

# VIDEOPROTOTYPING

Representing complex relationships, new behaviours 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.

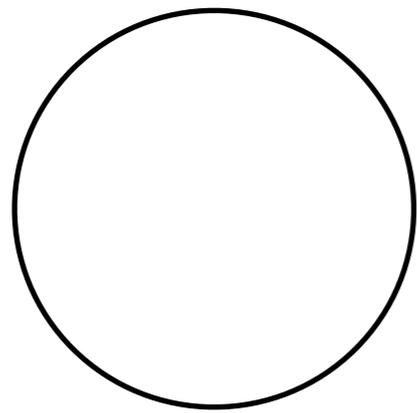
**For the Designer:**

Exploration  
Visualization  
Feasibly  
Inspiration  
Collaboration

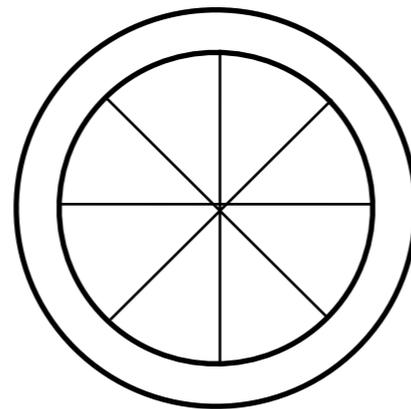
**For the End User:**

Effectiveness / Usefulness  
A change of viewpoint  
Usability  
Desirability

# Fidelity v. Resolution



low resolution  
low fidelity



low resolution  
high fidelity



high resolution  
high fidelity

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



# Video-prototyping

Image Source: CIID

# Storyboard and Keyframes

**Example: „Ensemble Computing“**

**Client : INTEL**

**Deliverable : 4 High Fidelity Video Scenarios**

**First Step: Storyboard generation**



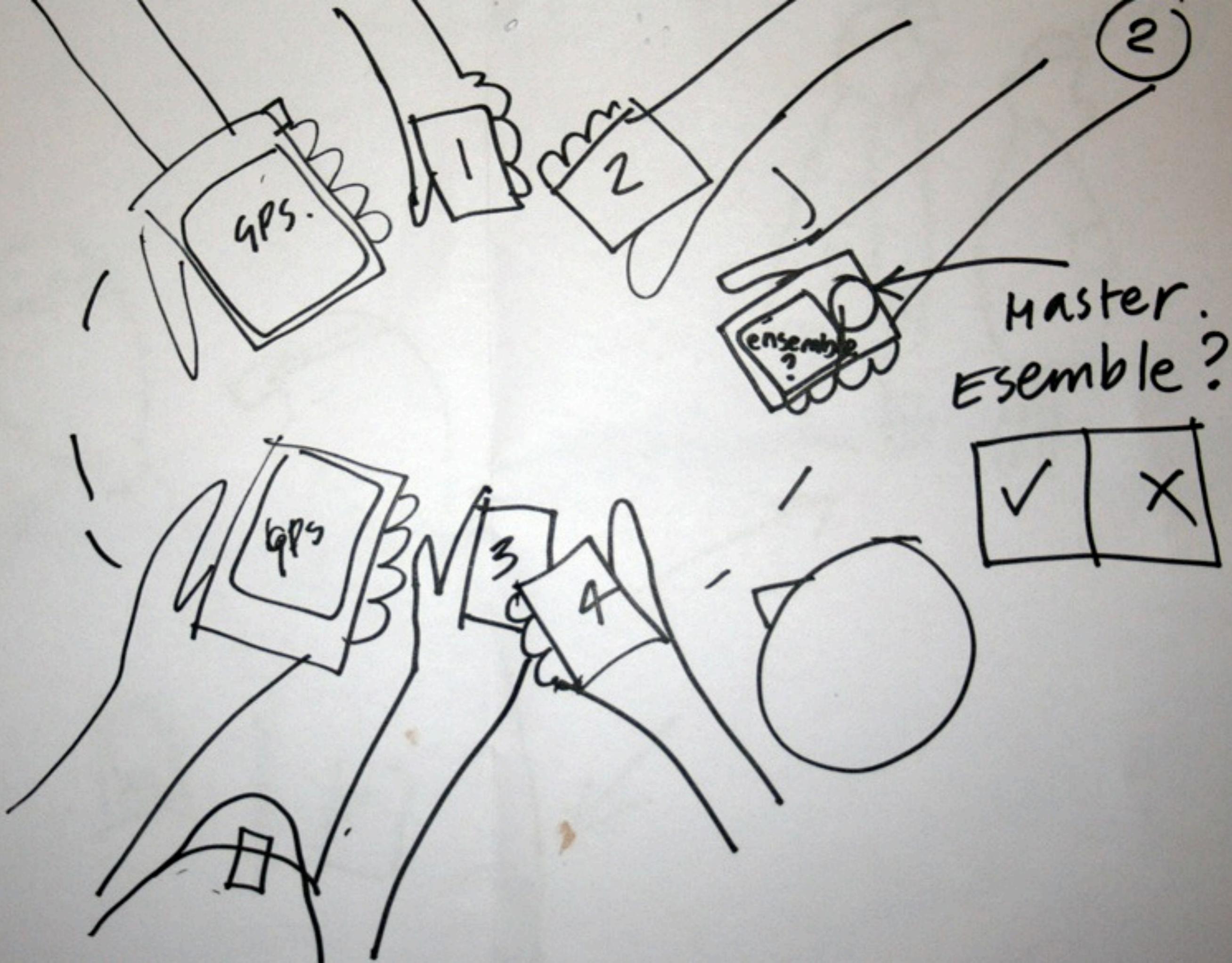
A man with curly hair and a beard, wearing a green vest over a dark long-sleeved shirt and dark pants, stands on the left side of the frame, looking towards the center.

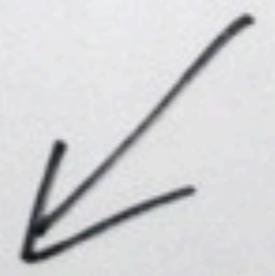
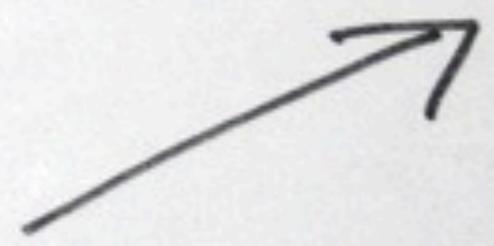
A man with a shaved head and a goatee, wearing a dark t-shirt and dark pants, stands in the center of the room, gesturing with his hands as if explaining something on the wall.

A man with dark hair and glasses, wearing a dark sweater and dark pants, is seated on the right side of the frame, leaning forward and looking towards the other two men.



A single, glowing pendant light fixture hangs from the ceiling, providing the primary illumination for the room.



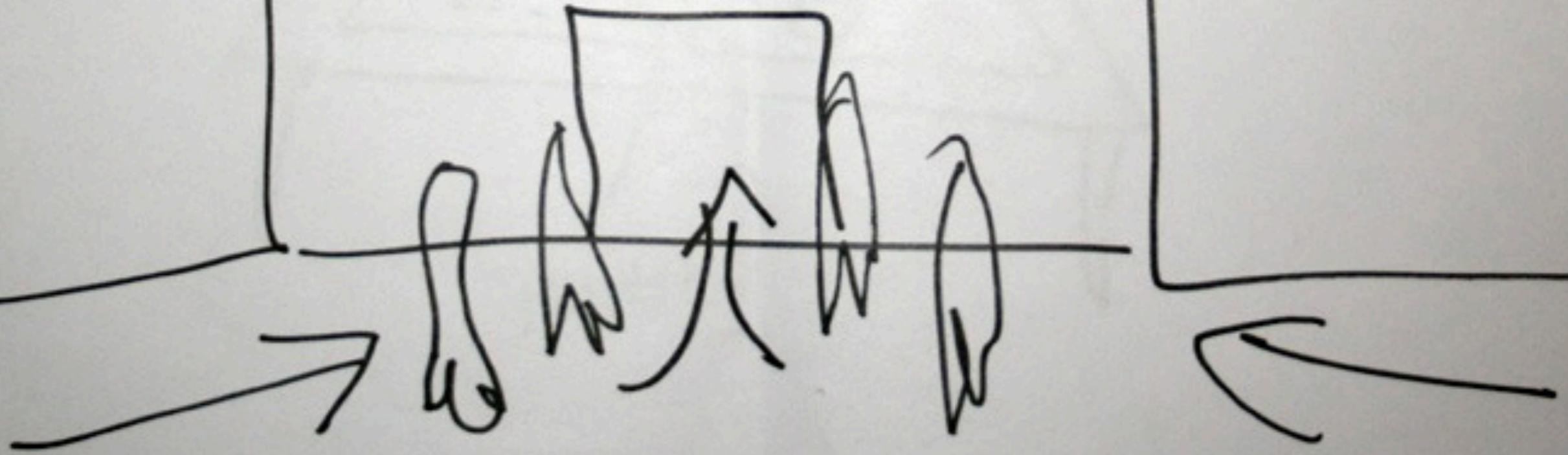
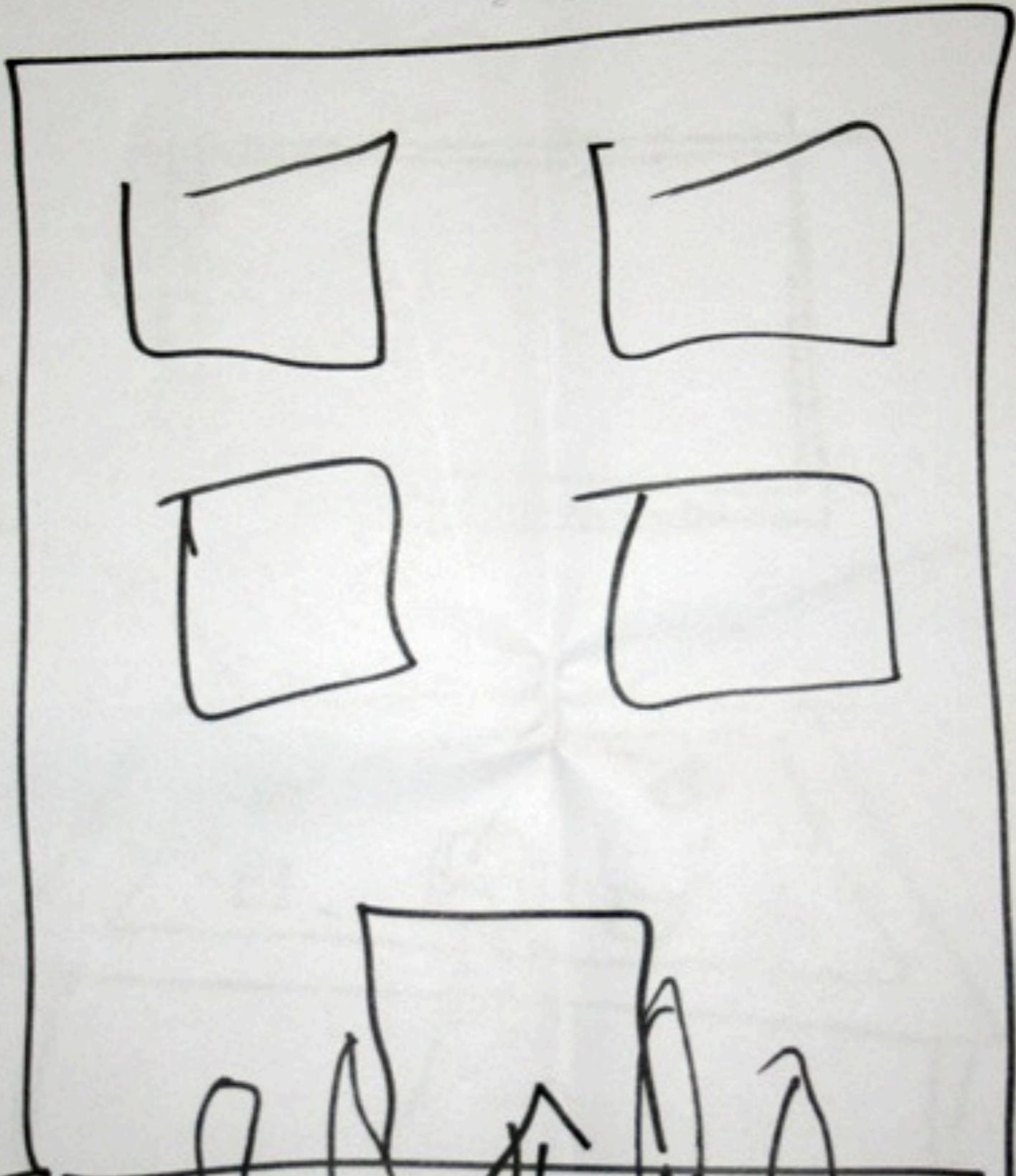


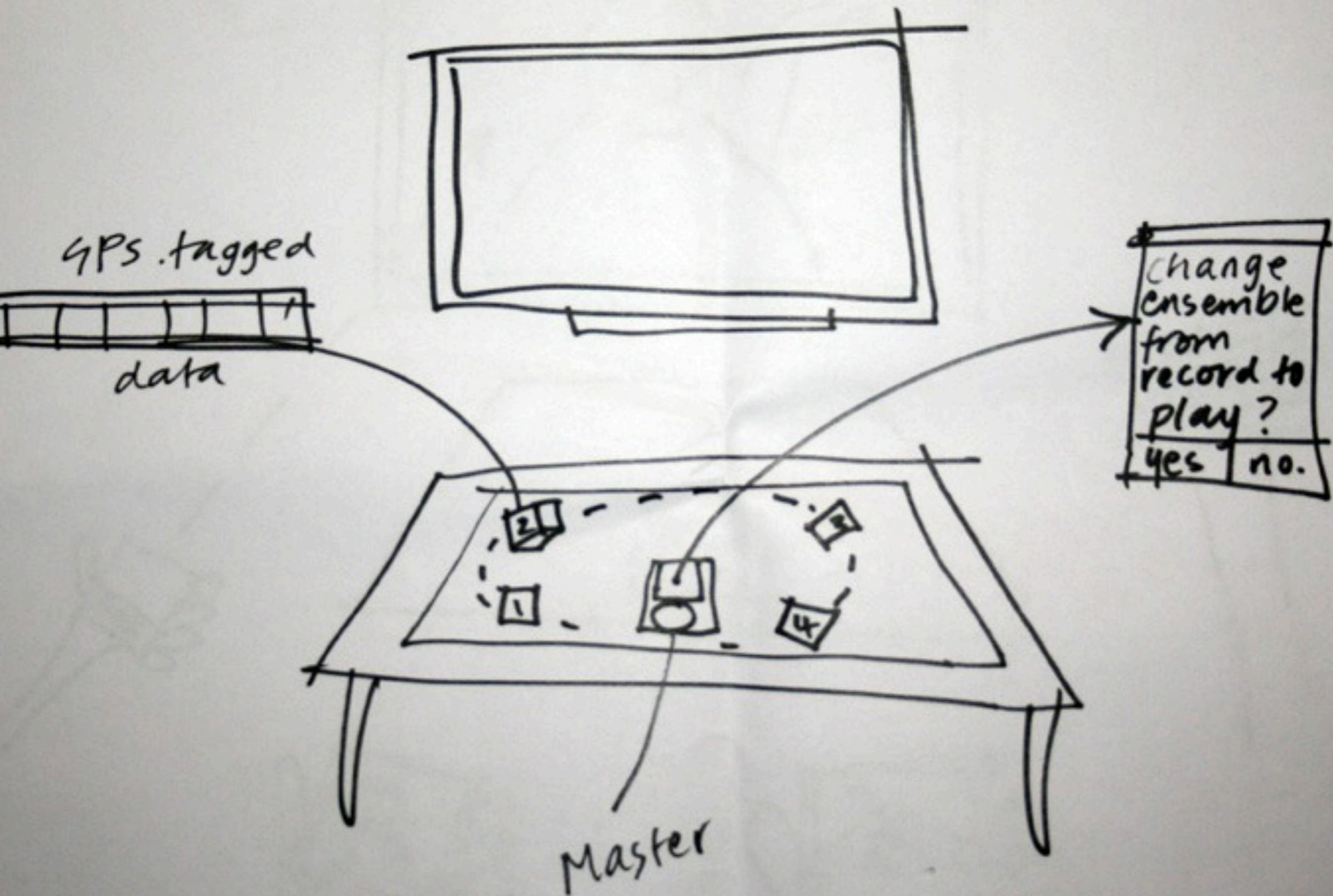
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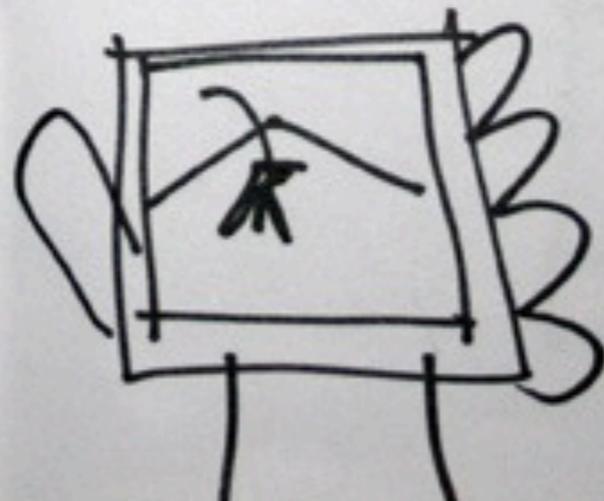
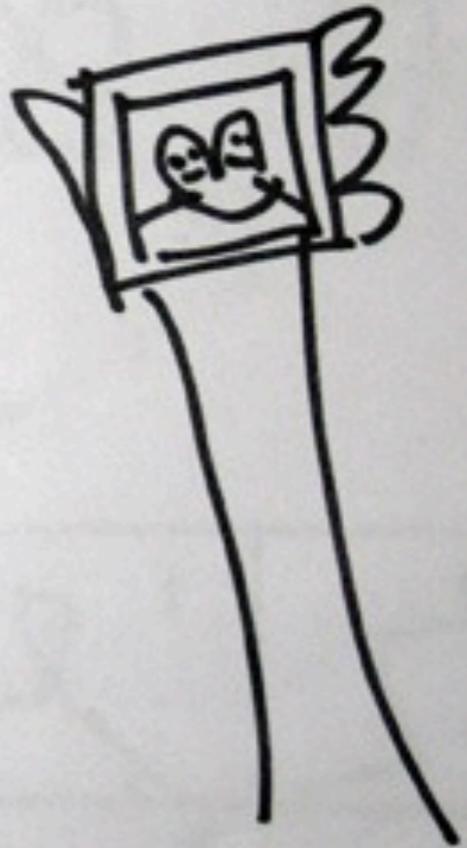
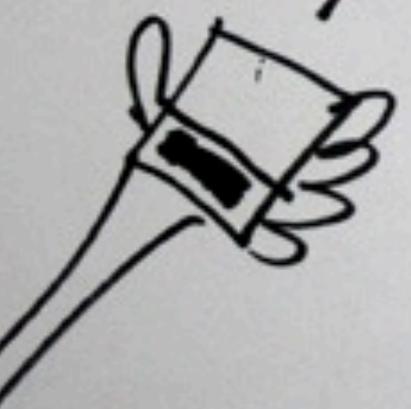
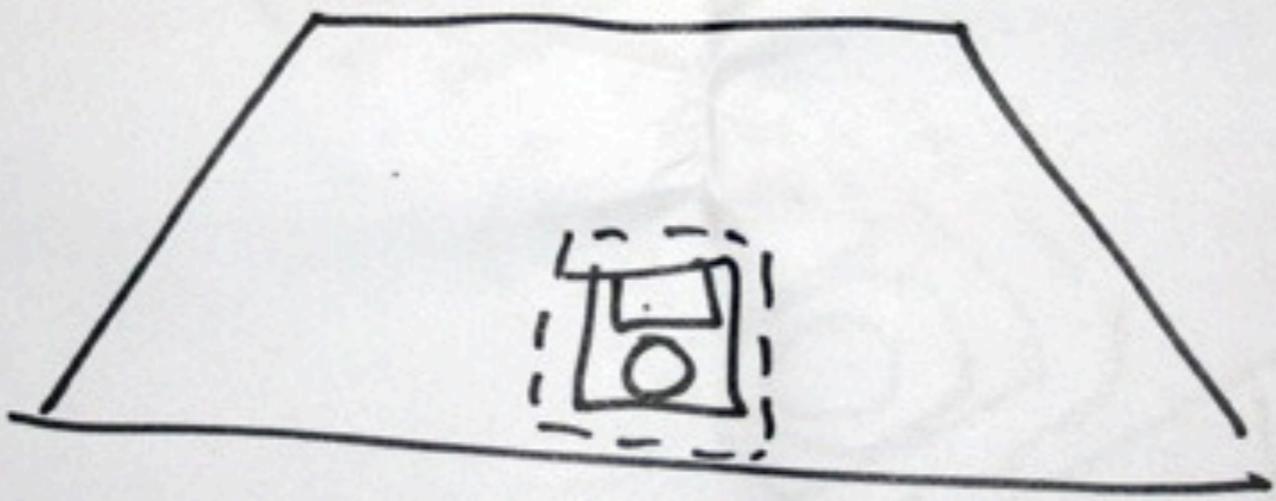
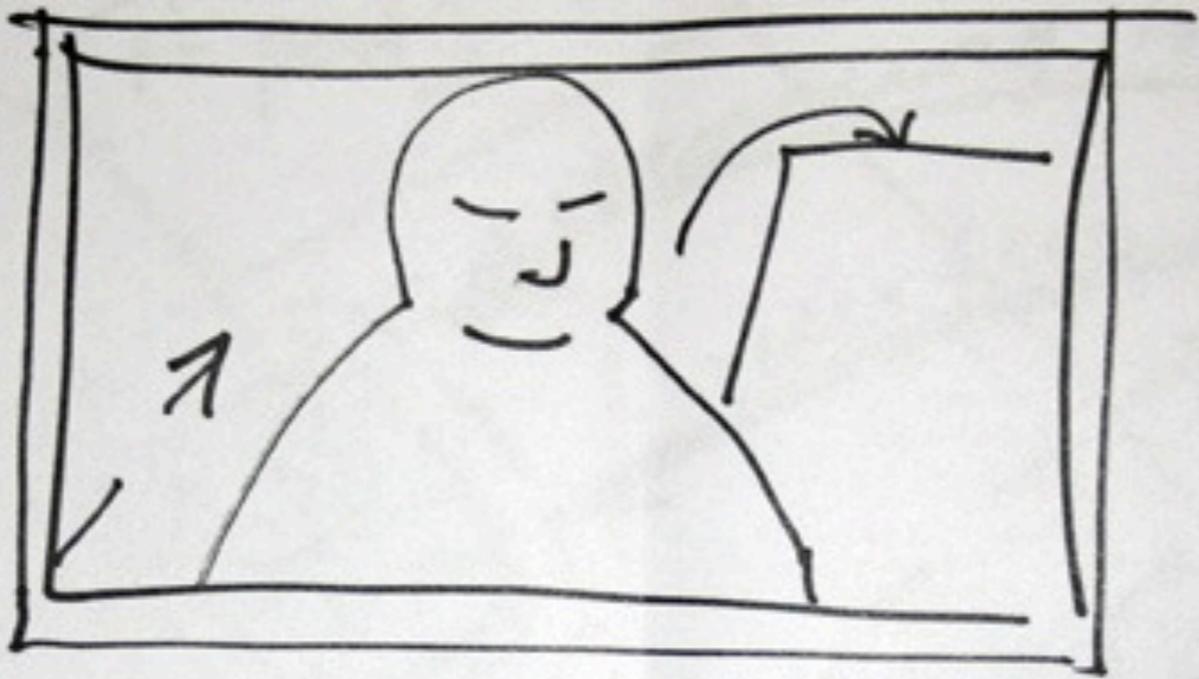
video or

parcour

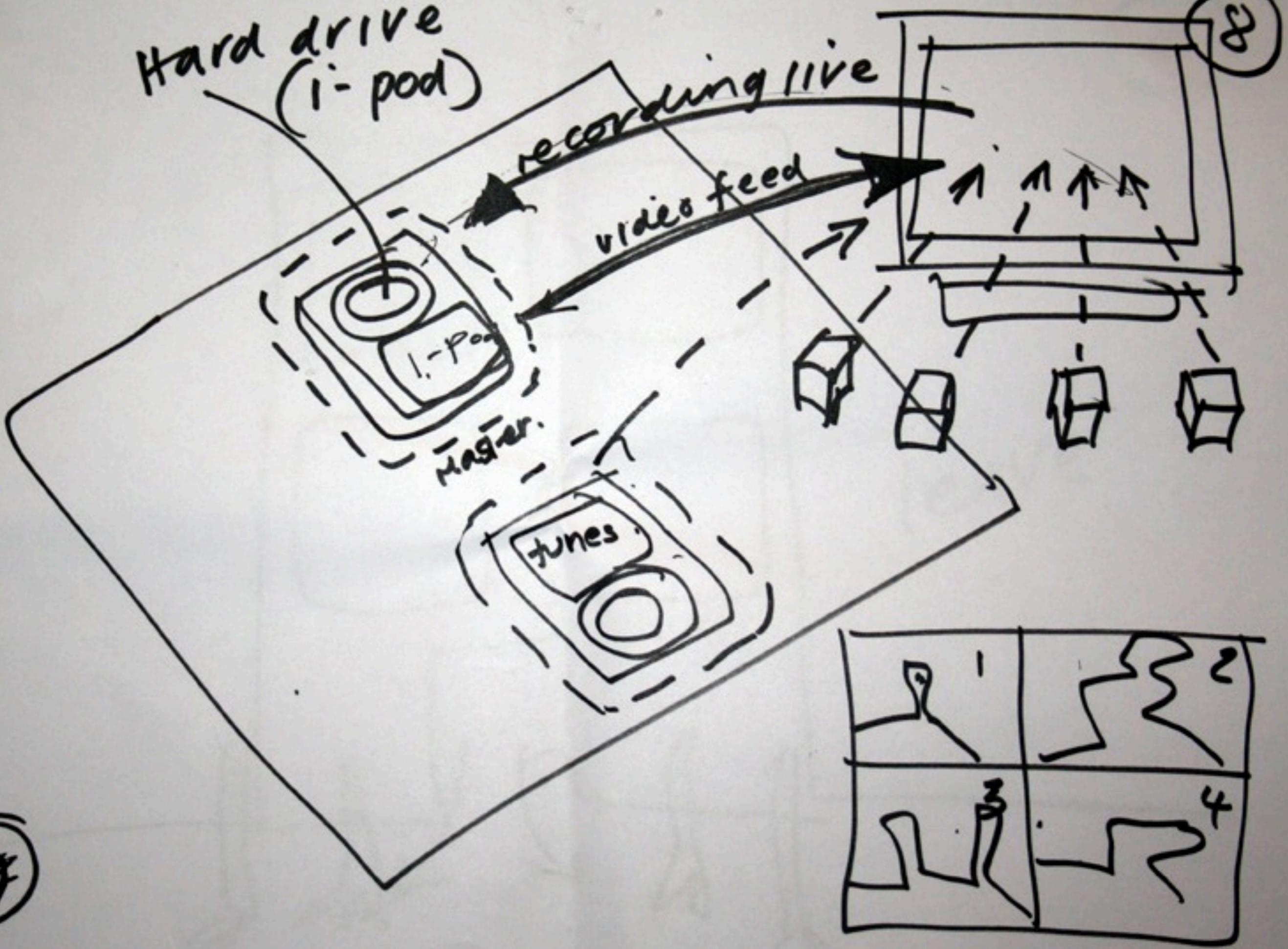
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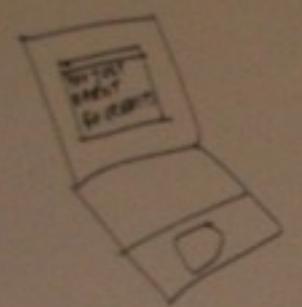
Hard drive  
(i-pod)



~~8~~

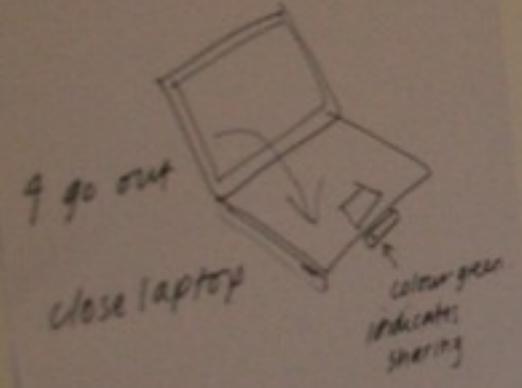
**Second Step: Scenario presentation**

ALIC

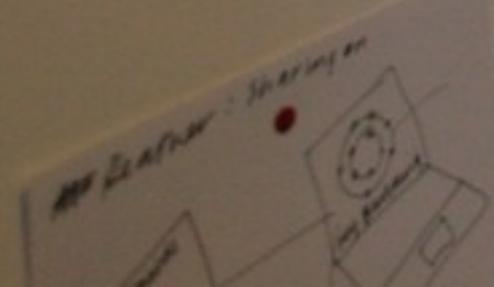
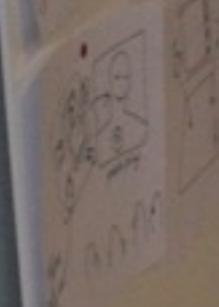
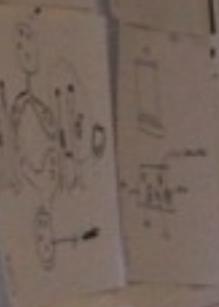
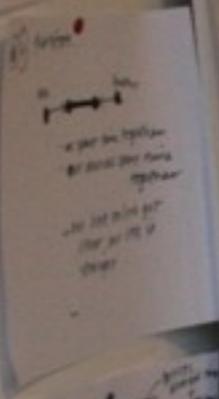
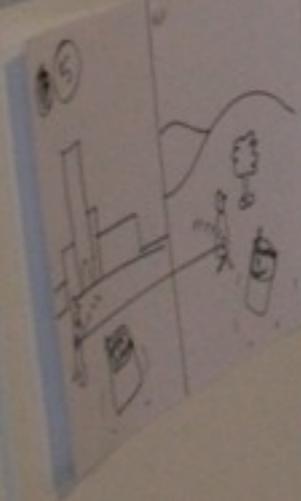
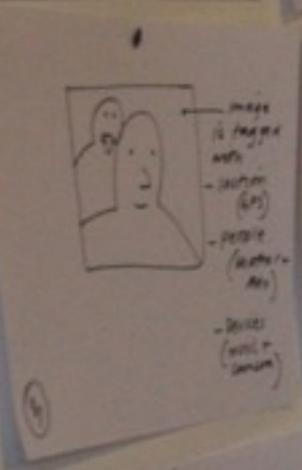
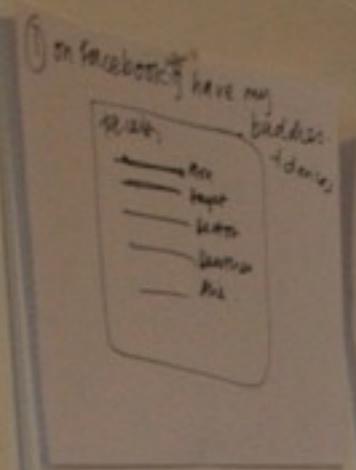


3

feature



4



5



3.3.09



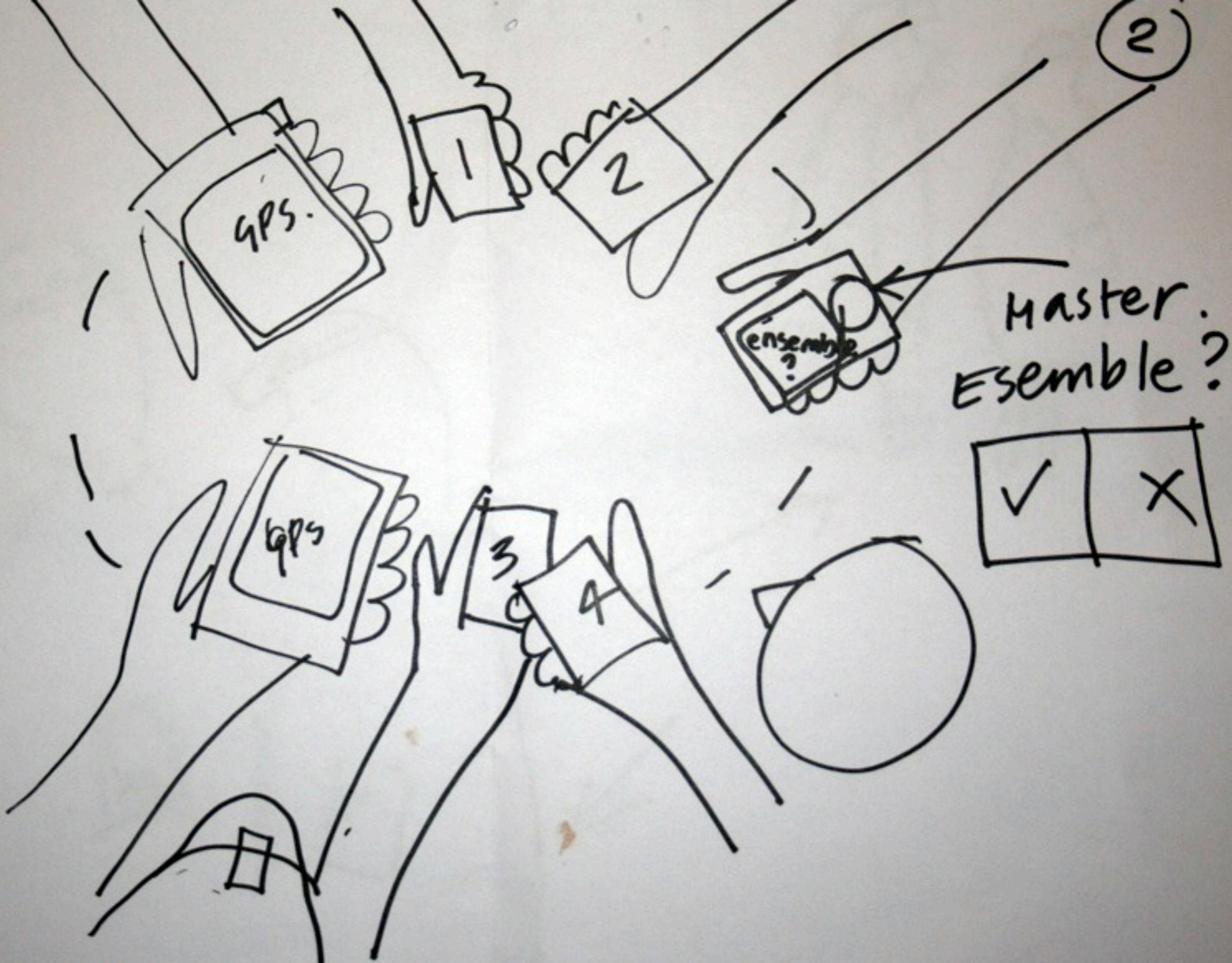


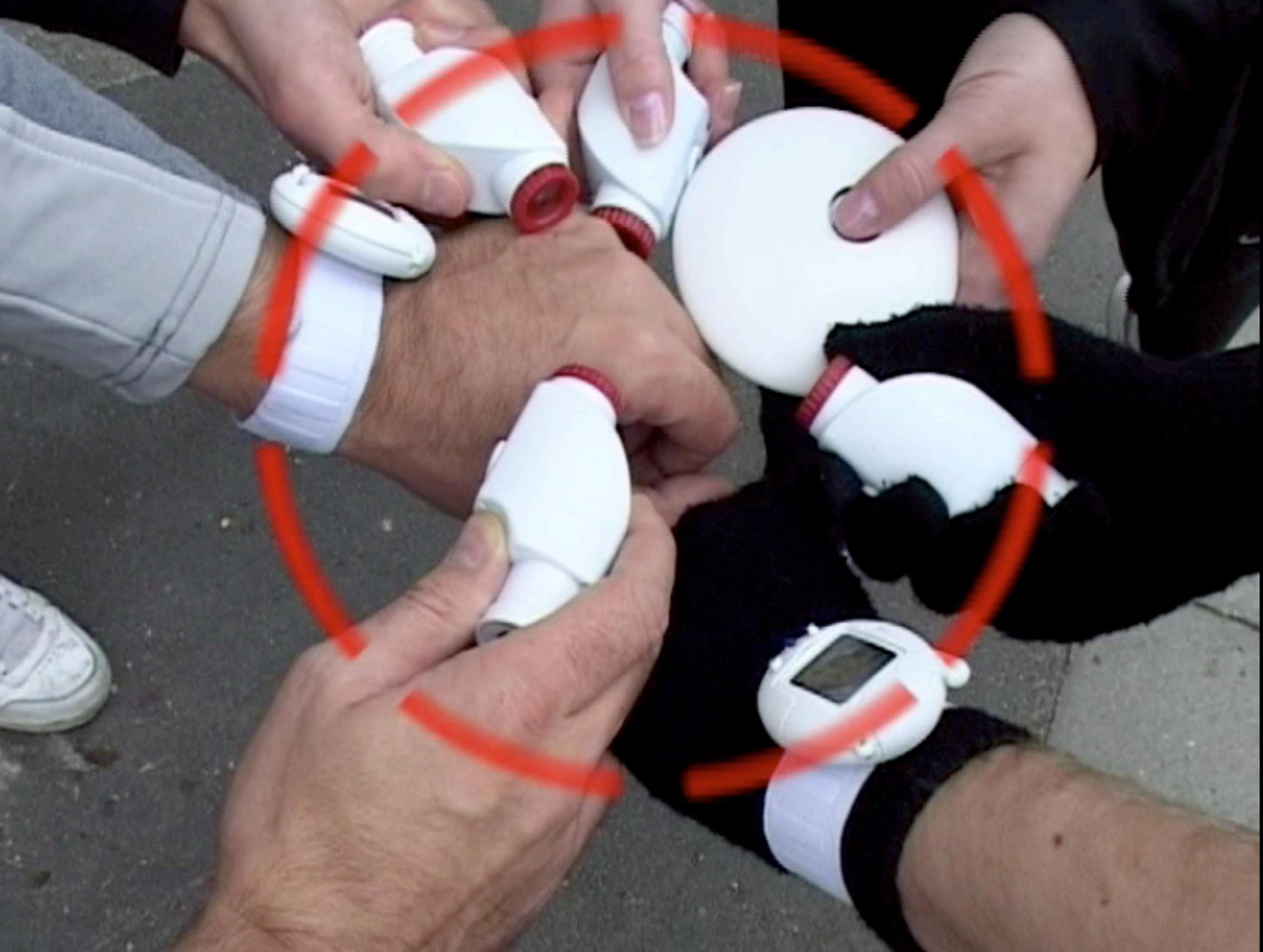
# Third Step: Shooting the Keyframes

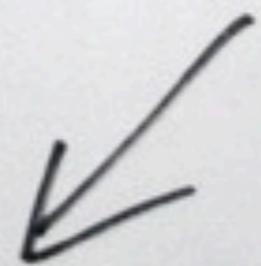






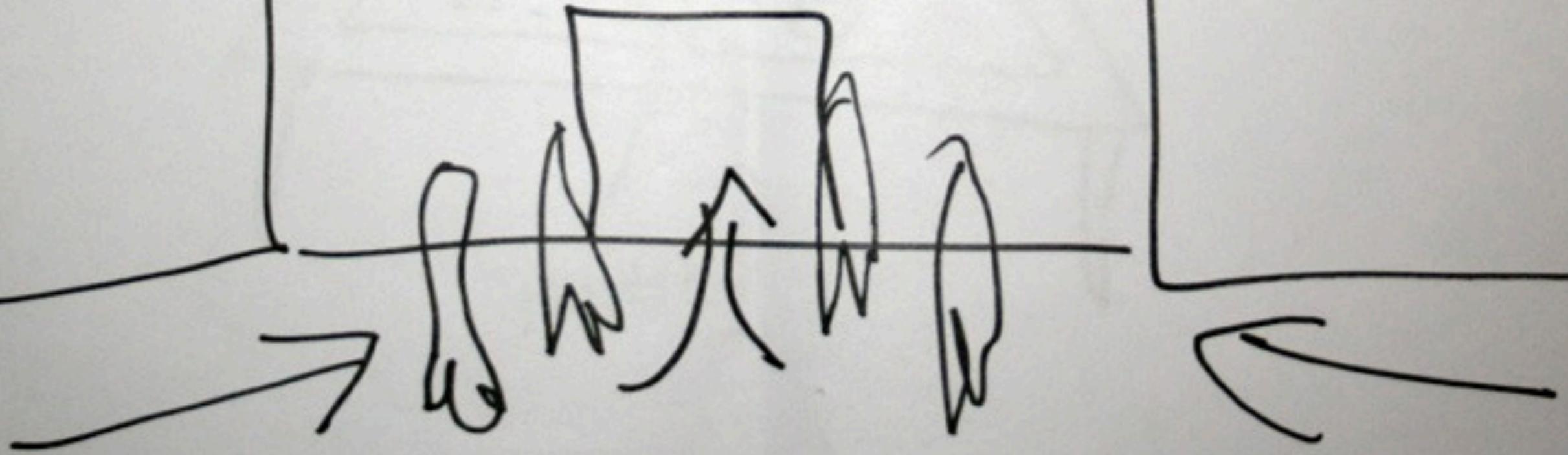
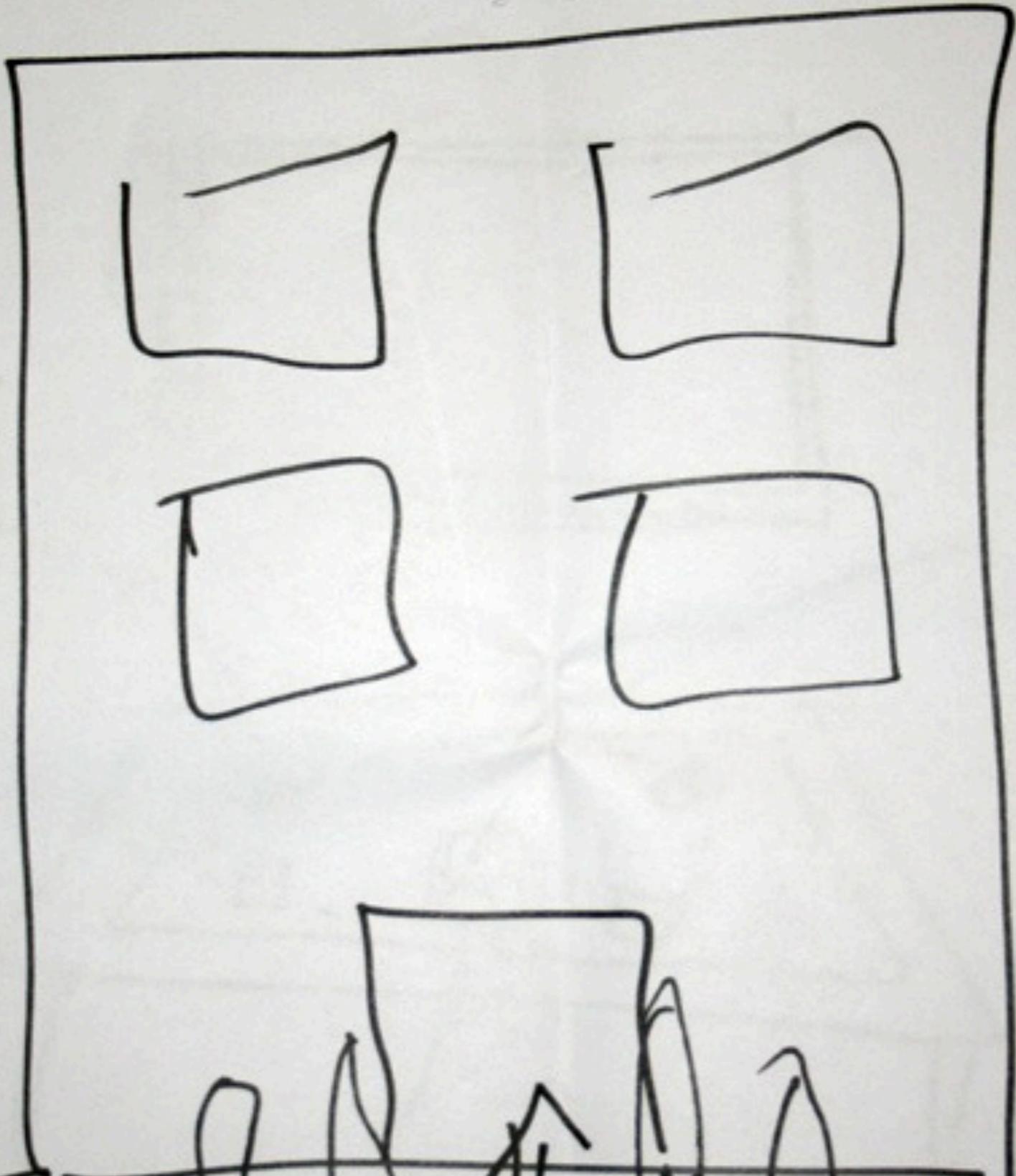




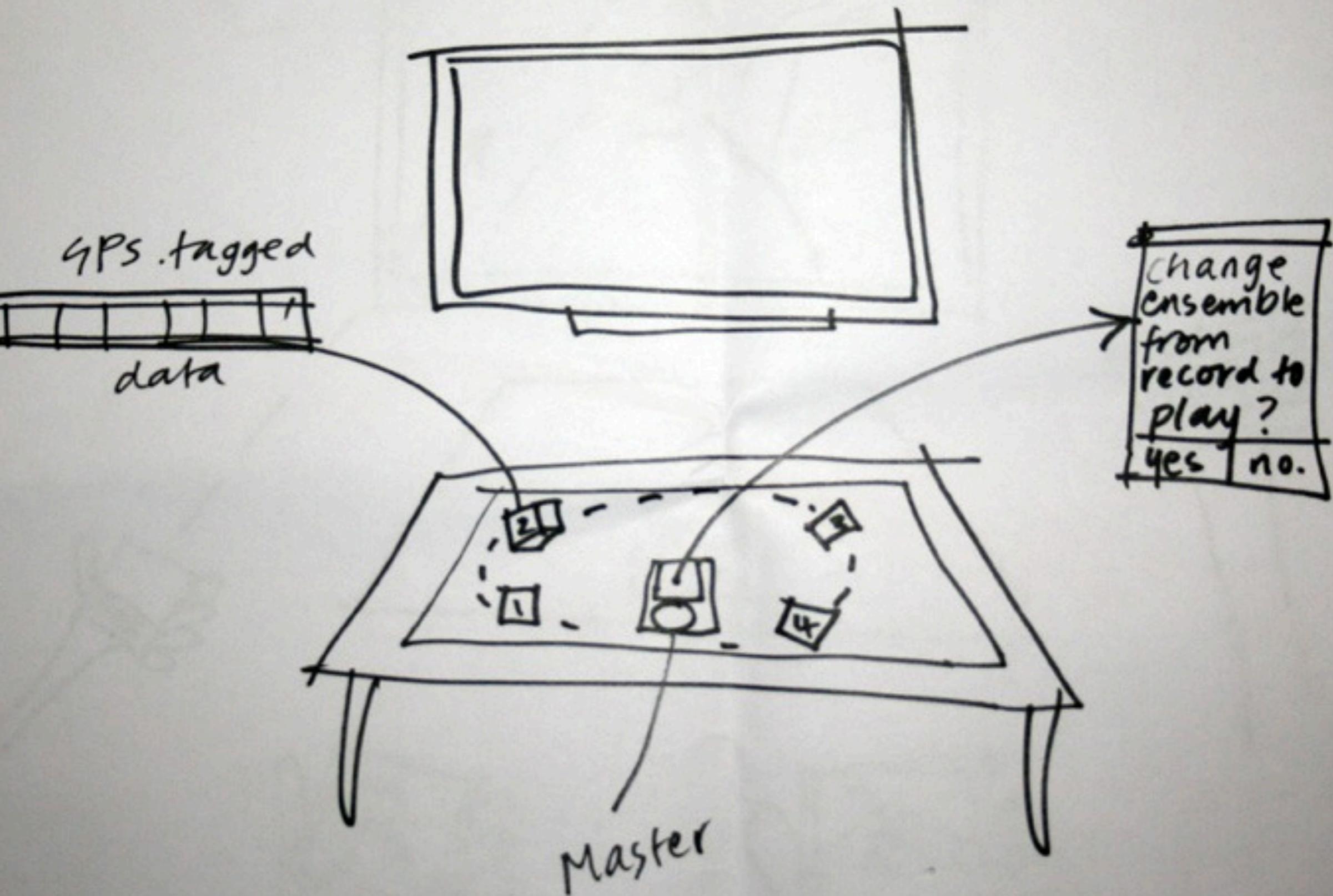


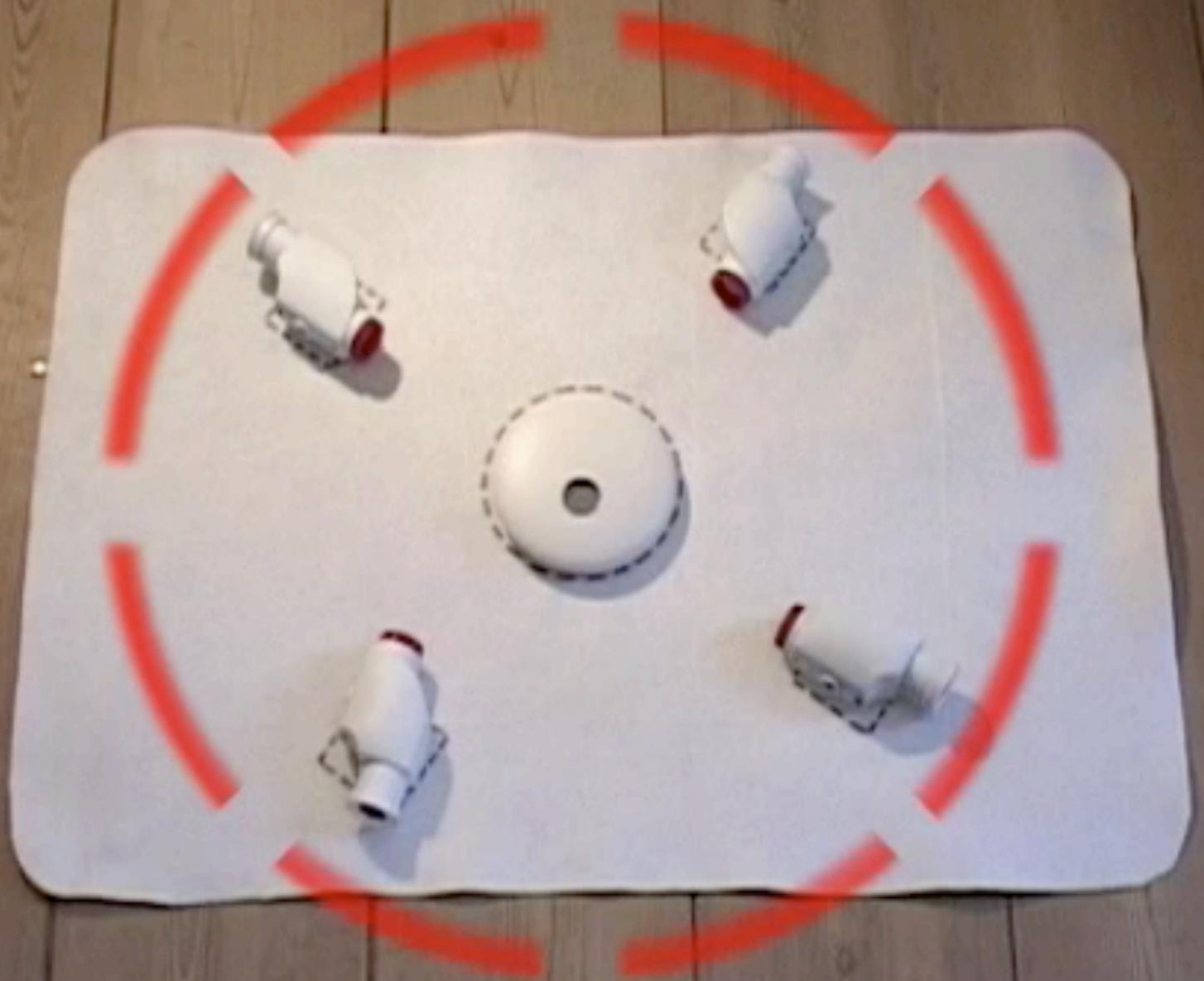


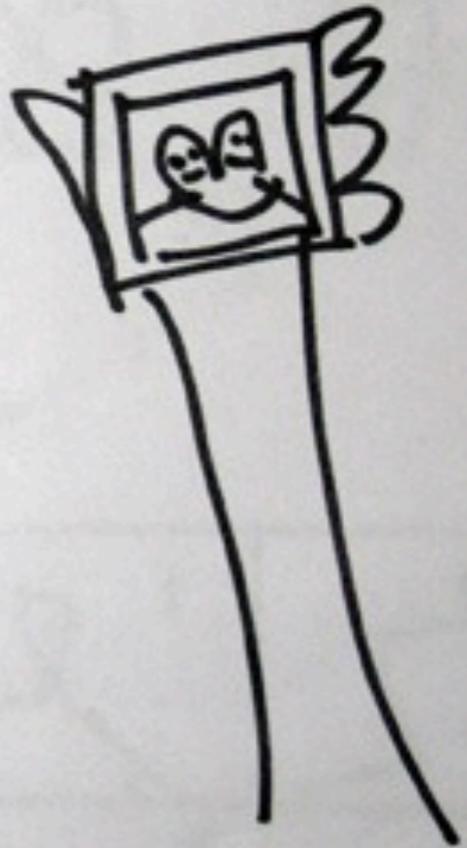
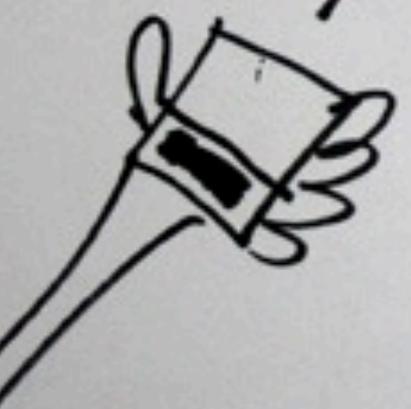
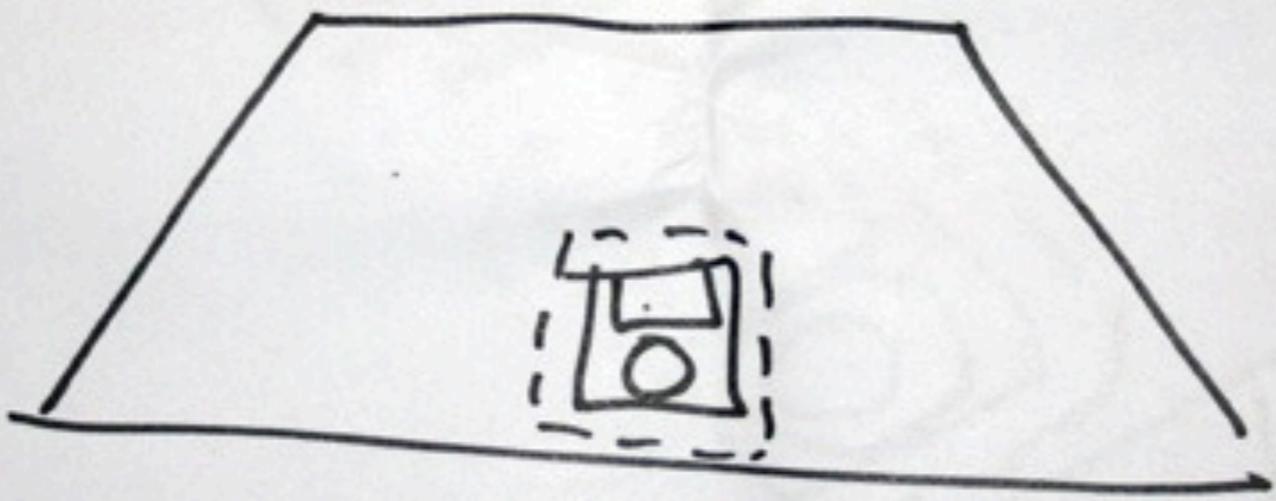
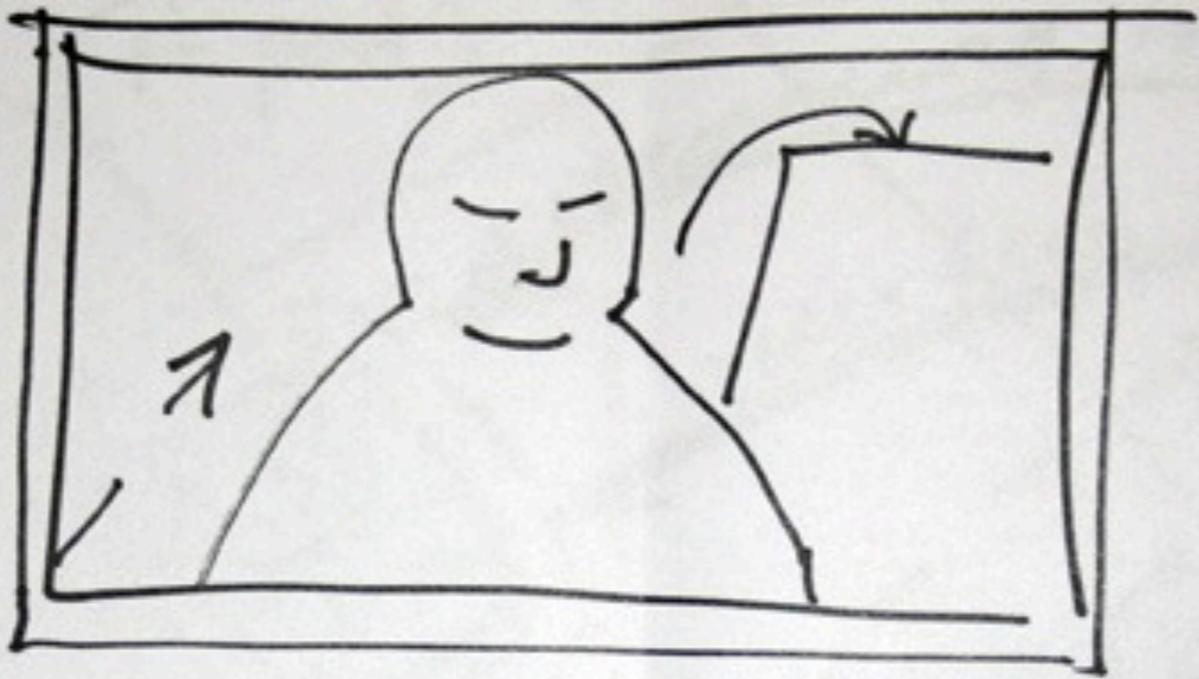
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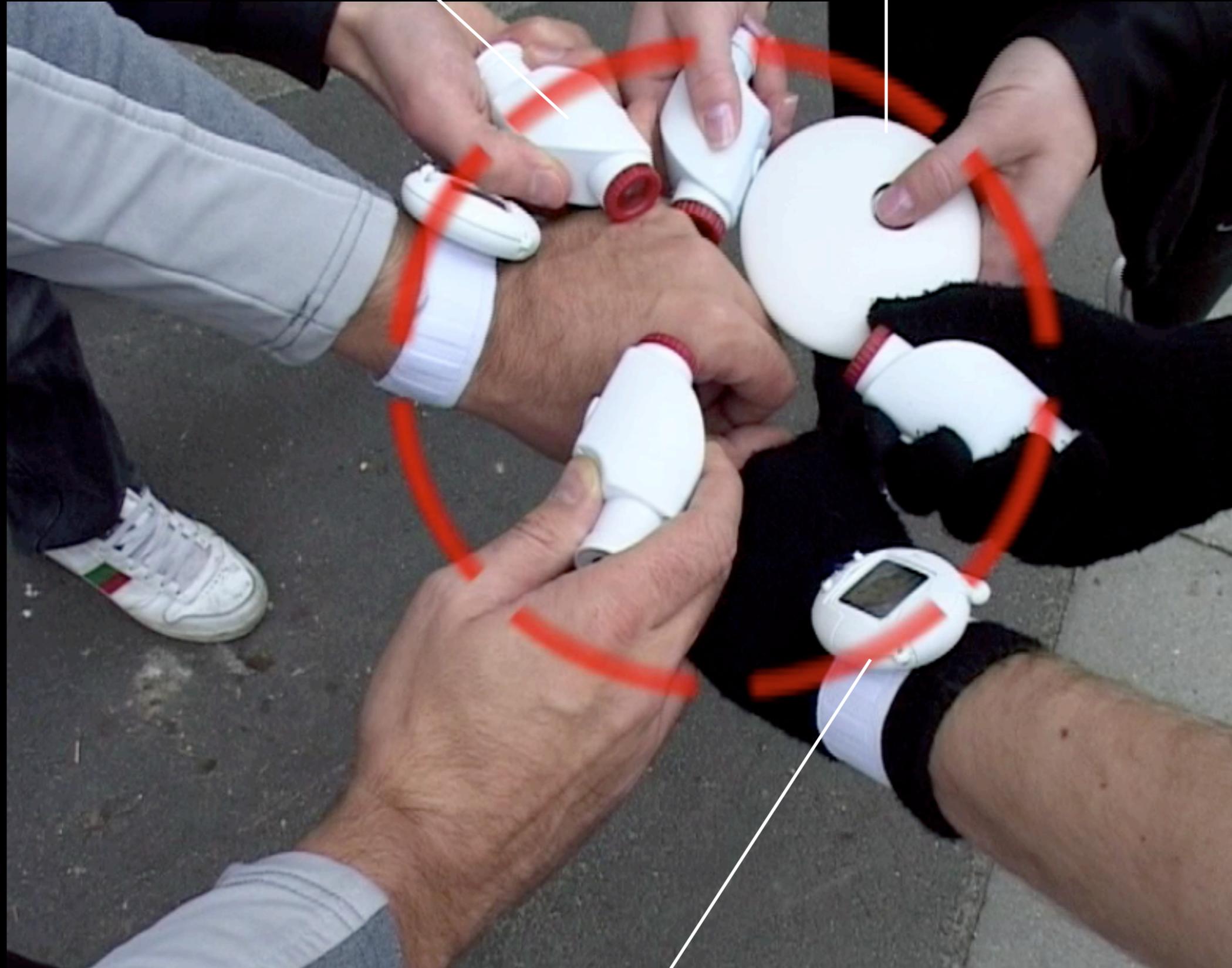
# Fourth Step: Editing



# Fifth Step: Presentation

WiFi video camera

Wireless hard drive



Bluetooth GPS system

# Video Prototype



**Dealership**

**Work place**

**Home**

**Call centre**

## Acting out the Scenario

You can mockup experiences over time also by emulating various processes and touch points by setting a stage and enacting the roles and actions.

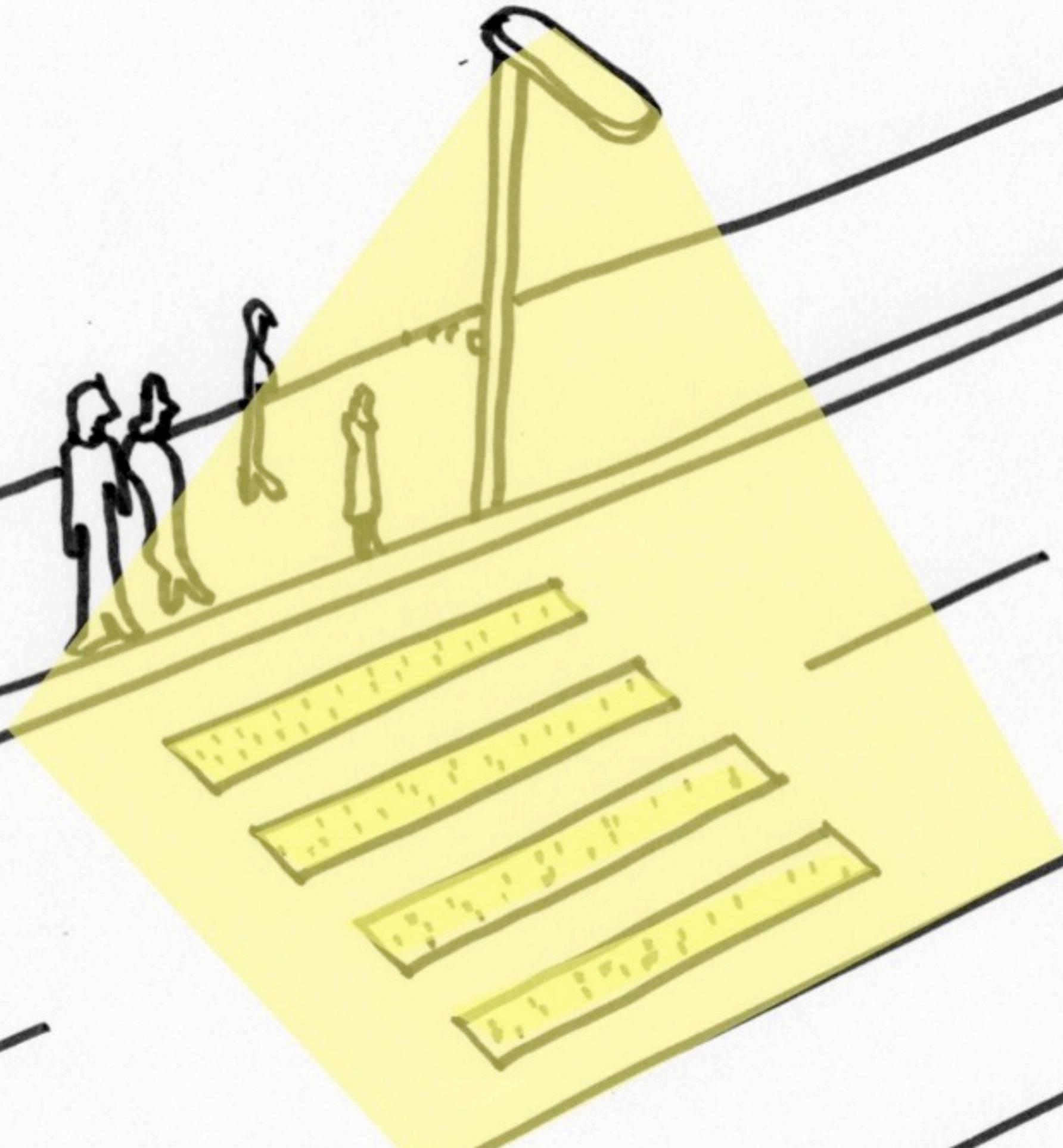


## Quick Kiosk Mock-up

You can mockup real size products and environments which capture a degree of realism and while keeping it open for interpretation or further development.

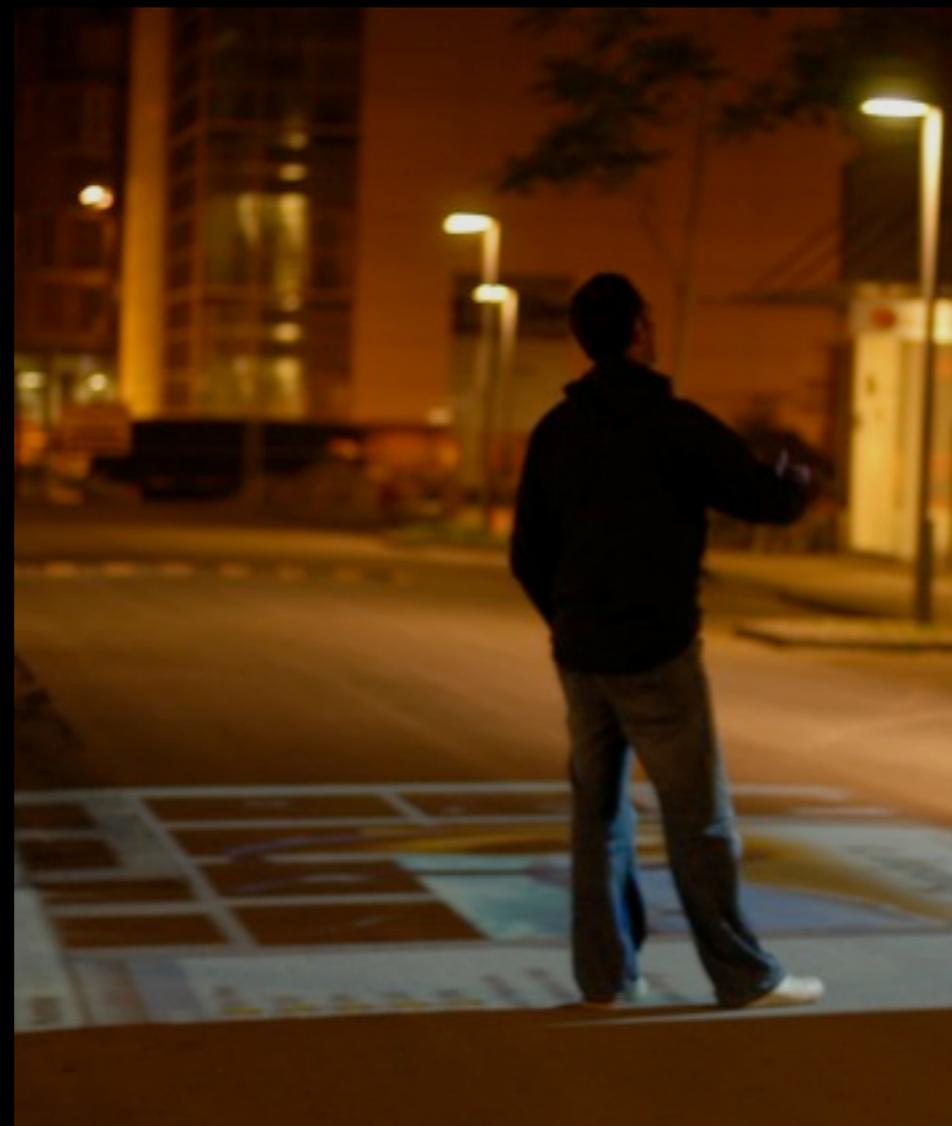
# EXAMPLE: Video Prototypes

**low resolution  
high fidelity  
(crossing on demand)**



# Zebra Zone

# 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.



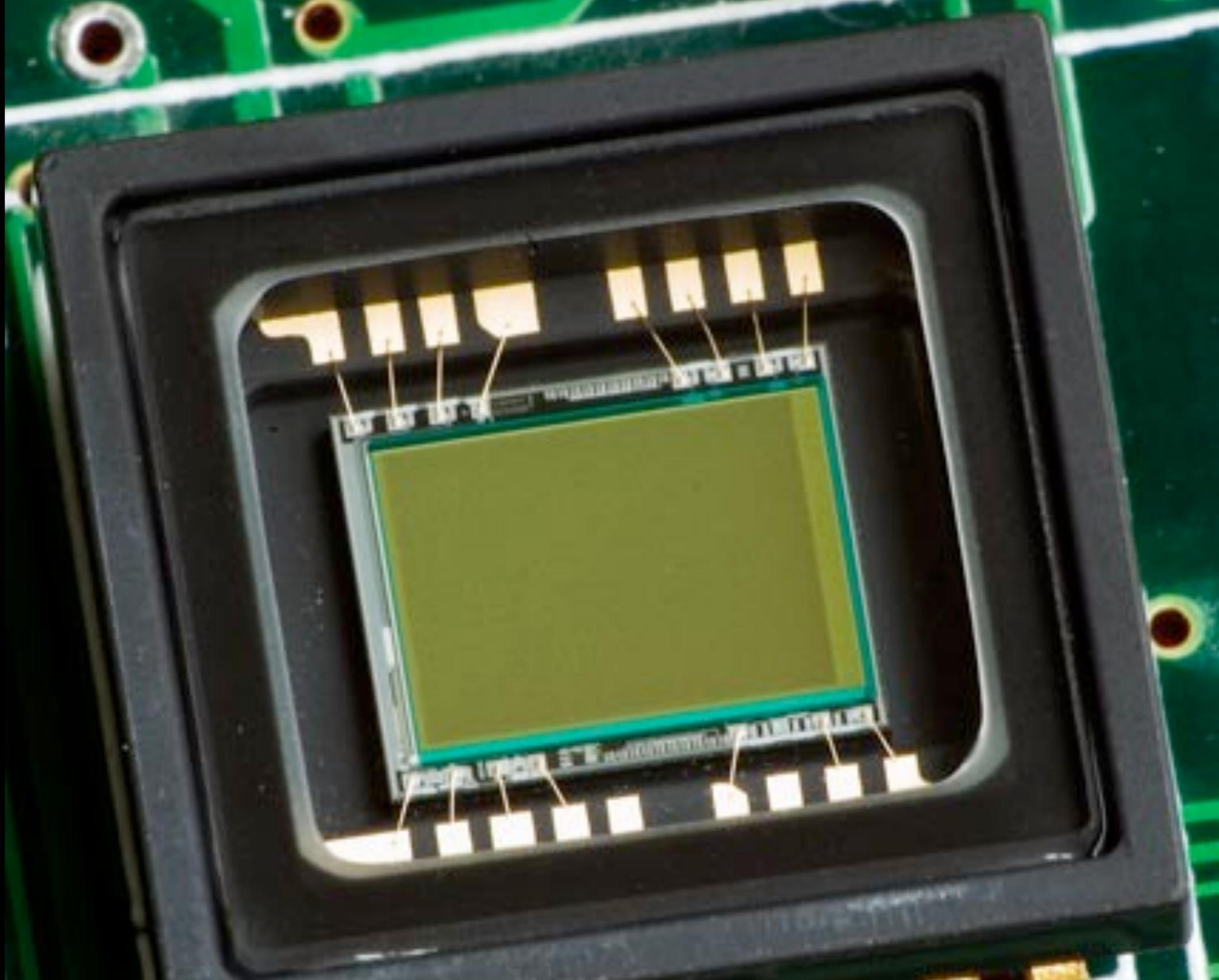
# Choosing the right camera

There are three different camera types and it's important to know what each has to offer.

A "one chip" camera which sends all of the colour data through one CCD (charged coupled device).

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



The choice between Apple's iMovie and PC's Movie Maker can be a tough decision. iMovie is a much more powerful program than Movie Maker, but if you decide on iMovie you are forced to buy an Apple computer. Whereas Movie Maker isn't limited to one computer which for most people is much better because they are used to the format of the PC. Overall iMovie is a much better beginner editing suite as it has way more effects than Movie Maker.

**Movie Tasks**

**1. Capture Video**

- Capture from video device
- Import video
- Import pictures
- Import audio or music

**2. Edit Movie**

- Show collections
- View video effects
- View video transitions
- Make titles or credits
- Make an AutoMovie

**3. Finish Movie**

- Save to my computer
- Save to CD
- Send in e-mail
- Send to the Web
- Send to DV camera

**Movie Making Tips**

**Collection: Frosty the Snowman (edit)**  
Drag a clip and drop it on the storyboard below.

Frosty the Snowman 2    Frosty the Snowman 2 001    Frosty the Snowman 2 002

Frosty the Snowman 2 003    Frosty the Snowman 2 004    Frosty the Snowman 2 005

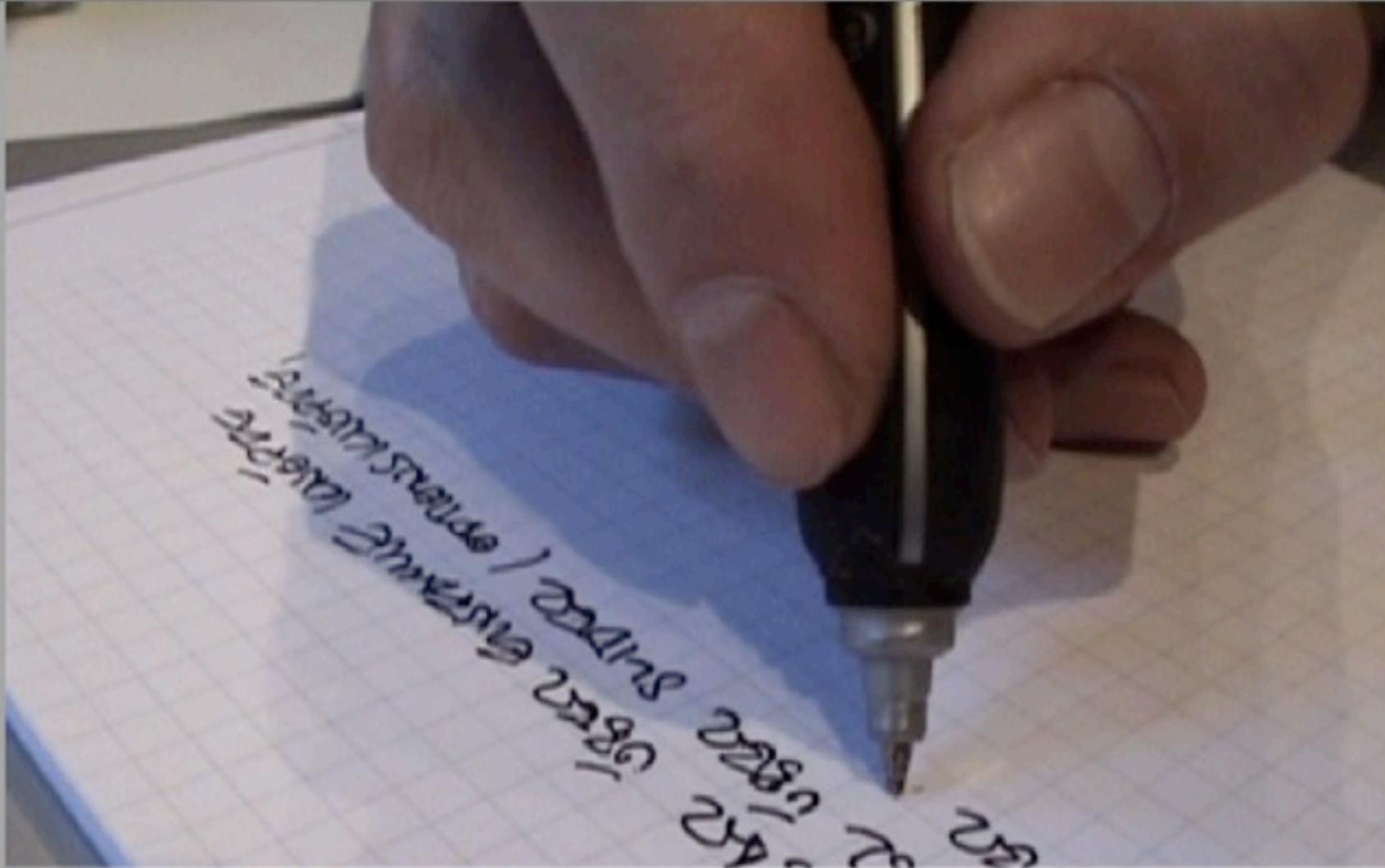
**Frosty the Snowman 2 042**

Paused    0:00:00.00 / 0:00:01.77

Play, Stop, Previous, Next, Full Screen, Help icons

Show Timeline

Frosty the Snowman 2    Frosty the Snowman 2 001    Frosty the Snowman 2 002    Frosty the Snowman 2 003    Frosty the Snowman 2 004



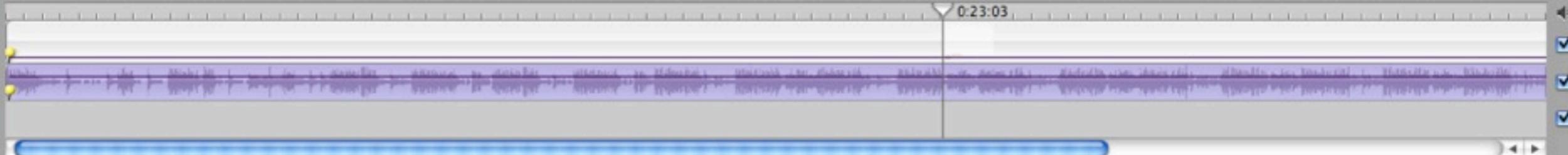
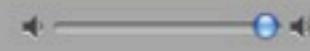
**ULTRATRONIK**

Usability Process: Analysis & Concept

0:23:03

0:51:17

2\_concept



0:23:03

Clip: 100%

"2\_concept - Audio" 0:51:17 of 0:51:17 total

169 GB available 0 KB

# 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 : Star Guitar - Michel Gondry



STAR GUITAR - CHEMICAL BROTHERS

Video Source: YouTube



- 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 the 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



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Free Music:

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

or

Album “Royalty Free” on iTunes

## References:

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