Interacting with Objects in the Environment by Gaze and Hand Gestures

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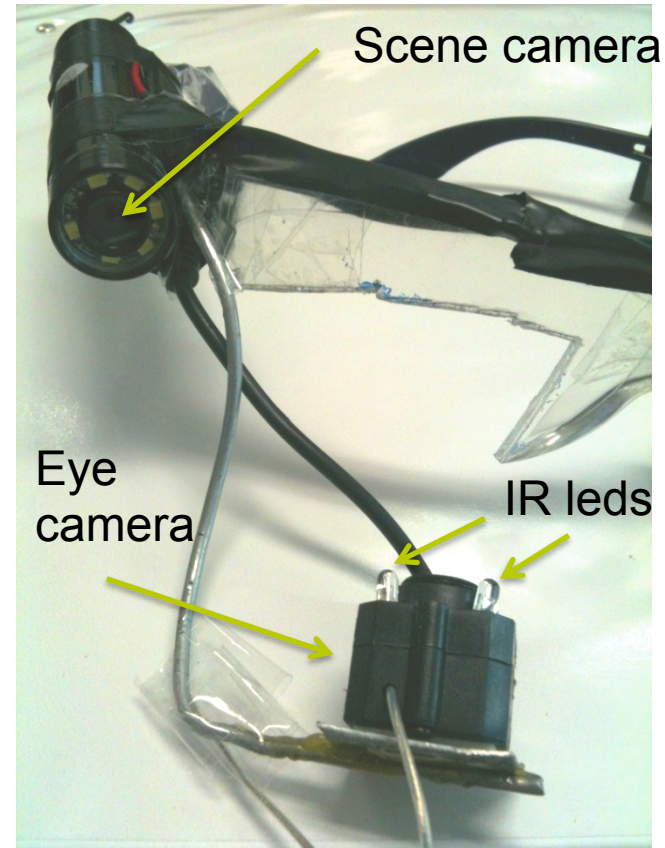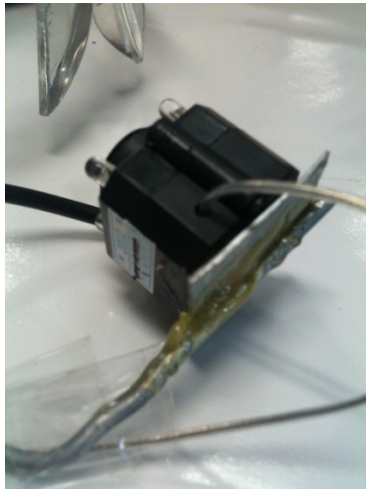**13/08/2013**

CSIRO

Hardware
Prototype glasses

- Cameras

- Safety glasses

- Mounting

- Distributing weight

Scene camera

Eye camera

IR leds

Hardware
Prototype glasses

- Steel wire

- Structural integrity

- Relocation of battery

- Developer: Diako Mardanbegi

Pupil

Glints

Iris

Software – Eye tracking
How it does it work?
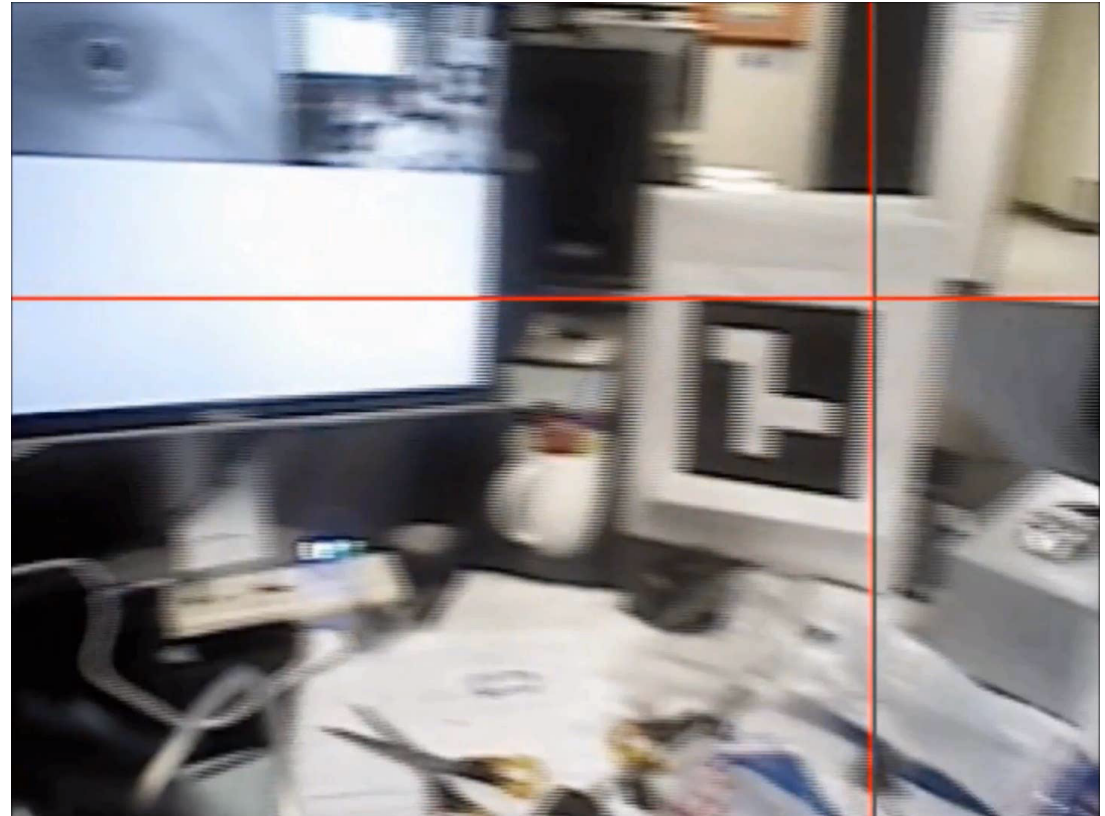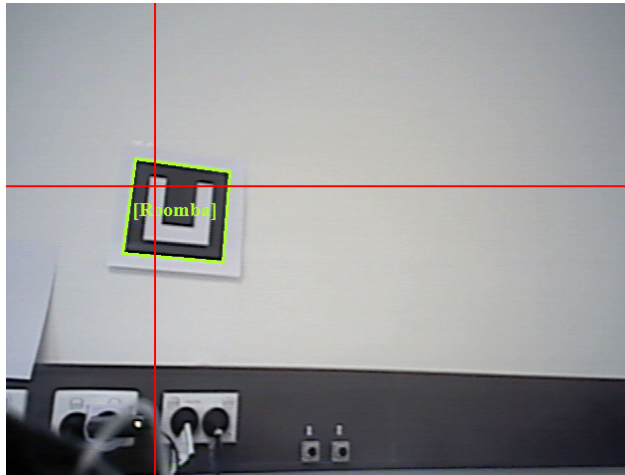
Software – Hand recognition
Is the hand there?

- Threshold
  - YCrCb
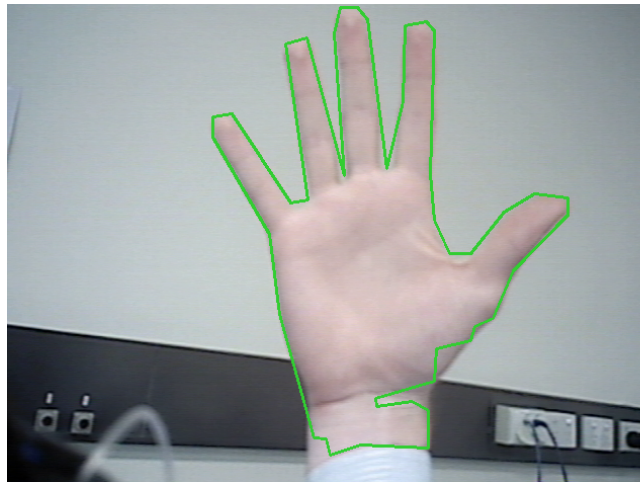 - HSV

- Morphological operations

- Largest contour

- Convex hull

- Convexity defects

- Characteristics of a finger
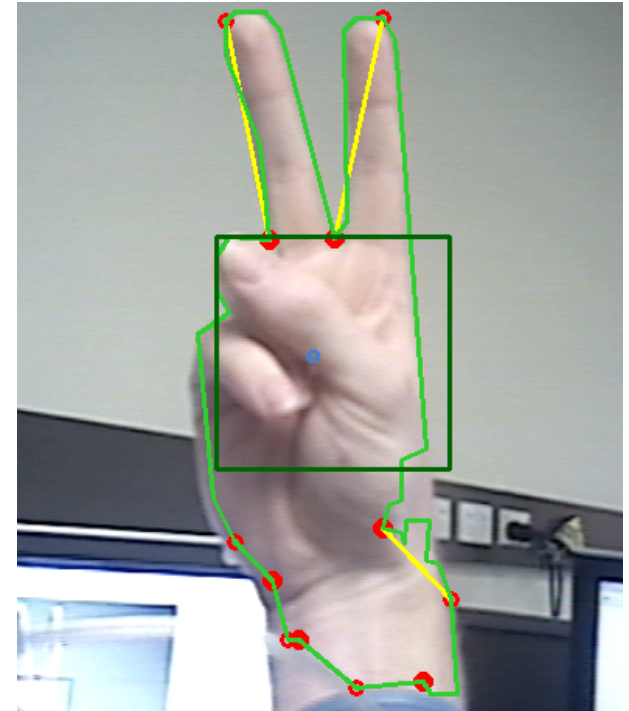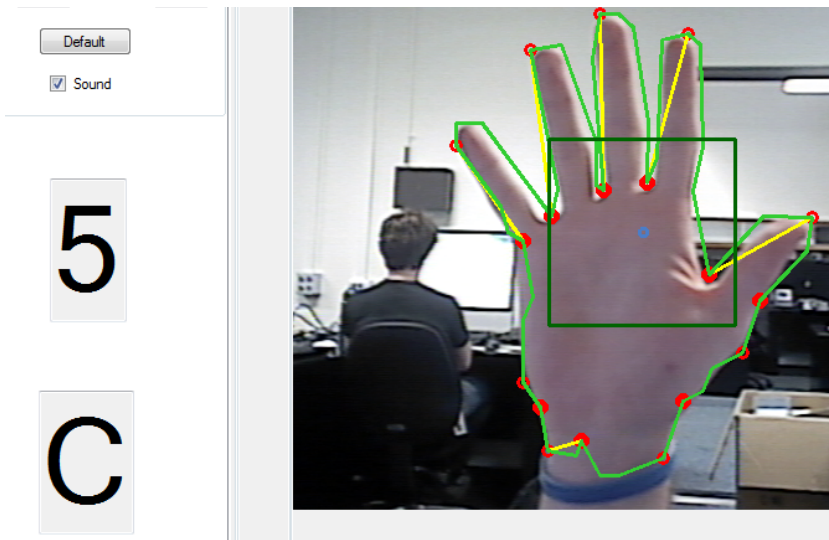
Software – Hand gesture recognition

Construction of low cost gaze tracking glasses and interaction using hand gestures | Jeremy Hales

Implementation

Clients

Server
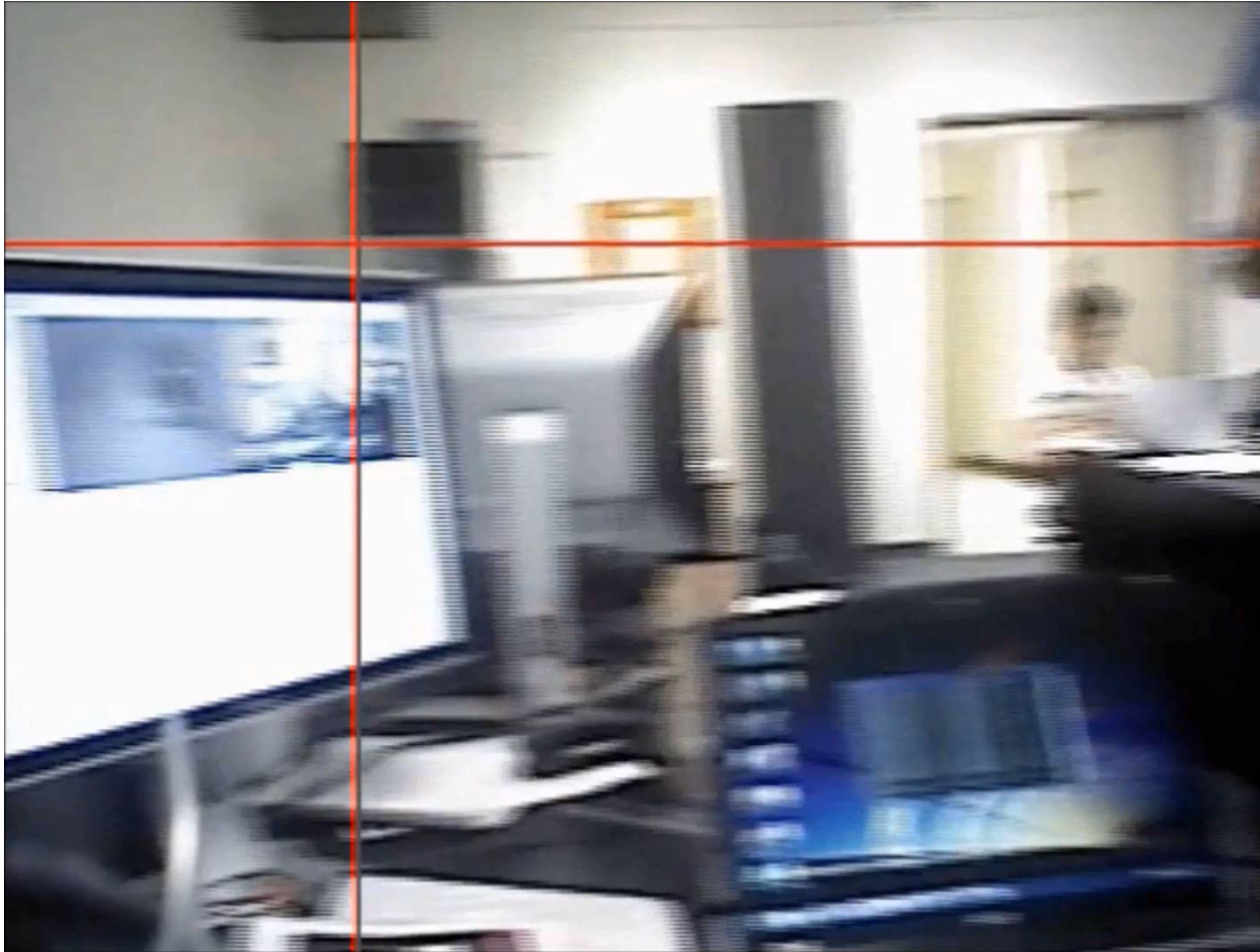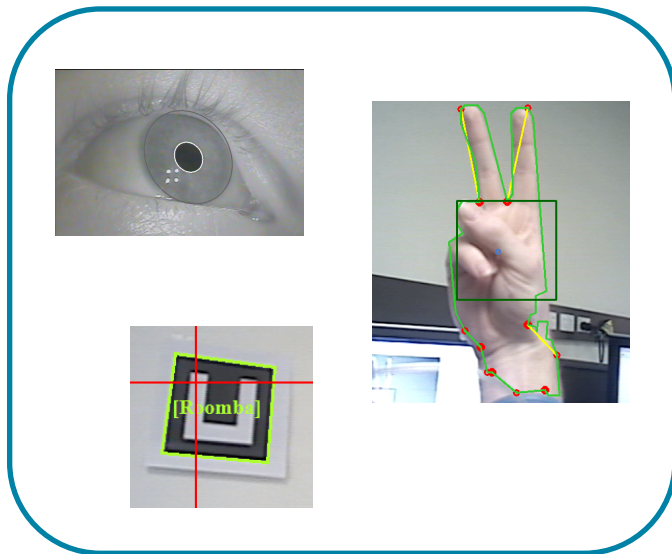
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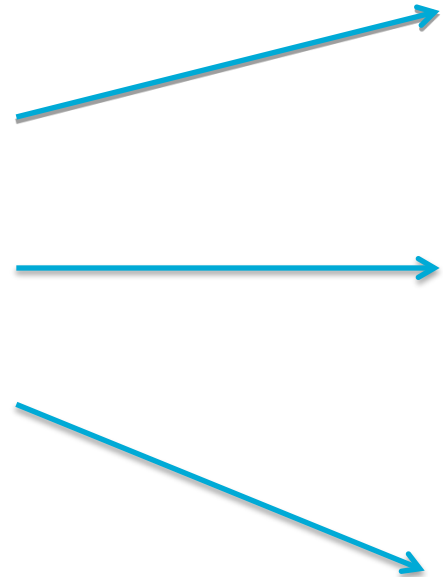
Video

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Thank you