

# VIDEOPROTOTYPING

Alexander Wiethoff

Representing complex relationships, new behaviors and attitudes are an integral part of interaction design.

These can be represented through many means including sketching and making physical prototypes.

However, capturing a journey **over time** requires a linear medium like video.

# Why Prototype ?

Prototypes help to validate the value of new ideas and test initial assumptions.

Prototypes can also help to convince others and yourself.

## Benefits:

Low resource and time investment

Faster feedback and a participatory approach

Early Validation in the development life-cycle

# "Just Enough Prototyping"

Understand your audience and choose the right level of resolution and fidelity.

Judge the time and resources available.

Go for the easiest and simplest track, don't overdo you prototype for a given context.

Low Fidelity

High Fidelity



Open Discussion

Sharp Opinions

Prompting Required

Self Explanatory

Quick and Dirty

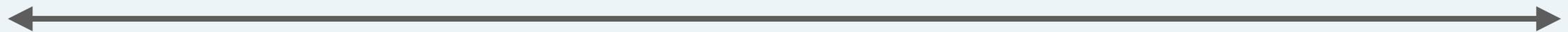
Deliberate and Refined

Early Validation

Concrete Ideas

Low Resolution

High Resolution



Less Details

More Details

Focus on core interactions

Focus on the whole

Quick and Dirty

Deliberate and Refined

Early Validation

Concrete Ideas

# Concept Development **applied**

# Storyboard and **Keyframes**

# Example: „Ensemble Computing“

Client : INTEL

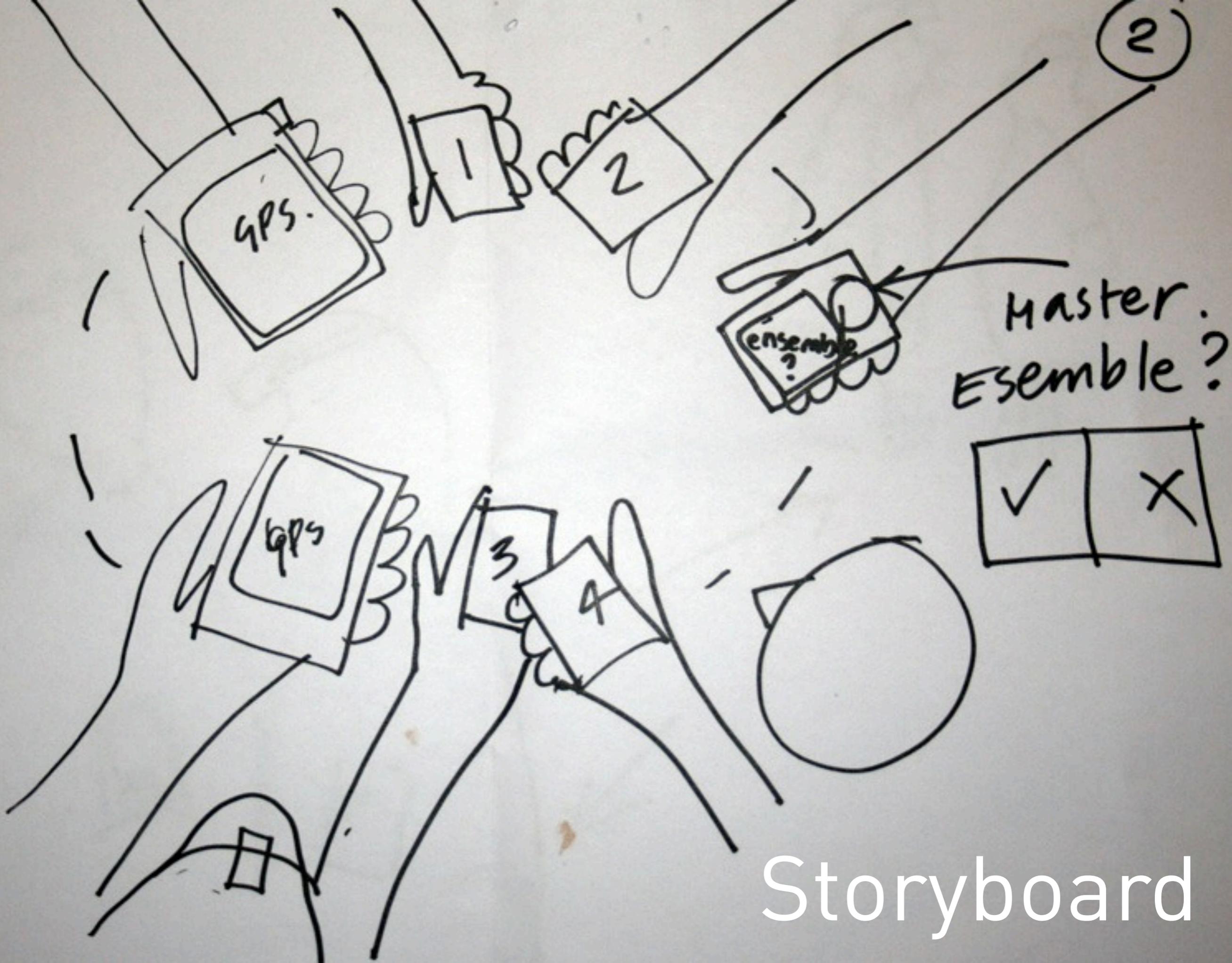
Deliverable : 4 High Fidelity Video Scenarios

**First Step**

Scenario generation



Brainstorming

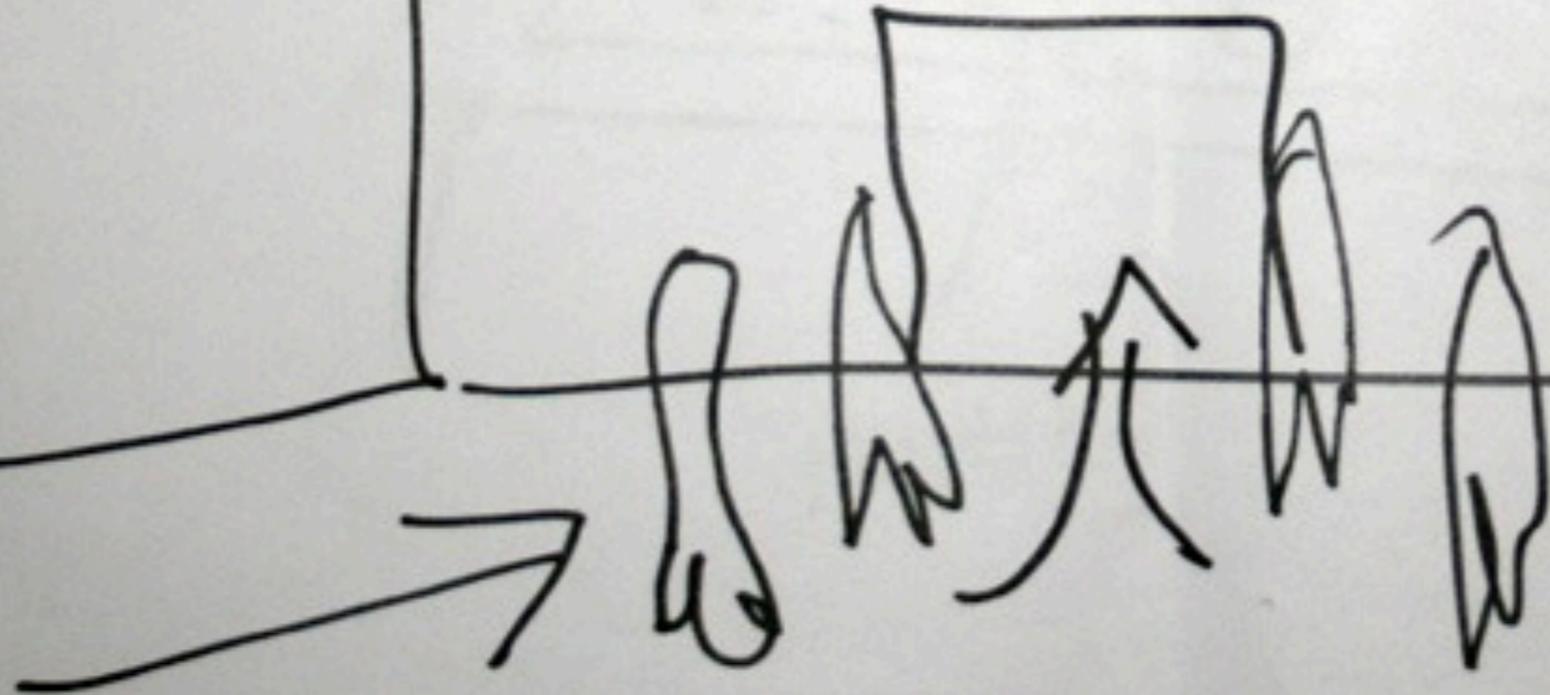
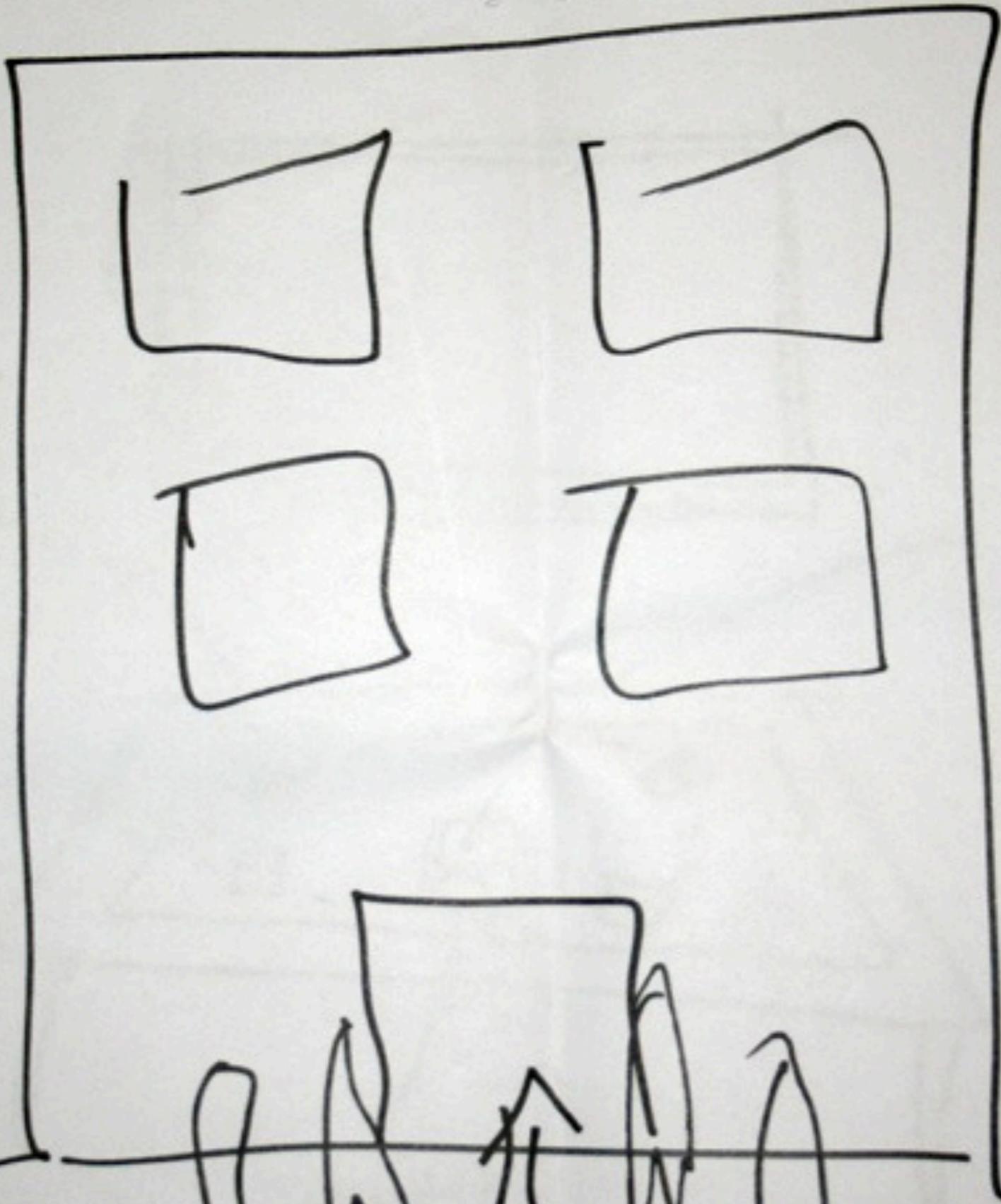


Storyboard

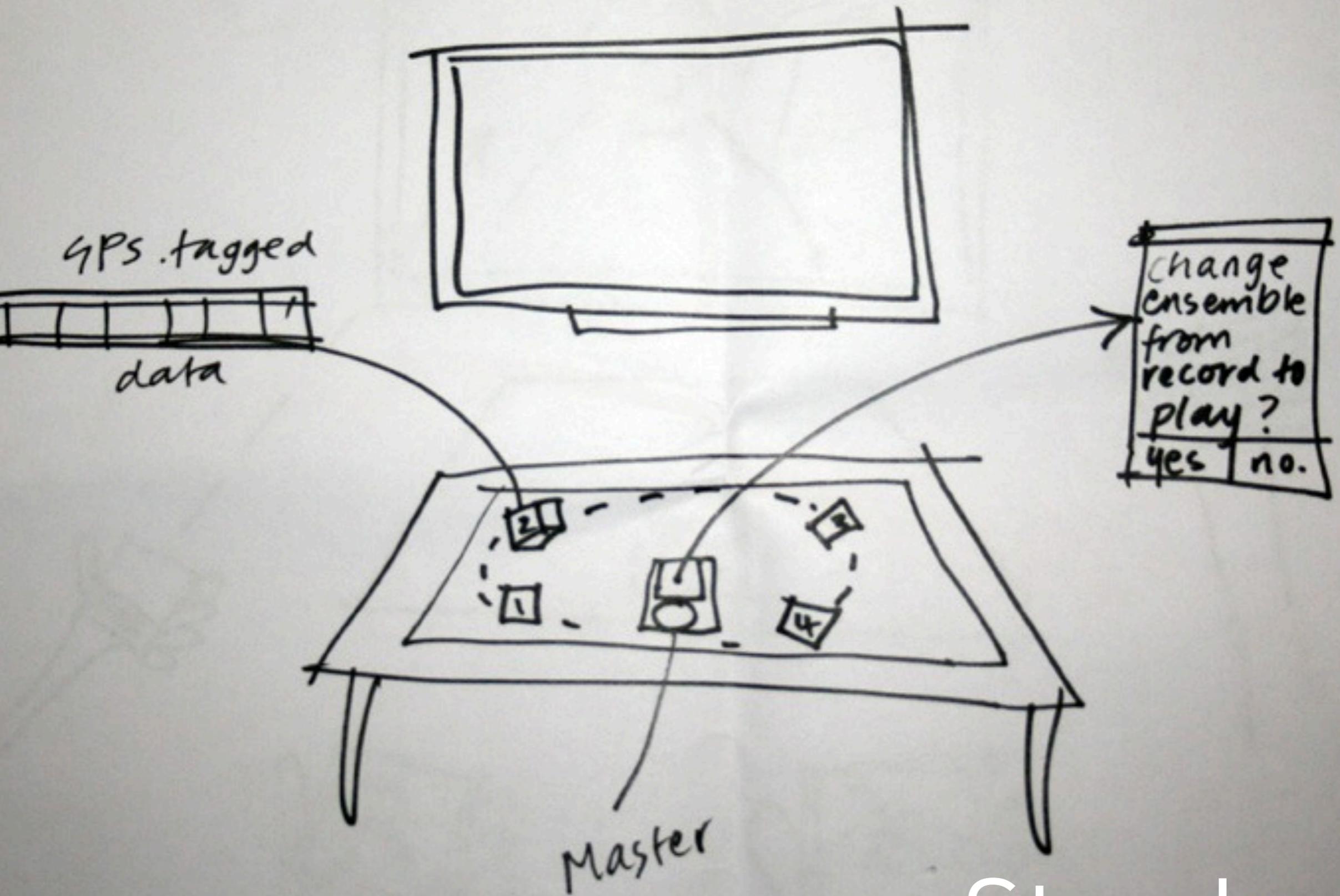


Storyboard

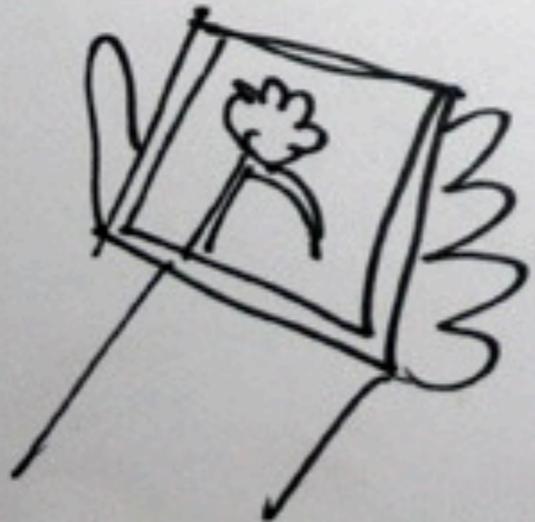
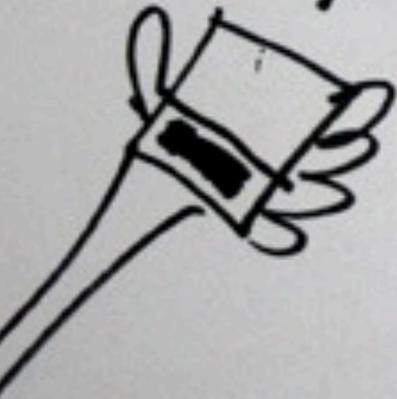
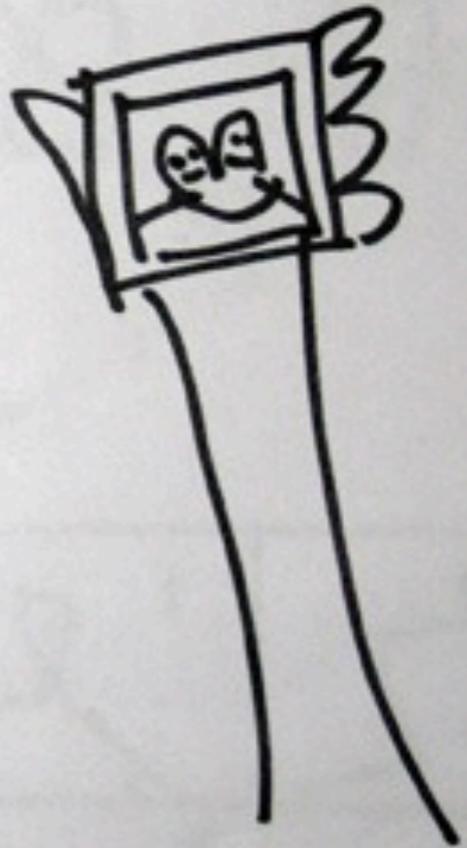
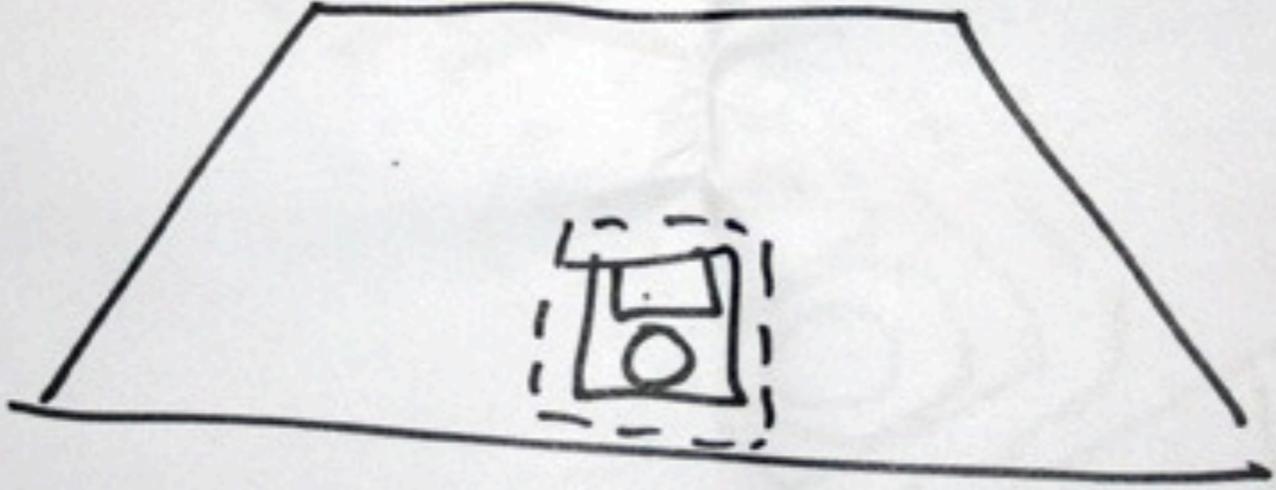
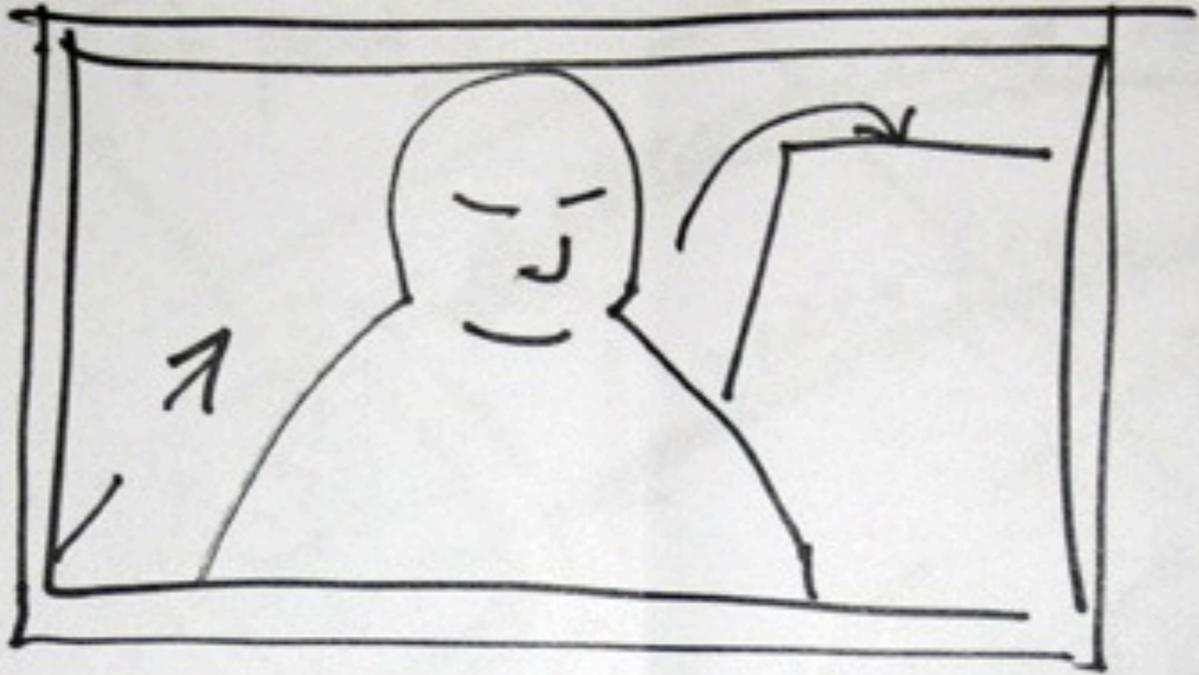
5



Storyboard

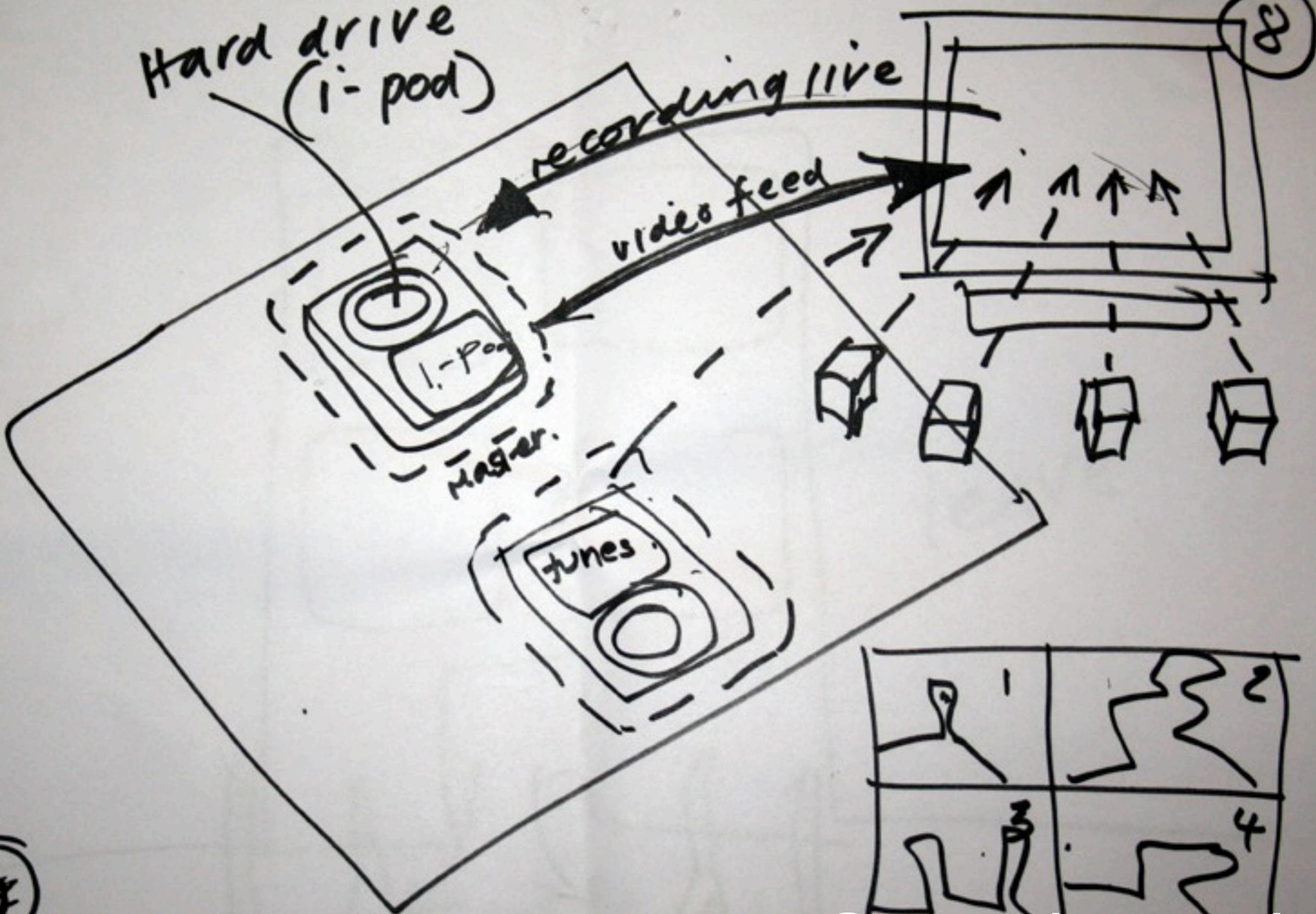


# Storyboard



Storyboard

Hard drive  
(i-pod)



Storyboard

# Second Step

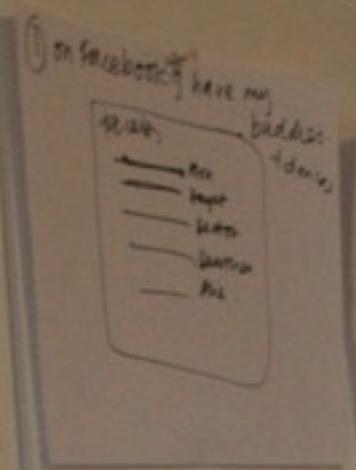
Storyboard presentation



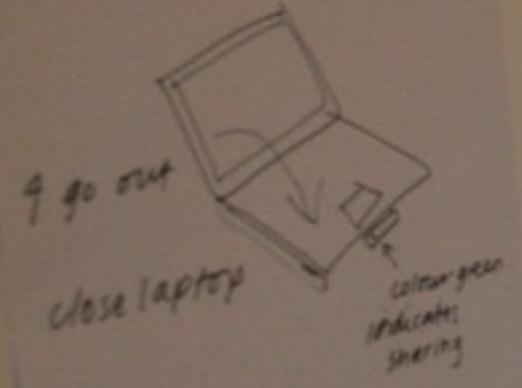
ALIC



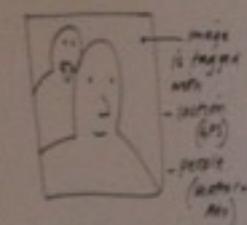
3



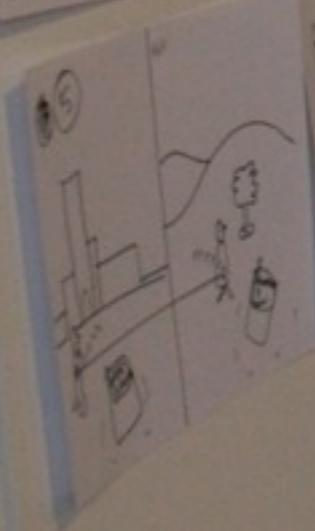
feature



4



6



5

Mid-Presentation



Mid-Presentation

# Third Step

Shooting the Keyframes

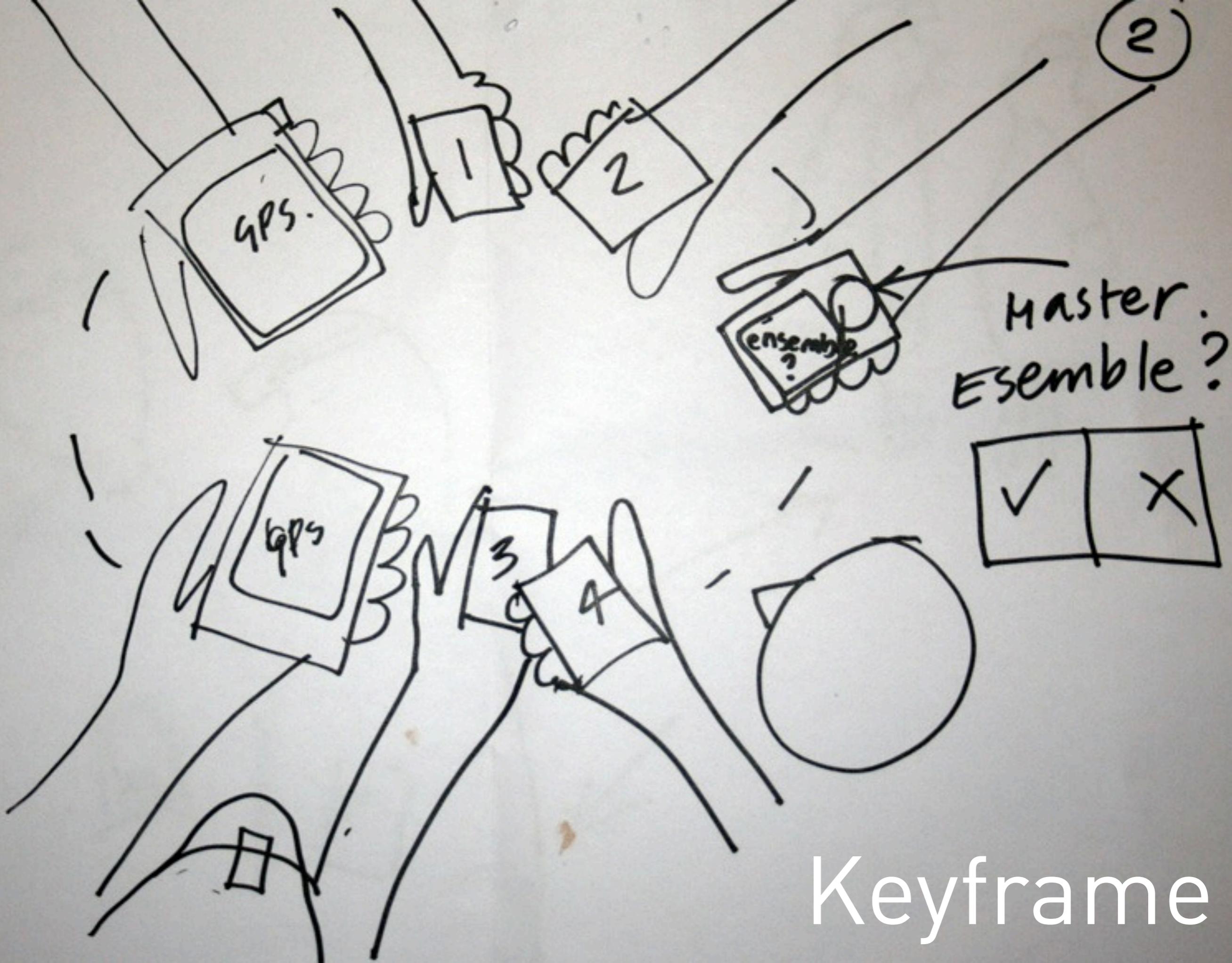


Video Shooting



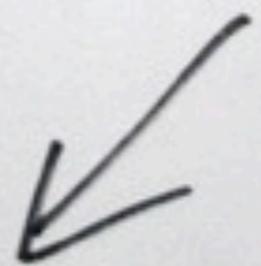
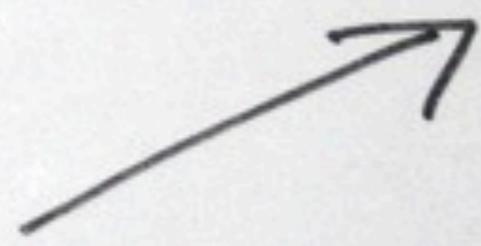
Video Shooting







Video Shooting

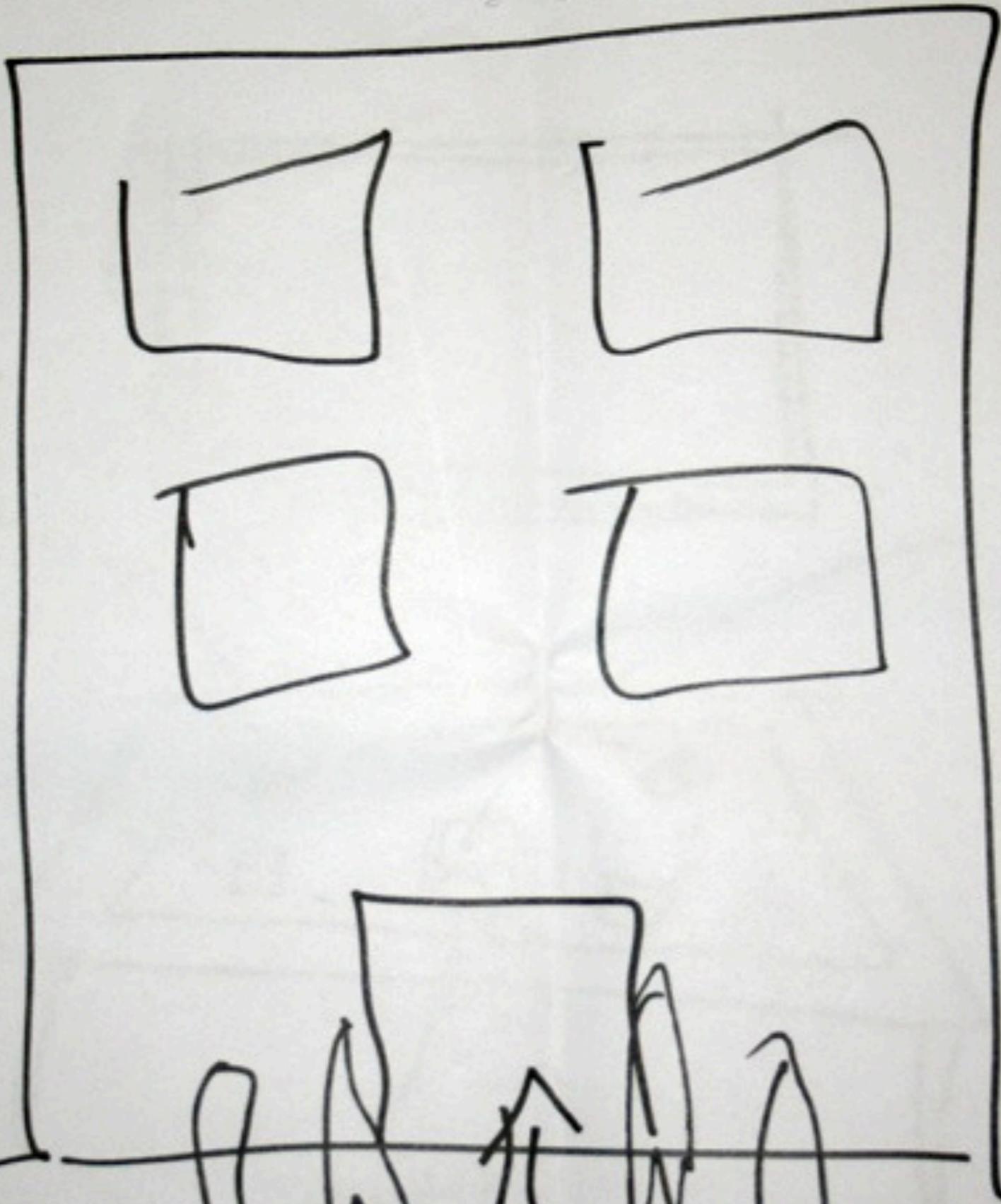


Keyframe



Video Shooting

5

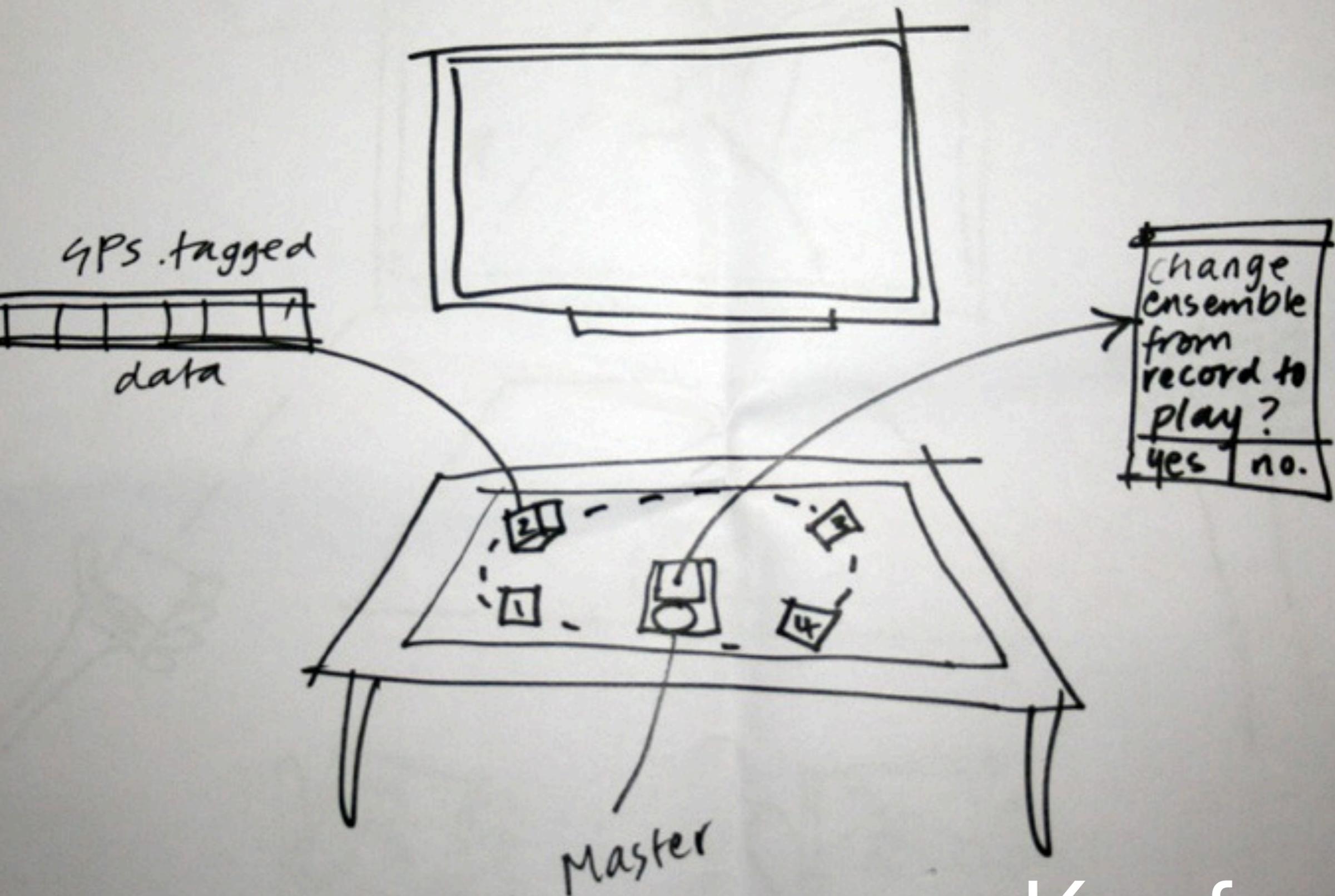


Keyframe

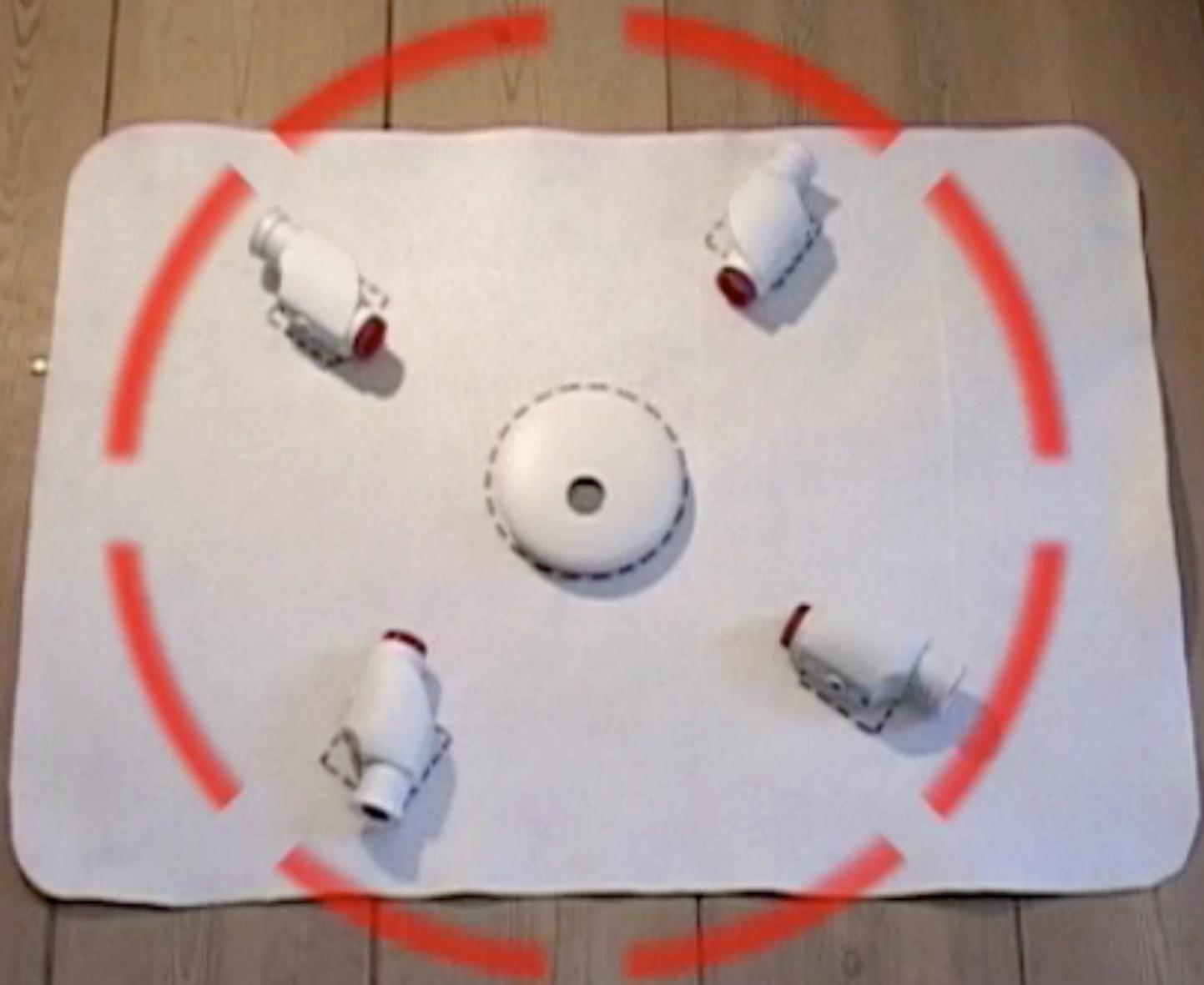


Video Shooting

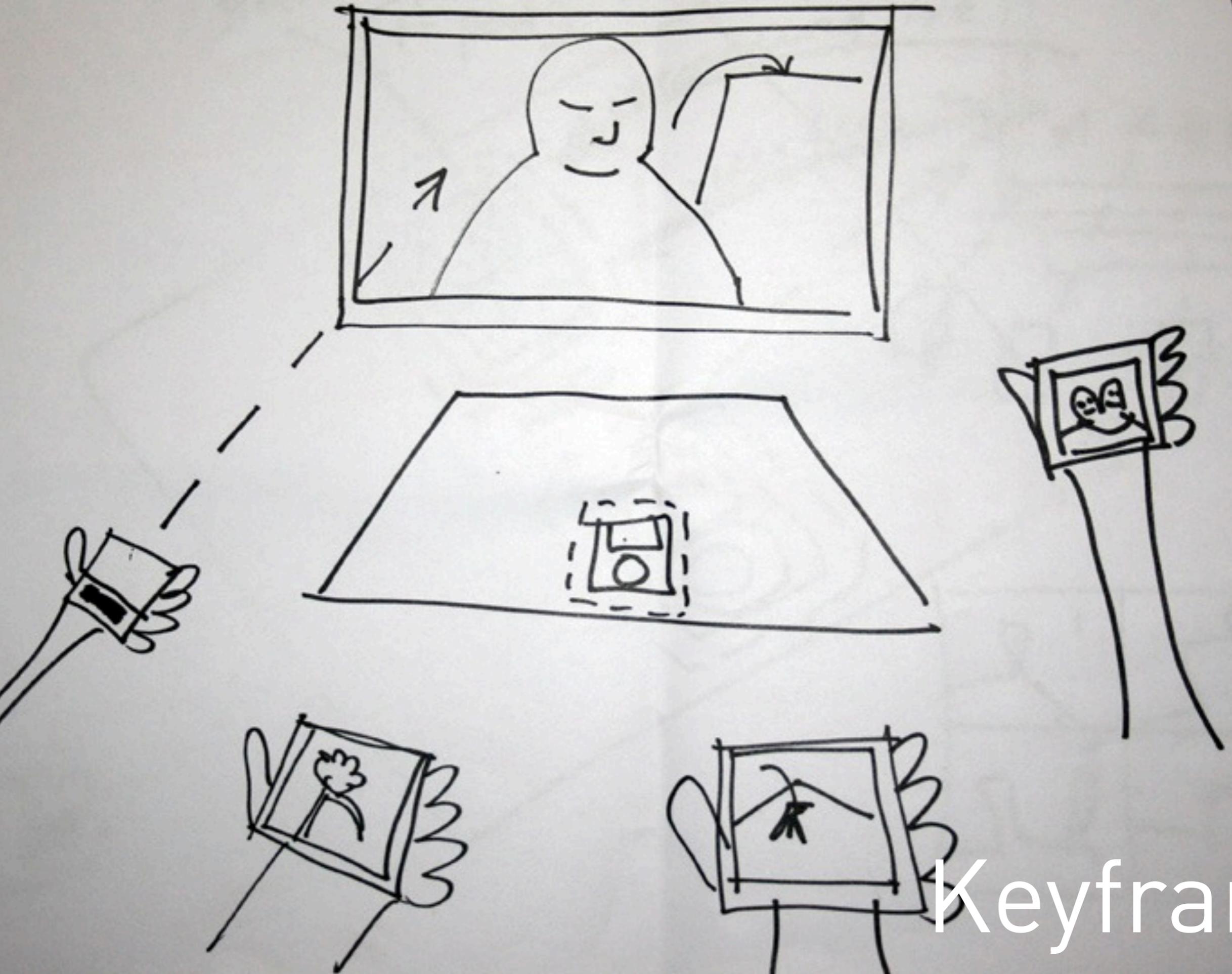
6



Keyframe



Video Shooting



Keyframe



Video Shooting

# Fourth Step

Editing



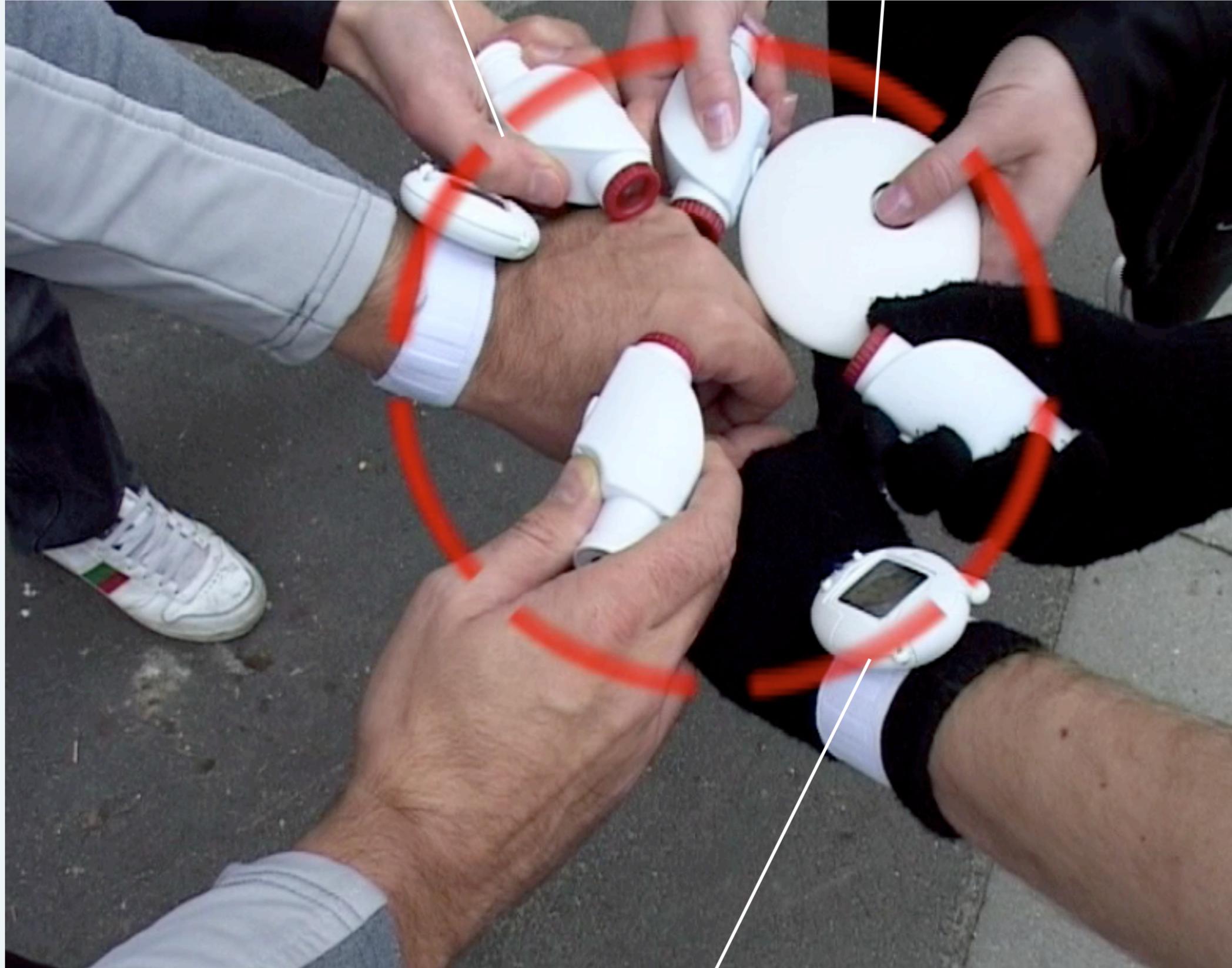
Editing

# Fifth Step

## Presentation

WiFi video camera

Wireless hard drive



Bluetooth GPS system

# Video Prototype

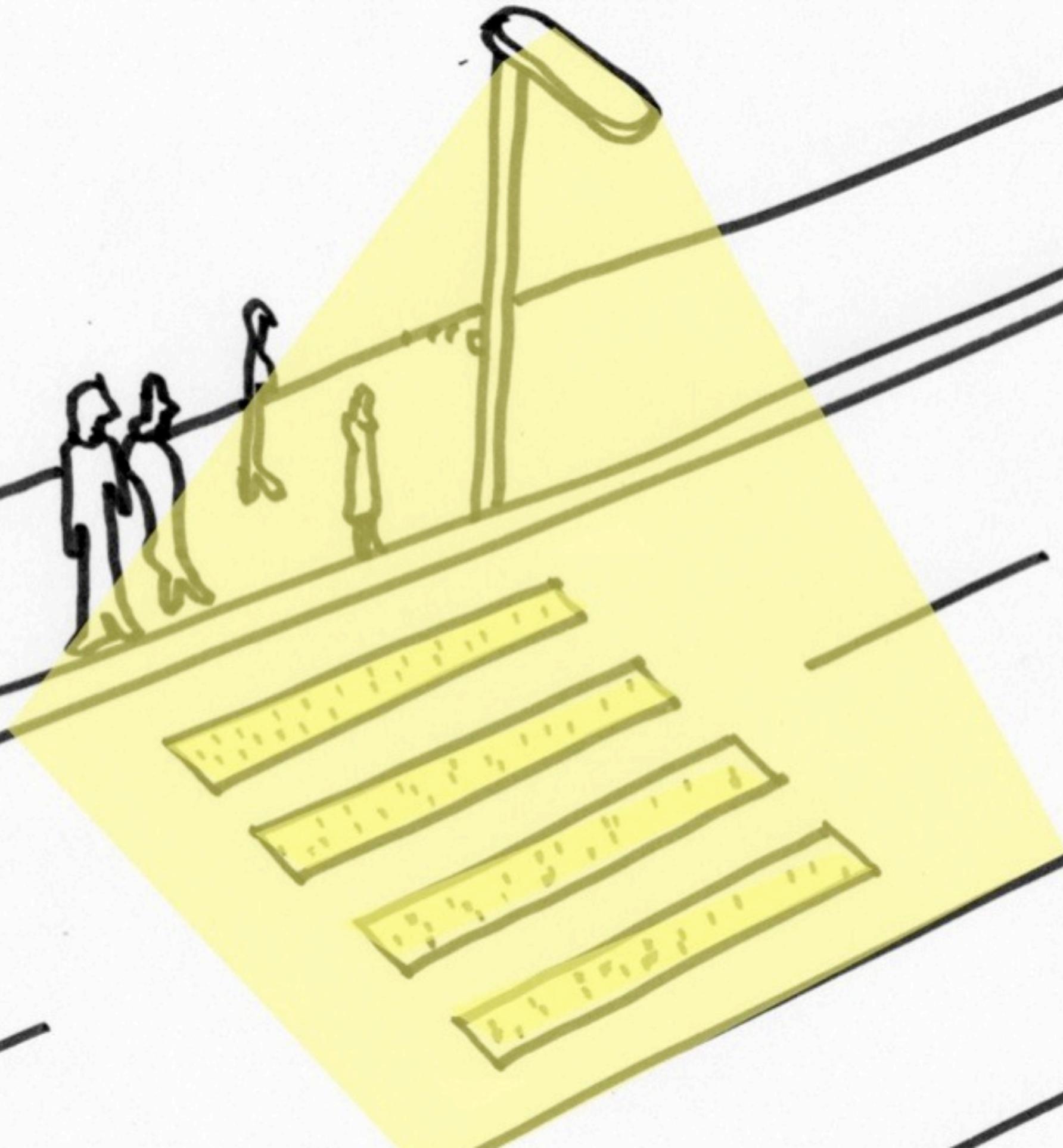
# Video Prototype

## (2nd Example)

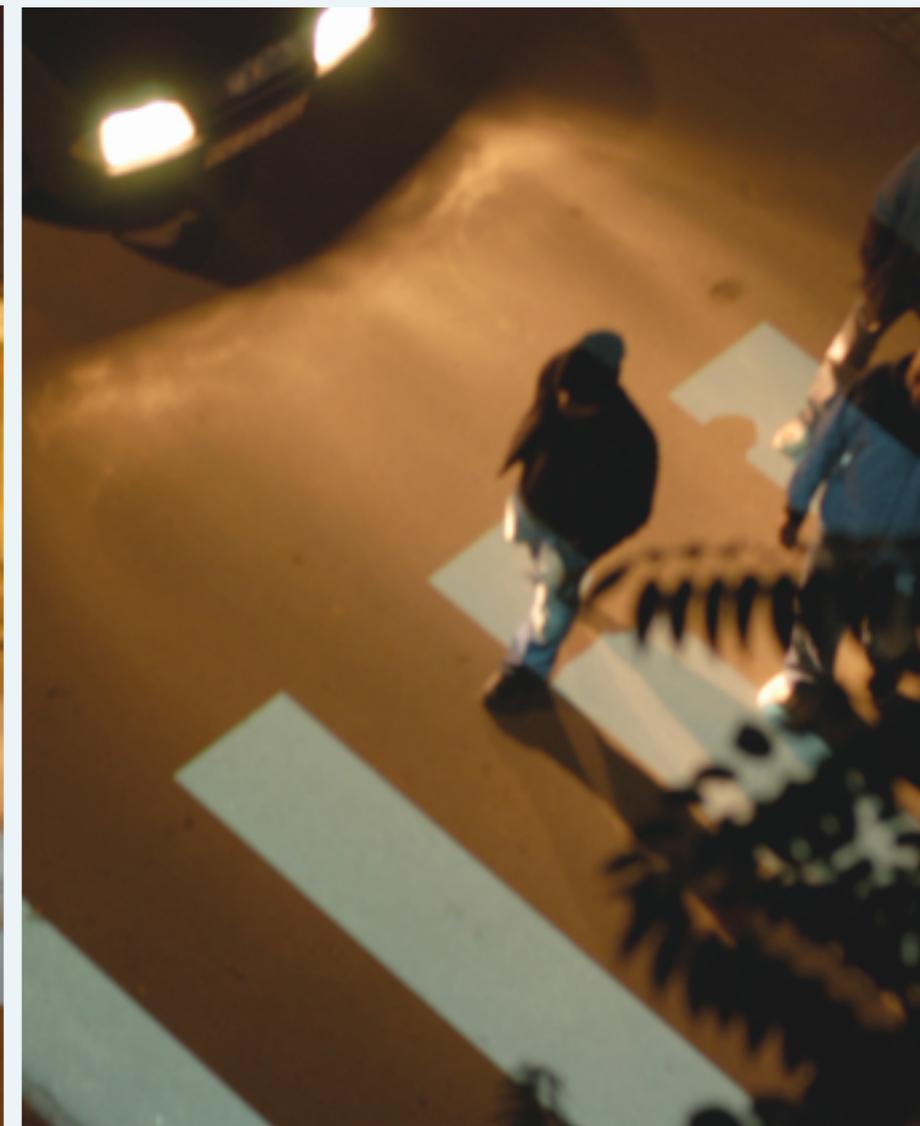
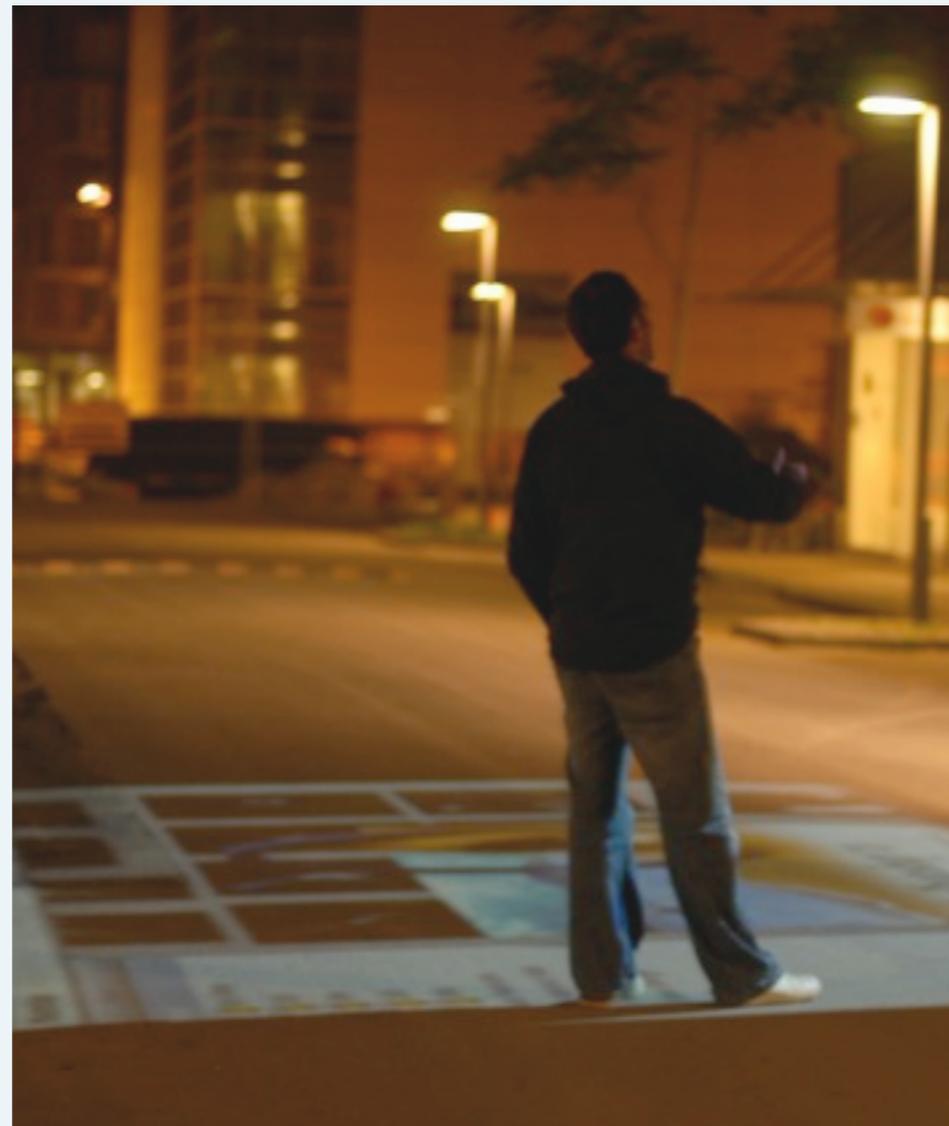
**Low resolution**

**High fidelity**

**(crossing on demand)**



# The Smoke & Mirror Approach





## Scenarios as Prototypes

Creating scenarios as a video is an interesting way to prototype intangible experiences or services. It works as both a process tool and a communication medium.

# Inspiration from camera shots and film making



**Extreme long shot  
(wide shot)**  
A view showing details of  
the setting, location, etc.



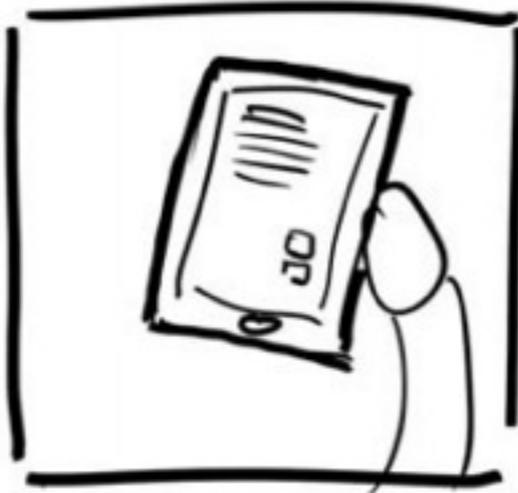
**Long shot**  
Showing the full height  
of a person.



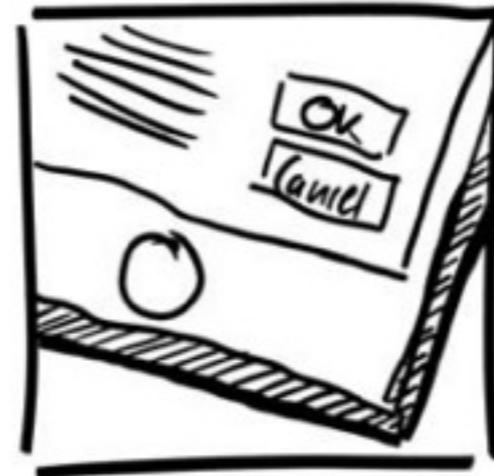
**Medium shot**  
Shows a person's head  
and shoulders.



**Over-the-shoulder shot**  
Looking over the shoulder  
of a person.



**Point of view shot  
(POV)**  
Seeing everything  
that a person sees  
themselves.



**Close-up**  
such as showing details of  
a user interface a device  
the person is holding.

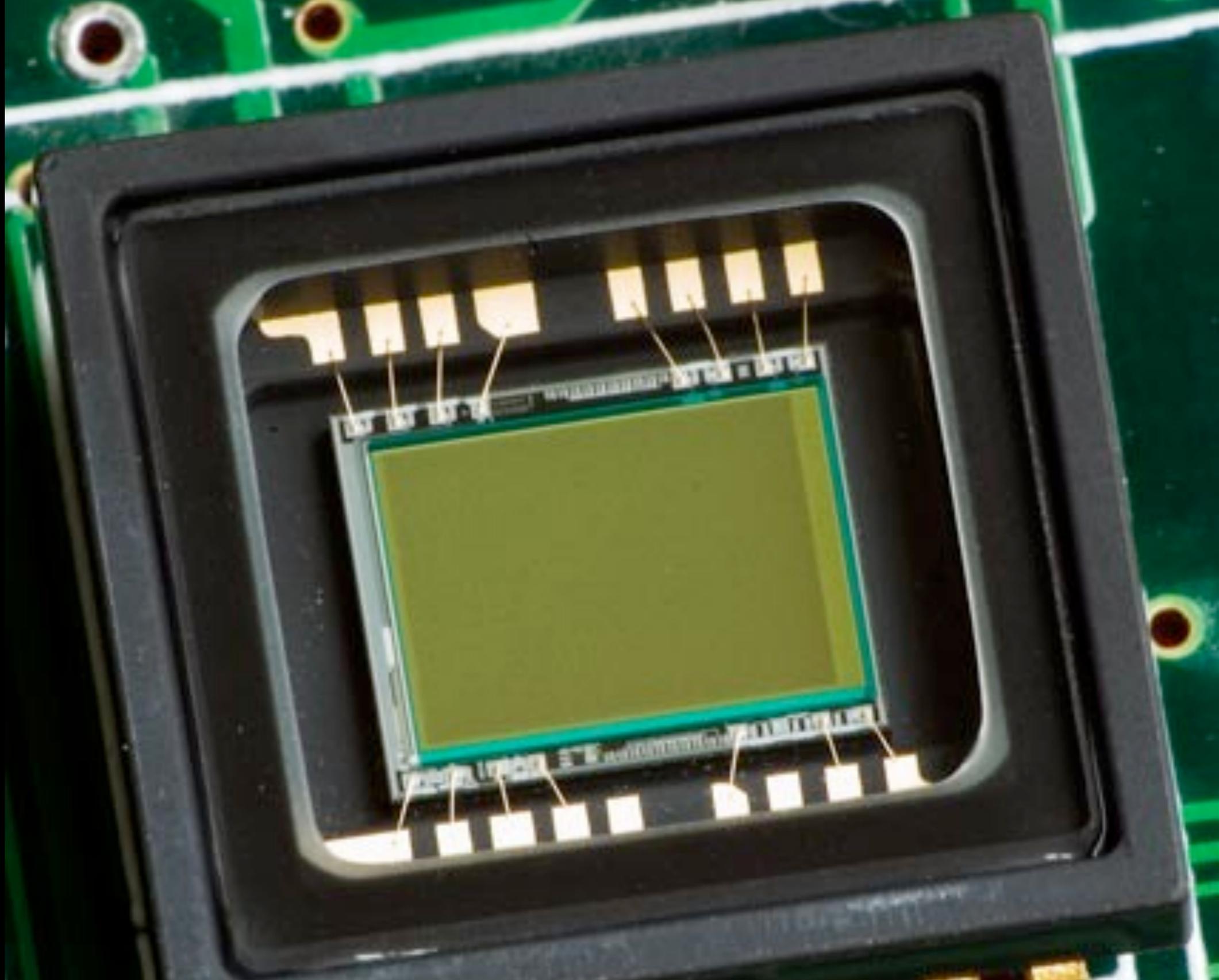


# Choosing the right camera

# Choosing The Right Camera

A “3 CCD” camera which uses a separate chip for red, blue, and green, giving a more “true to life” look to the video.

HD (high definition) camera’s have a much higher video quality than both one chip and three chip SD (standard definition camera’s)



CCD chip in a camera

# Plan

What's the video about (in one sentence)?

Who's the audience? (YouTube vs. Client)

What are we going to see? (Scenario)

What about audio? (Audio can make or break it)

# Quick and Efficient Tools:

Movie Maker vs. iMovie

# MAC vs. PC

iMovie is a much more powerful program than Movie Maker, but if you decide on iMovie you are forced to buy an Apple computer.

Overall iMovie is a much better beginner editing suite as it has way more effects than Movie Maker.

Tasks

New Folder

Import

- From digital video camera
- Videos
- Pictures
- Audio or Music

Edit

- Imported media
- Effects
- Transitions
- Titles and credits

Publish to

- This computer
- DVD
- Recordable CD
- E-mail
- Digital video camera



Frangipani Flowers  
6/2/2005 3:41 PM



Garden 4/9/2004 8:17 AM



Green Sea Turtle  
5/10/2005 10:45 AM



Humpback Whale  
11/30/2005 1:20 PM



Oryx Antelope 4/22/2005  
5:20 PM



Toco Toucan 6/24/2005  
12:22 PM



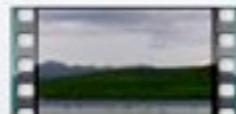
Tree 9/3/2005 6:40 PM



Waterfall 5/27/2005 8:15 AM



Winter Leaves 1/17/2005  
6:43 AM



Storyboard: Garden 4/9/2004 8:17 AM



0:00:20.77 / 0:01:24.50



Split

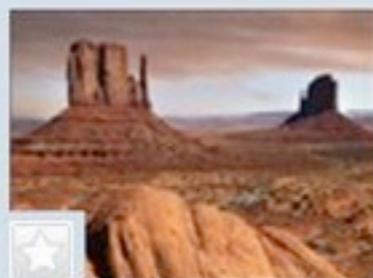
Storyboard



erfly



Lake



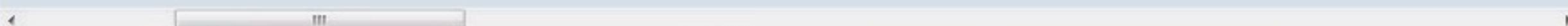
Desert Landscape 2/12/20...



Garden 4/9/2004 8:17 AM



Winter Leaves 1,



iMovie

Project Library 100% Project - Touch-Less Interfaces

42s - 53 Royalty Free 053

3s - Touch-le...

42s total

5s

#383838  
#3B3B3B  
#3D3D3D  
#404040  
#424242  
#454545  
#474747  
#4A4A4A  
#4D4D4D  
#4F4F4F  
#525252  
#545454

Event Library

- Last Import
- iPhoto Videos
- 2011
  - Paperbox3D\_BMW
  - Phantom\_Station
- 2010
  - sketching with hardware final
  - IRIS\_TEST
  - New Event 9-17-09
  - swh\_final day
  - Swh\_2010\_day6
  - SWH\_Day2\_3 - Day 2
  - SWH\_Day2\_3 - Day 1
  - SWH2-Concept Day
- 2009
  - sketching with hardware - Day 2

No video clips match the current selection.  
Choose a different option from the Show pop-up menu, below.

Show: All Clips

0s total

5s

**Editing Basics :**

**Montage vs. Continuity**

**Example:**

**Continuity**

**Nike Commercial**



Continuity :

- a logical coherence between shots
- the viewer shouldn't "feel" the cut
- the focus is on the story

# Example: Montage

## Alfred Hitchcock



Montage :

- new assembly of material to create new meanings
- artistic approach
- the viewer “feels” the effect

# Combining Images and Sound through Editing

**Example: Amateur**

**Lasse Gjertsen**

**Example : Star Guitar**

**Michel Gondry**



- material was produced and edited to match the audio
- layout of the compete “sound scape”
- objects (oranges) were used to represent “events”

## Editing Rules:

Cut on the beat to match the audio.

Be ruthless about the cut's: judge shots critical to filter out the unimportant material

Rule of thumb : one minute action can be described in max 10 sec

**From the Task Analysis**  
**to Video Shoot:**

**Making Tea!**

**Goal**

**Make cup of tea**

**Sub-Goals**

**Heat water**

**Infuse tea**

**Add milk/sugar/lemon**

**Unit Tasks**

**Fill  
kettle**

**Boil  
kettle**

**Place tea  
bag in cup**

**Add hot  
water**

**Add  
milk**

**Add  
sugar**

**Add  
lemon**

**Artifacts**

**water, kettle**

**tea bag, cup, hot water**

**milk, sugar,  
lemon, spoon**

# Free Music:

<http://www.jamendo.com/en/>

or

Album “Royalty Free” on iTunes

# Next Steps Today & Friday

- individual group-work : shot and edit
- materials you need : laptop & camera (video & photo)
- feedback and reviews on demand

# Next Steps Monday

- Morning: Prepare Presentation
- Afternoon: Deadline 13:30 s.t.
- Formal Individual Feedback
- clean up rooms & bring back materials!

**Final Submission (UniWorX): Tuesday 9:00 s.t.**

# Final Presentation

- 10 Minutes + 5 Q&A
- Elevator Pitch (Abstract)
- User + Problems
- Concept Video (self explanatory)
- Next Steps & Expansions

# Blogpost

- 4 Points
- What is it ? 3-4 Sentences
- + Video
- How does it work ?
- Values and Potential
- Next Steps & Future Work

**Deadline: 19/03/2013 17:00 s.t.**

(Categories: Team x, WS 12/13, Videoprototype)

# Video-format and Duration

The video you submit should have the following format:

- MPEG-4, max 3min.
- be sure that the video is self-explanatory
- explain necessary background information in the beginning of the video
- consider that font sizes should be big enough and readable when your video is being presented
- upload your video to youtube or vimeo

# References

What do Prototypes Prototype? Stephanie Houde and Charles Hill, Apple Computer, Inc. Cupertino, CA, USA

Erickson, T. (1995). Notes on Design Practice: Stories and Prototypes as Catalysts for Communication. "Envisioning Technology: The Scenario as a Framework for the System Development Life Cycle" (ed. Carroll, J.). Addison-Wesley.

Marion Buchenau and Jane Fulton Suri. Experience Prototype, in the Proceedings of ACM DIS '00, pp. 424–433, 2000.

Michael McCurdy, Christopher Connors, Guy Pyrzak, Bob Kanefsky and Alonso Vera.  
Breaking the Fidelity Barrier: An Examination of our Current Characterization of Prototypes and an Example of a Mixed-Fidelity Success, in the Proceedings of ACM CHI 2006, pp. 1233–1242, April 22–27, 2006.

Jonas Löwgren, Animated use sketches as design representations, interactions, v.11 n.6, November + December 2004

Raghu Kolli, Using video scenarios to present consumer product interfaces, INTERACT '93 and CHI '93 conference companion on Human factors in computing systems, p.61-62, April 24-29, 1993, Amsterdam, The Netherlands

Chris Crawford on Interactive Storytelling (New Riders Games) by Chris Crawford (Oct 16, 2004) , ISBN-10: 0321278909