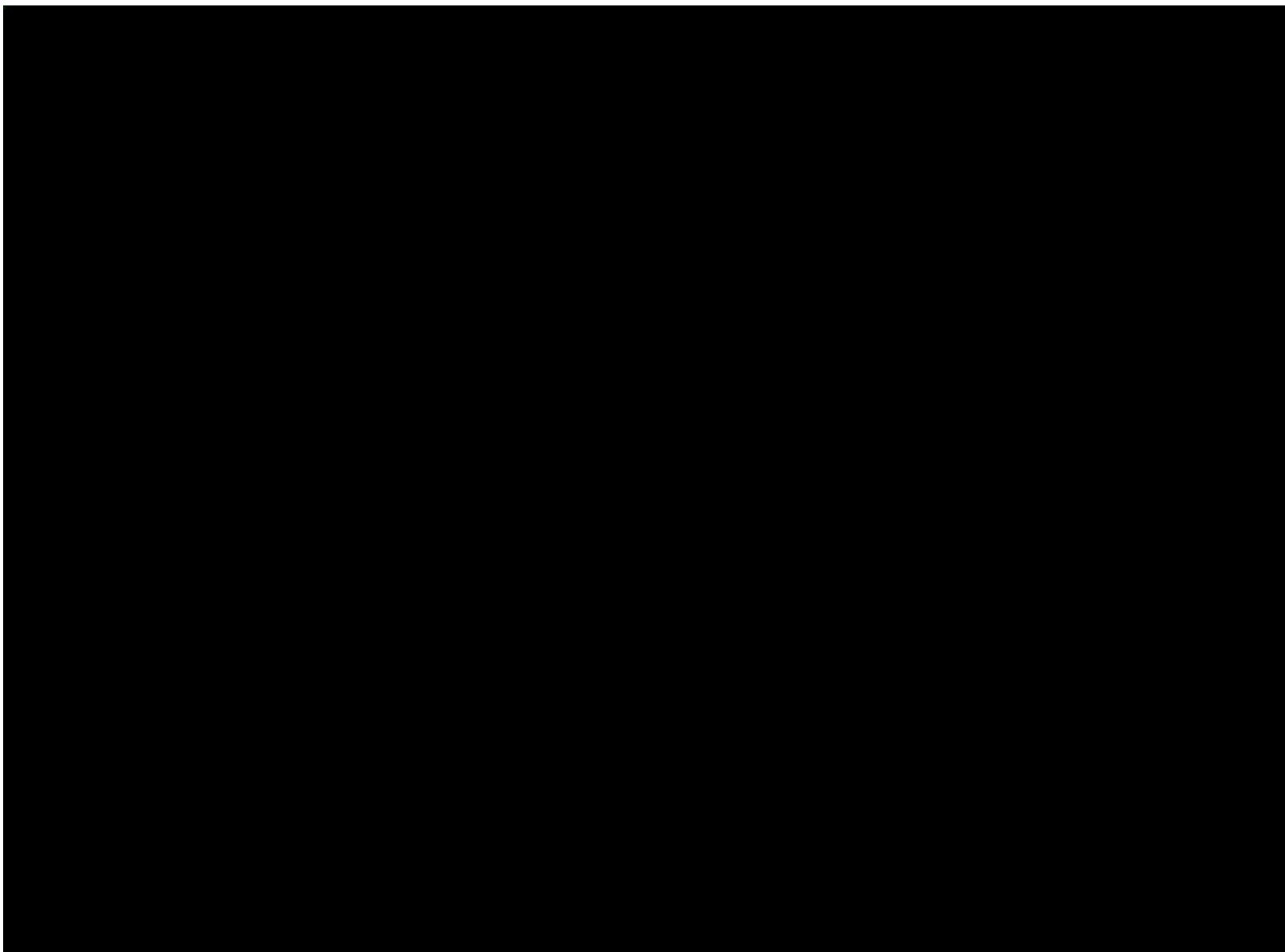
Xinlei Zhang

Agenda

- Prof. Jun Rekimoto
- Interface
 - SmartVoice
- Augmented Human
 - Possessed Hand
 - Aided Eye
 - Flying Head
- Augmented Sports
 - Around Me
 - Swimoid
 - HoverBall
- Human - Human Interaction
 - JackIn Eye
 - JackIn Head

SmartVoice:

A Presentation Support System for Overcoming the Language Barrier



Xiang Li, and Jun Rekimoto, “SmartVoice: A Presentation Support System for Overcoming the Language Barriers”, CHI2014.

(Augmented) Human

Possessed Hand



To aid the controlling of finger movement, we present PossessedHand, a device with a forearm belt that can teach when and which fingers should be moved.

PossessedHand: Techniques for controlling human hands using electrical muscles stimuli, Emi Tamaki, Takashi Miyaki, Jun Rekimoto, CHI2011, paper, ACM

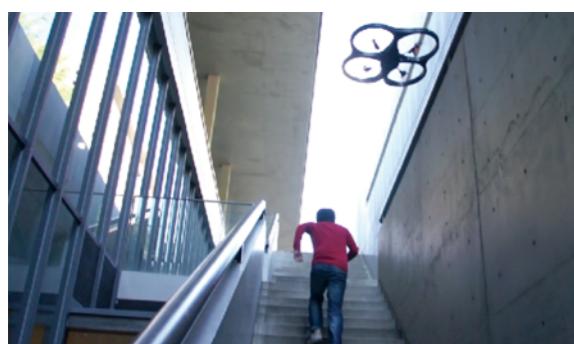
Aided Eye



We propose a method that involves real-time measurement of eye movement for human memory enhancement; the method employs gaze-indexed images captured using a video camera that is attached to the user's glasses.

Yoshio Ishiguro, Adiyan Mujibiya, Takashi Miyaki and Jun Rekimoto, Aided Eyes: Eye Activity Sensing for Daily Life, The 1st Augmented Human International Conference (AH2010), Megève, France, 2010.

Flying head

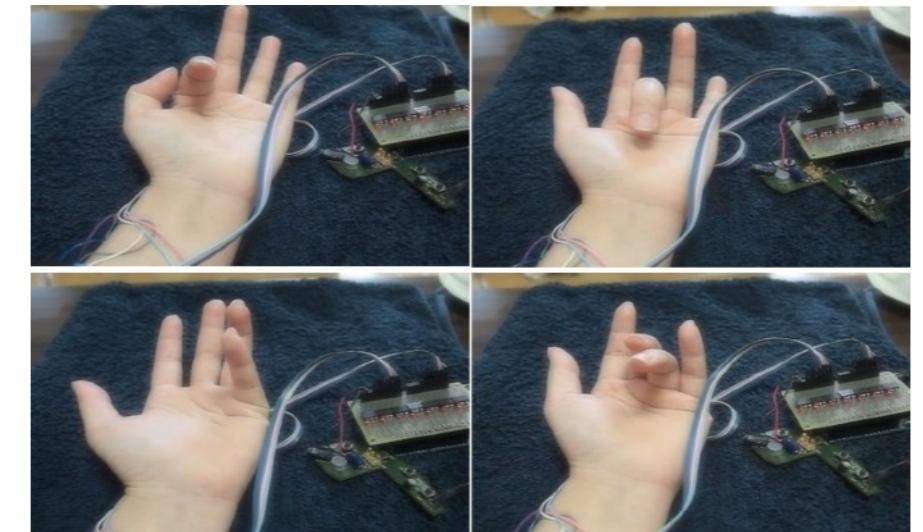
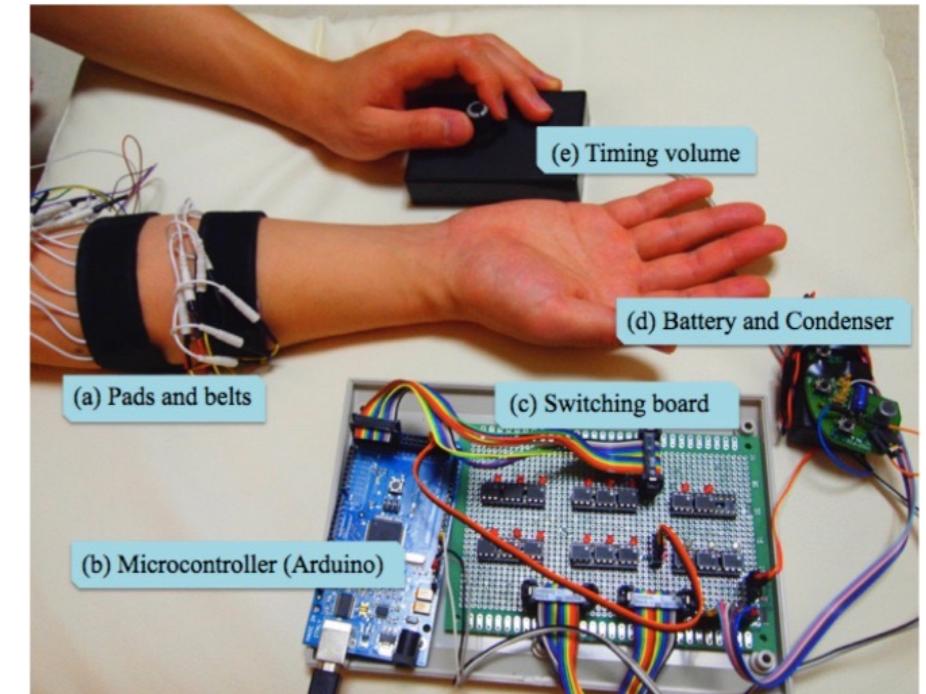


FlyingEyes realizes free-space camerawork and content creation using autonomous aerial vehicles. This system can also be used for other purposes, such as a flying sports assistant.

Keita Higuchi, Jun Rekimoto Flying Head: A Head Motion Synchronization Mechanism for Unmanned Aerial Vehicle Control, CHI2013 alt.chi, (2013. 4).

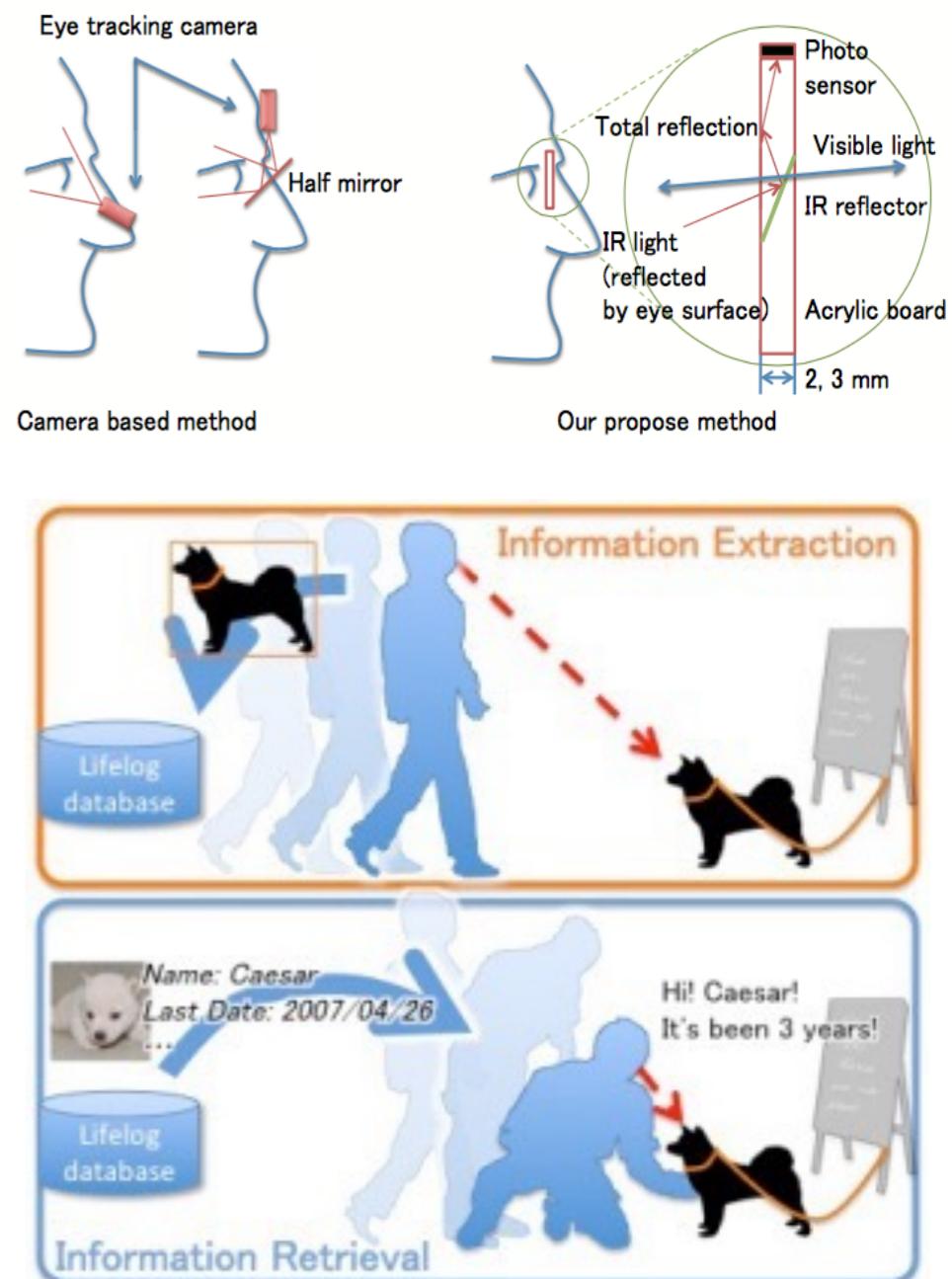
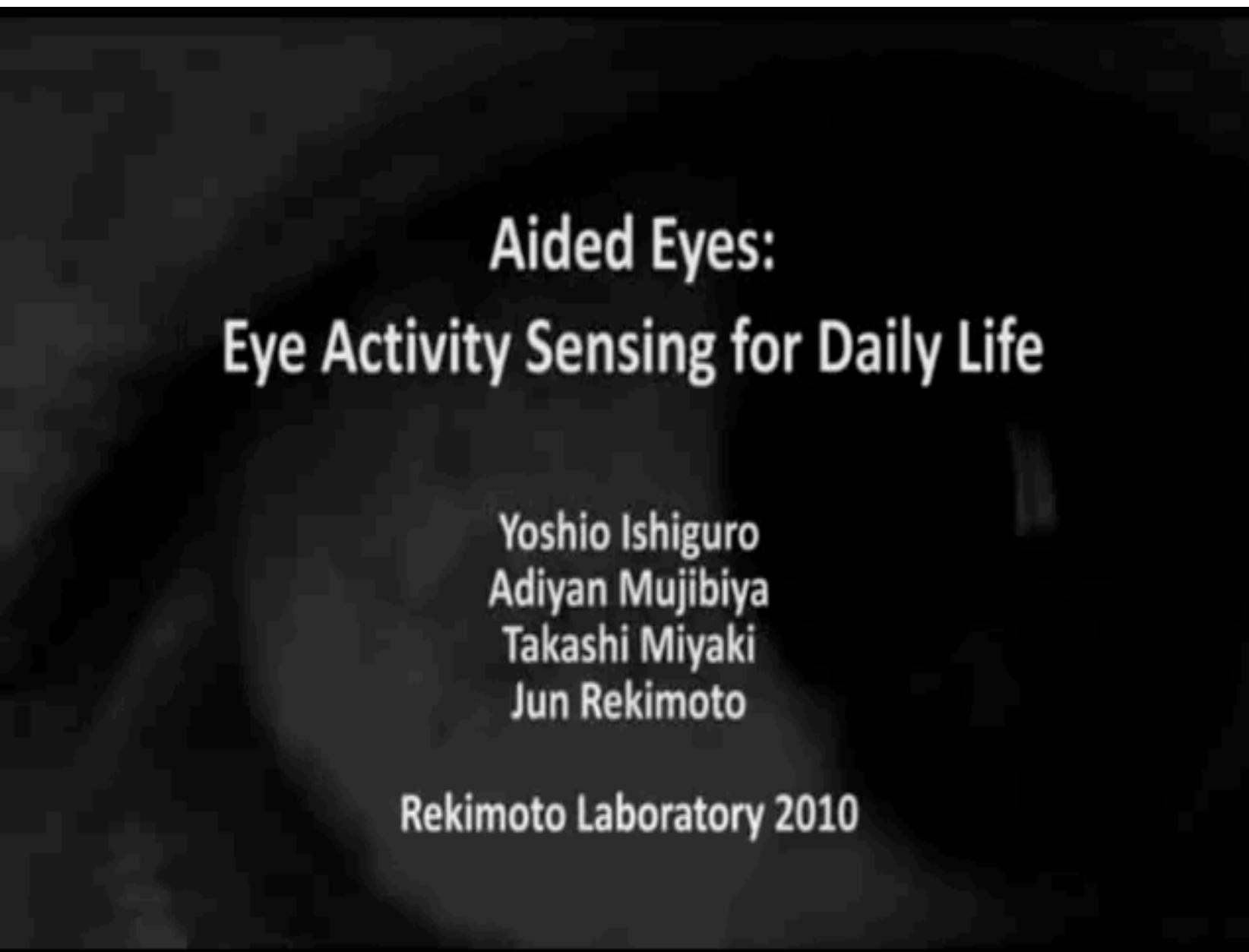
Possessed Hand:

Techniques for controlling human hands using electrical muscles stimuli



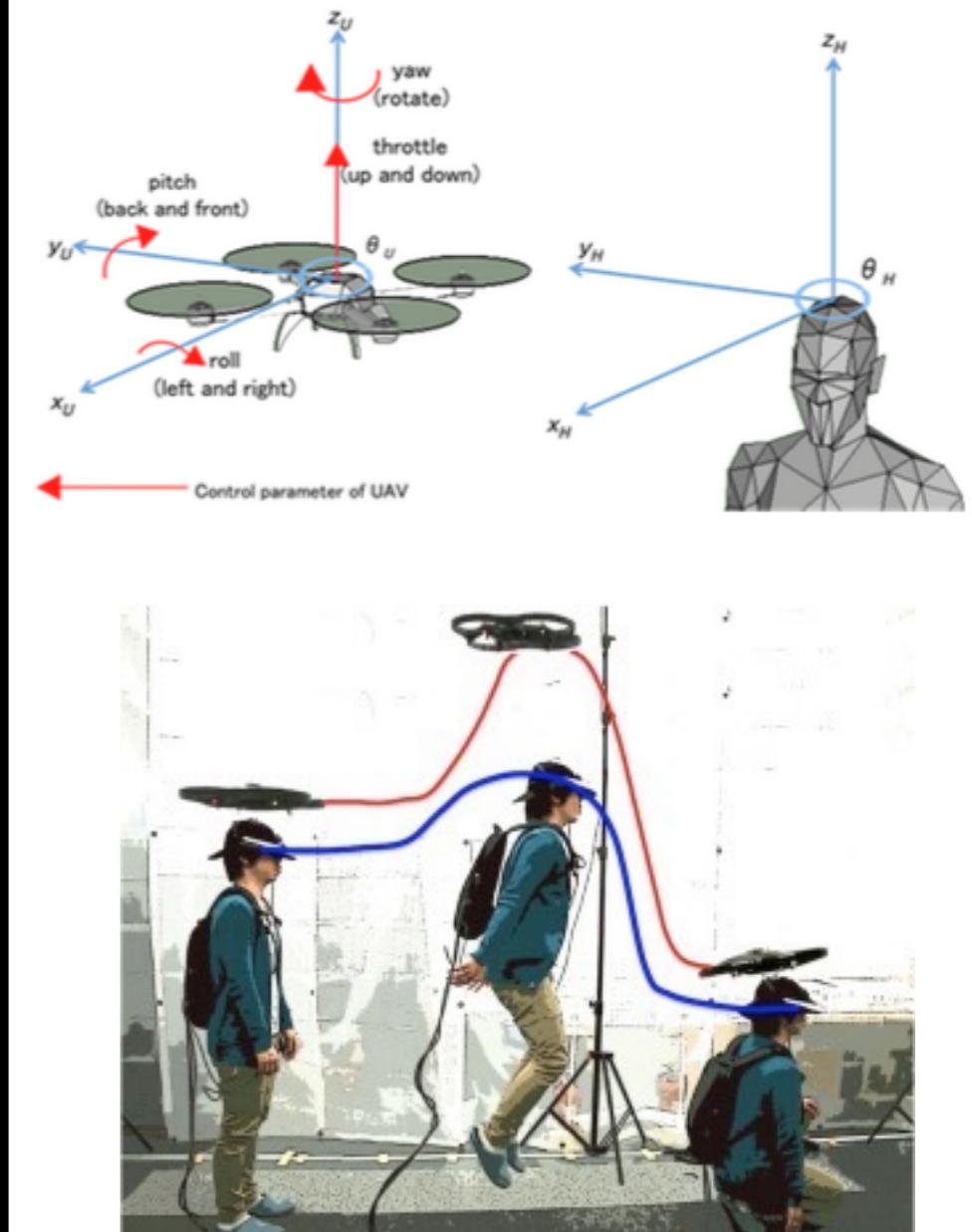
PossessedHand: Techniques for controlling human hands using electrical muscles stimuli, Emi Tamaki, Takashi Miyaki, Jun Rekimoto, CHI2011, paper, ACM

Aided Eye: Eye Activity Sensing for Daily Life



Yoshio Ishiguro, Adiyan Mujibiya, Takashi Miyaki and Jun Rekimoto, Aided Eyes: Eye Activity Sensing for Daily Life, The 1st Augmented Human International Conference (AH2010), Megève, France, 2010.

Flying Head: A Head Motion Synchronization Mechanism for Flying Telepresence



Keita Higuchi, Jun Rekimoto Flying Head: A Head Motion Synchronization Mechanism for Unmanned Aerial Vehicle Control, CHI2013 alt.chi, (2013. 4).

(Augmented) Sports

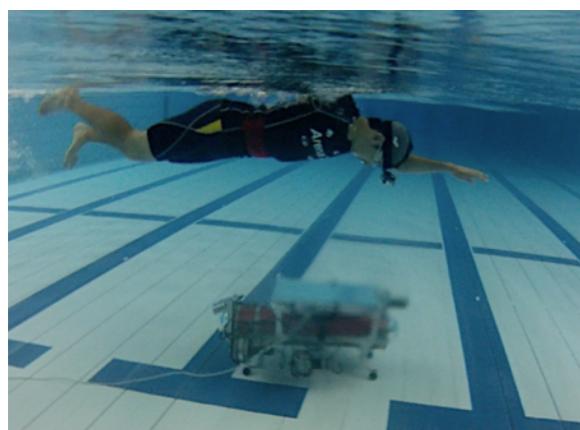
Around Me



Providing self-images is an effective approach to identifying sports players' body movements that should be corrected. Traditional means providing self-images. In this Research, we propose a system, Around Me, providing self-images through a display attached to an escort robot that runs in front of the user.

Junya Tominaga, Kensaku Kawauchi and Jun Rekimoto, "Around Me: A System with an Escort Robot Providing a Sports Player's Self-Images", AH2014 [**Best Paper Award**]

Swimoid



In this research, we propose a new concept of an underwater robot called the “Buddy Robot”. The buddy robot has the ability to give out visual information to human using display devices. The buddy robot also has the ability to recognize and support humans.

Yu Ukai, Jun Rekimoto Swimoid: A Swim Support System using An Underwater Buddy Robot Full Paper, 4th International Conference in Cooperation with ACM SIGCHI(AH2013), March 2013

HoverBall

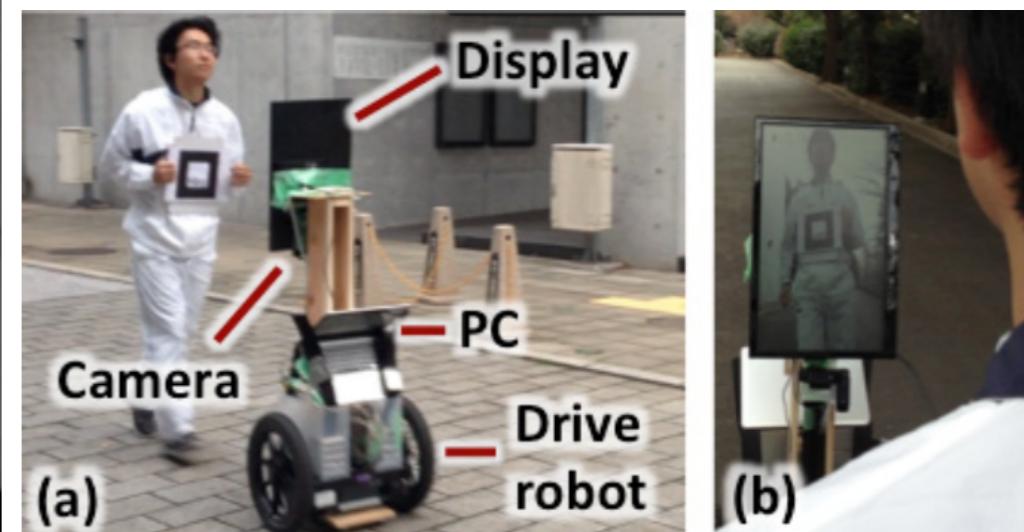
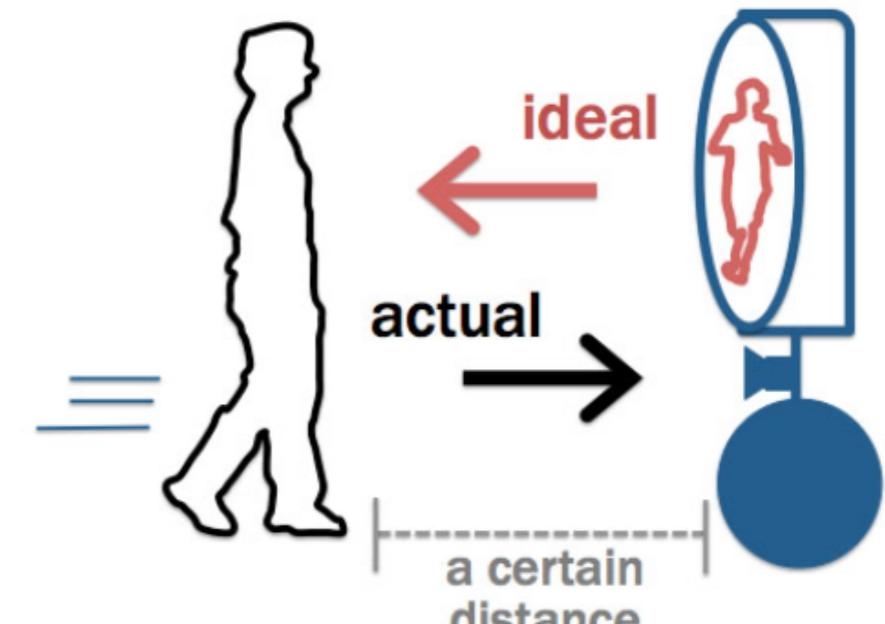


In this paper, we propose a flying ball based on the quadcopter technology. This ball has an ability to stay in the air, and change its location and behavior according to the sports game contexts. With this technology, physical dynamics of a ball can be re-programmed by sports designers

Kei Nitta, Keita Higuchi and Jun Rekimoto, "HoverBall : Augmented Sports with a Flying Ball", 5th International Conference on Augmented Human (AH 2014)

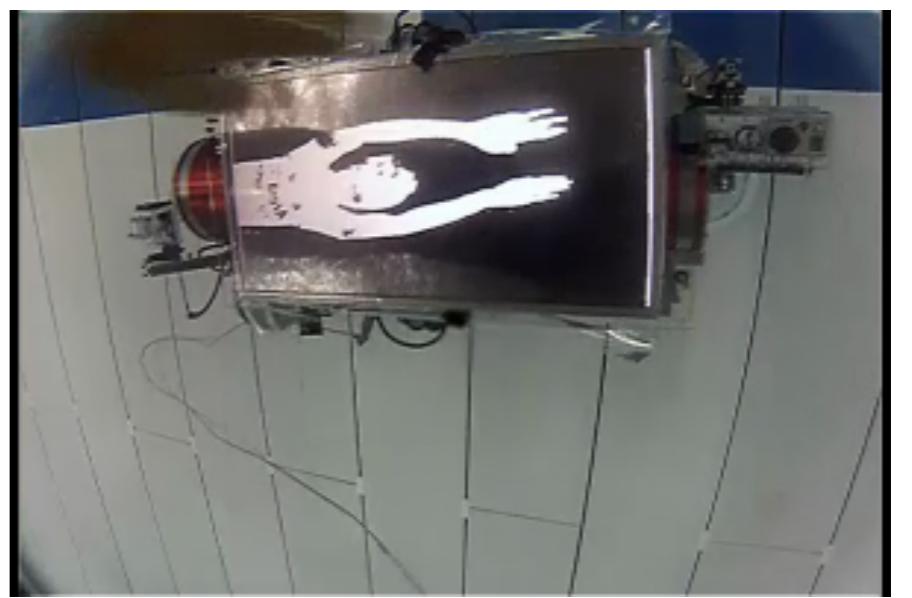
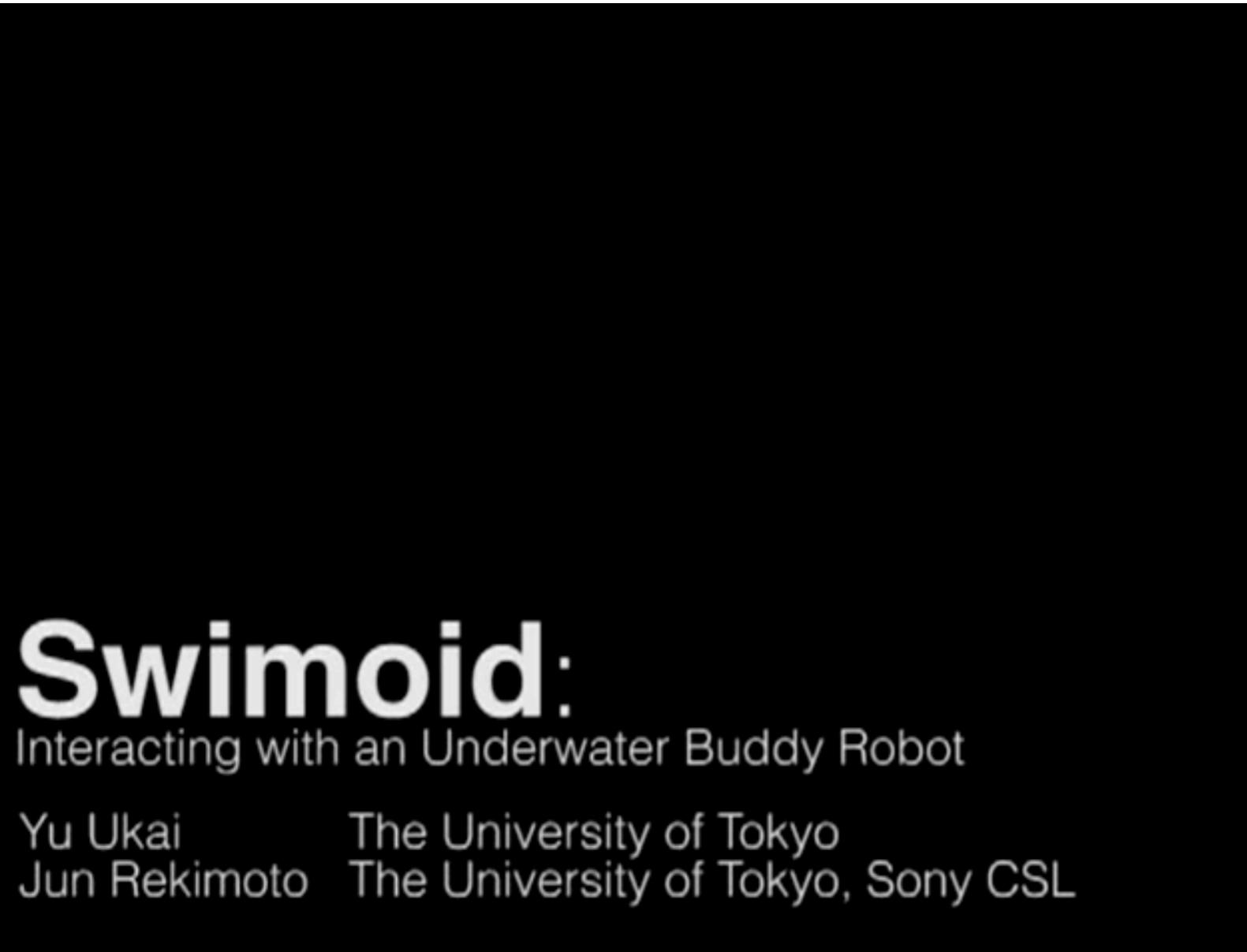
Around Me:

A System with an Escort Robot Providing a Sports Player's Self-Images



Junya Tominaga, Kensaku Kawauchi and Jun Rekimoto, "Around Me: A System with an Escort Robot Providing a Sports Player's Self-Images", AH2014 [Best Paper Award]

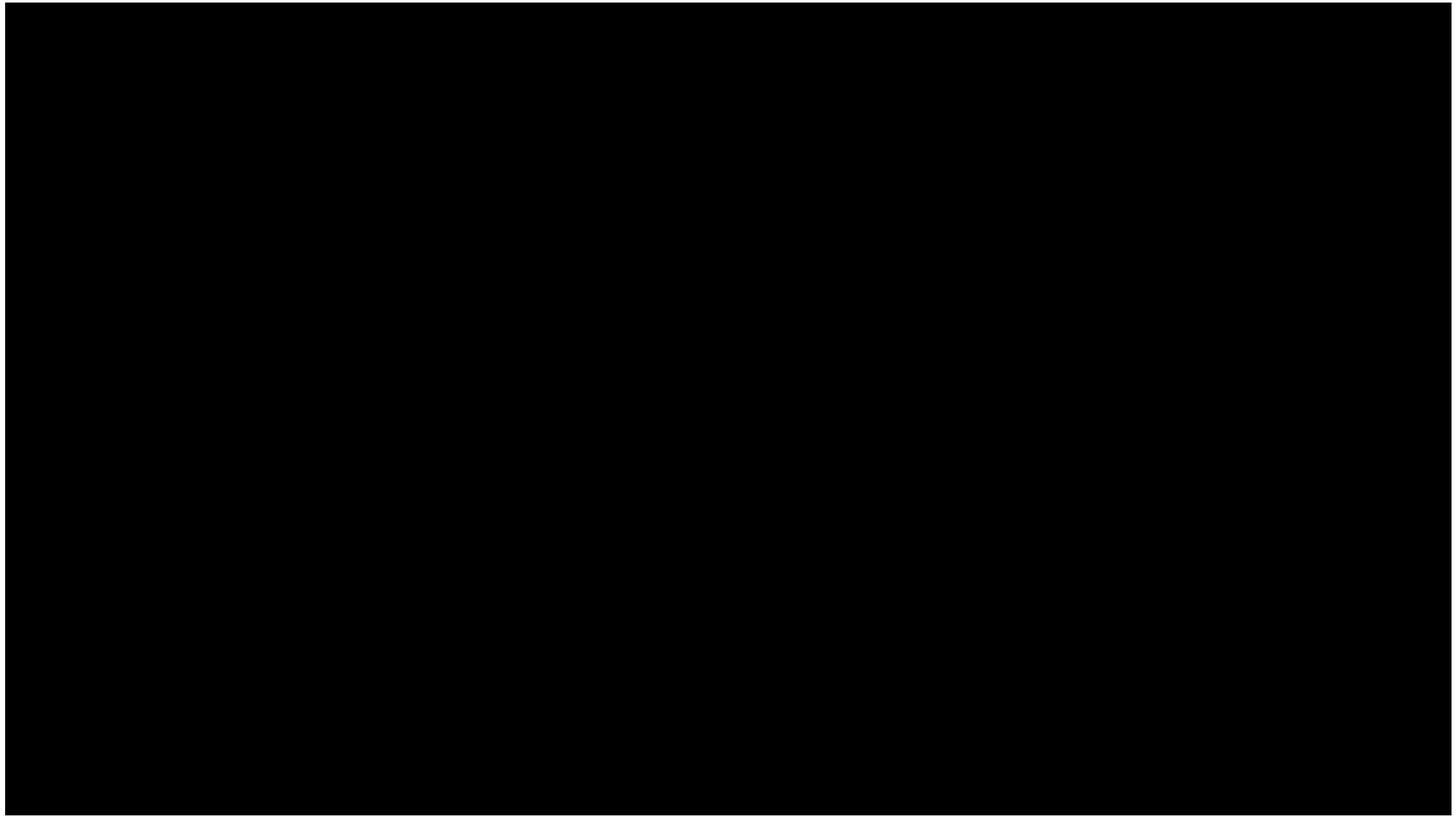
Swimoid: a swim support system using an underwater buddy robot



Yu Ukai, Jun Rekimoto Swimoid: A Swim Support System using An Underwater Buddy Robot
Full Paper, 4th International Conference in Cooperation with ACM SIGCHI(AH2013)

HoverBall:

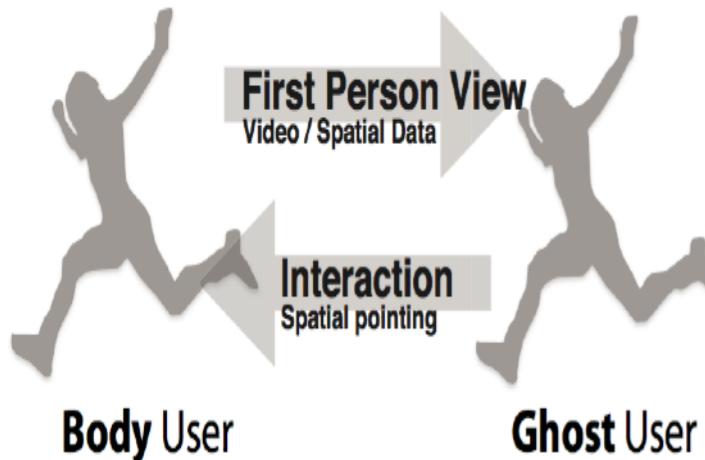
Augmented Sports with a Flying Ball



Kei Nitta, Keita Higuchi and Jun Rekimoto, "HoverBall : Augmented Sports with a Flying Ball",
5th International Conference on Augmented Human (AH 2014)

Human - Human Interaction

JackIn Eye



JackIn is a new human-human communication framework for connecting two or more people. With first-person view video streaming from a person (called Body) wearing a transparent head-mounted display and a head-mounted camera, the other person (called Ghost) participates in the shared 1st-person view. With JackIn, people's activities can be shared and assistance or guidance can be given through other peoples expertise.

Shunichi Kasahara and Jun Rekimoto, JackIn: Integrating First-Person View with Out-of-Body Vision Generation for Human-Human Augmentation 5th International Conference on Augmented Human (AH2014) **[Best Presentation Award]**

JackIn Head

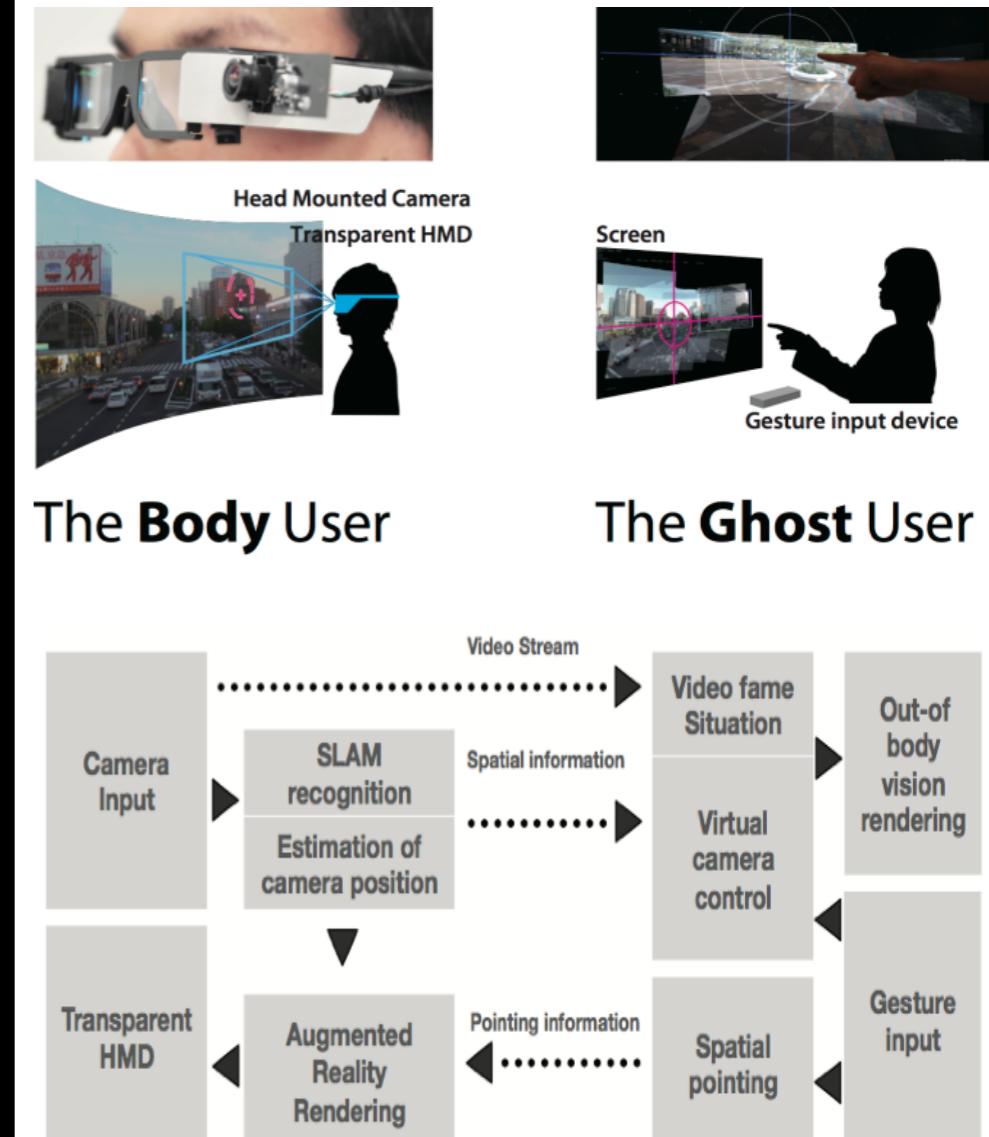


Jack-In Head is an immersive experience transmission architecture with a wearable omnidirectional camera for “Human to Human Telepresence”. In Jack-In Head, the first person wears a head gear with an omnidirectional camera and the omnidirectional video are stabilised to decouple ego-motion and transmitted to others.

Shohei Nagai, Shunichi Kasahara, Jun Rekimoto, LiveSphere: Sharing the Surrounding Visual Environment for Immersive Experience in Remote Collaboration, TEI 2015

JackIn Eye:

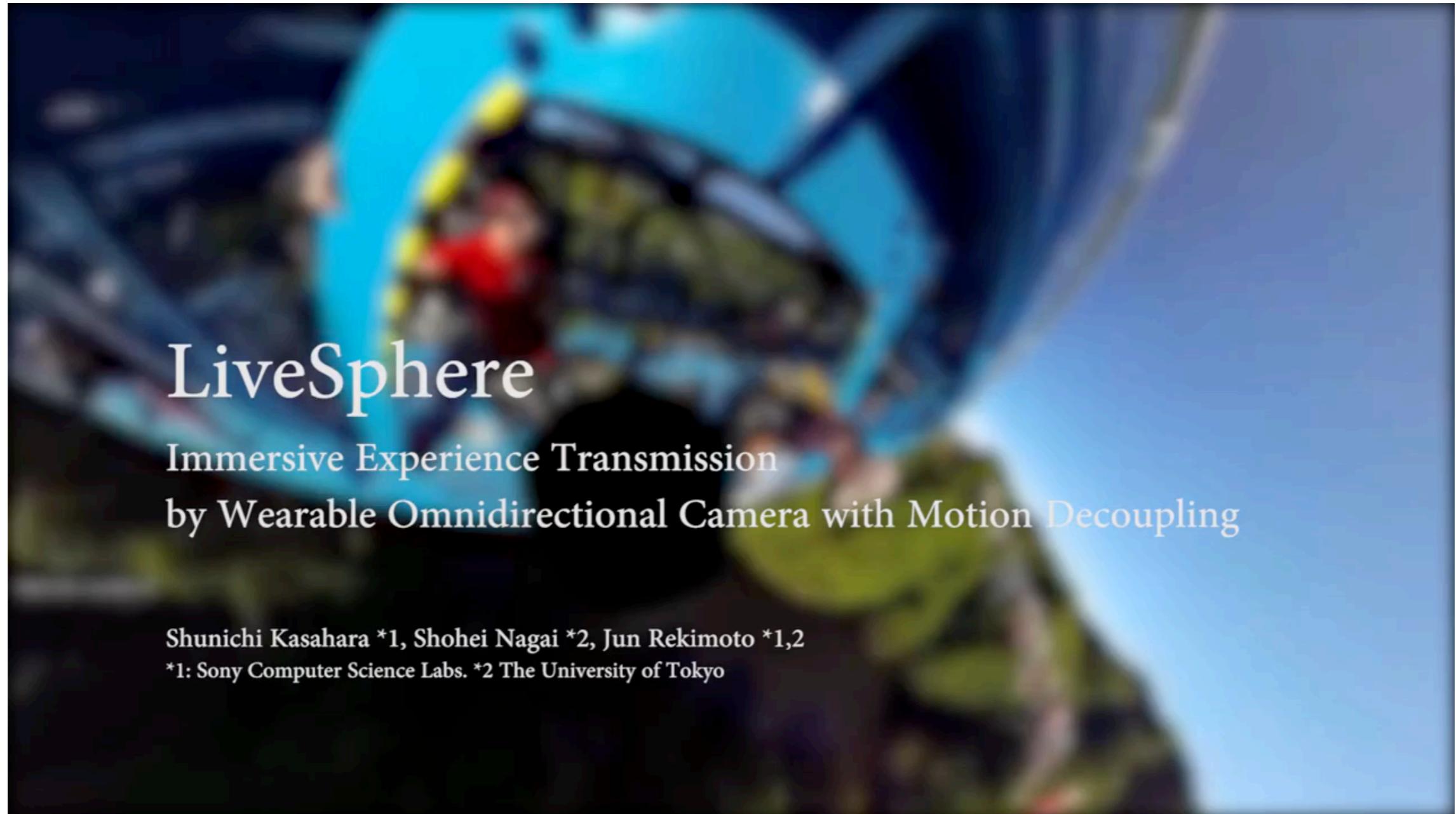
Integrating First-Person View with Out-of-Body Vision Generation for Human-Human Augmentation



Shunichi Kasahara and Jun Rekimoto, JackIn: Integrating First-Person View with Out-of-Body Vision Generation for Human-Human Augmentation 5th International Conference on Augmented Human (AH2014), 2014. **[Best Presentation Award]**

JackIn Head:

Sharing the Surrounding Visual Environment for Immersive Experience in Remote Collaboration



Shohei Nagai, Shunichi Kasahara, Jun Rekimoto, LiveSphere: Sharing the Surrounding Visual Environment for Immersive Experience in Remote Collaboration, TEI 2015