Assessing Technical Feasibility

No screens

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COMS 4170

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Goal 2

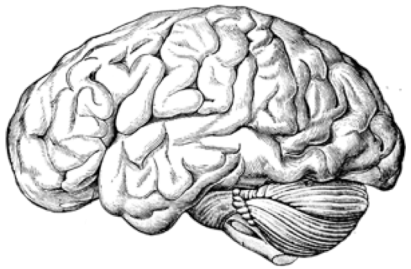
When the needs and abilities of users are unclear, design systems by **learning from iteration and experimentation**.

Keep a list of the party planning committee

Clear needs, abilities, goal

Unclear needs, abilities, goal

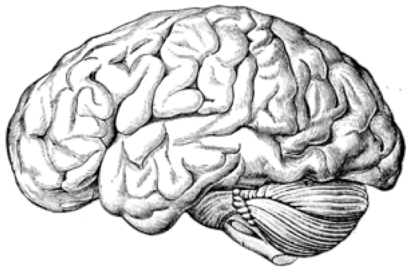
How do get from idea to product?



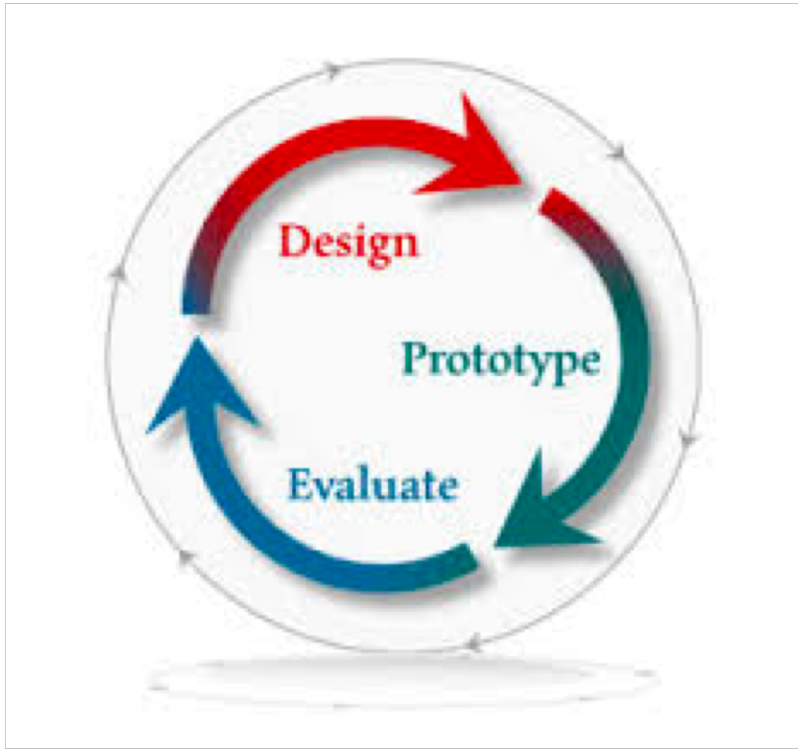
Idea

Product

Iterative Design

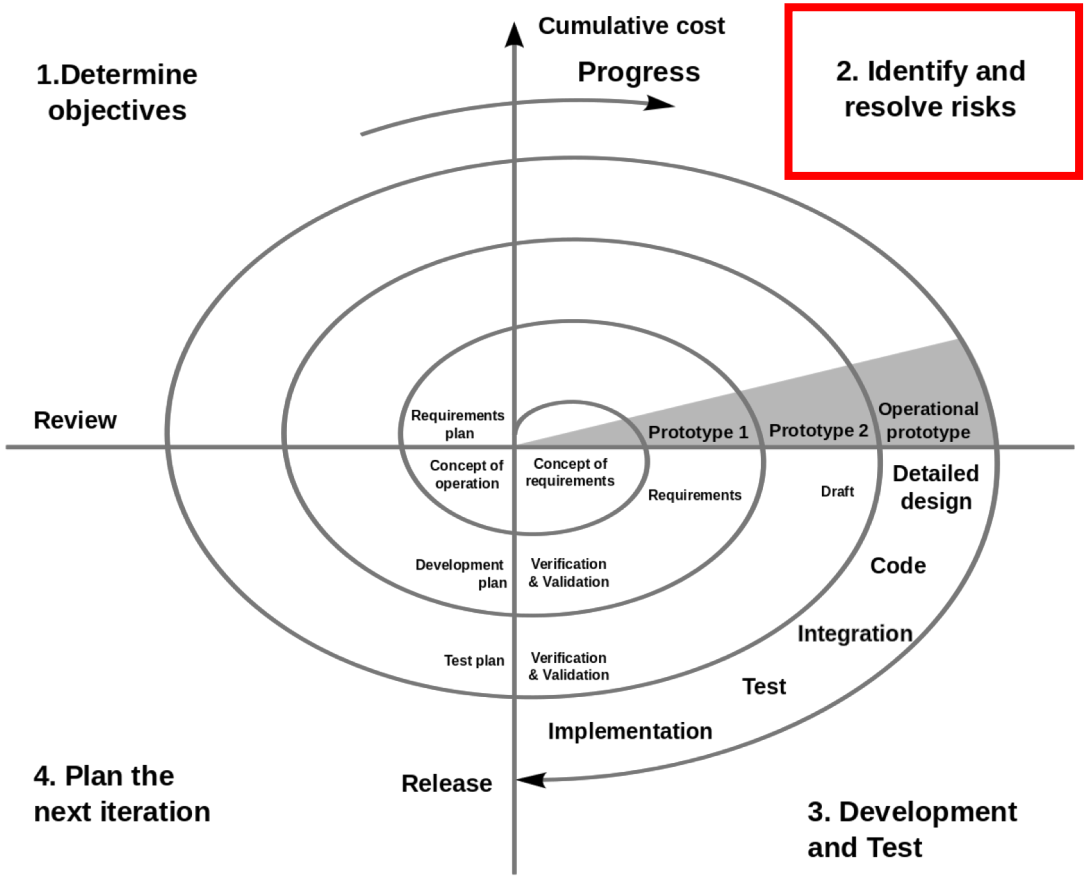


Idea

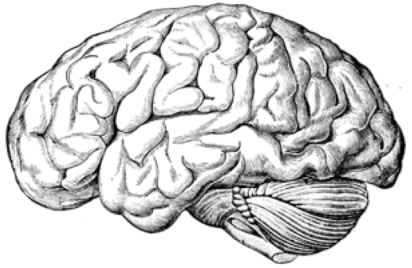


Product

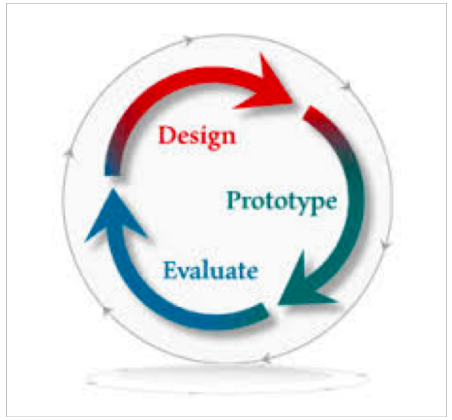
Iterative Design is good because it minimizes risk



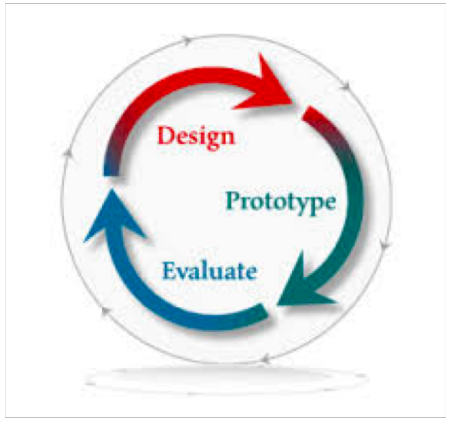
To minimize risk on novel designs, Use iteration on each risky aspect of the design



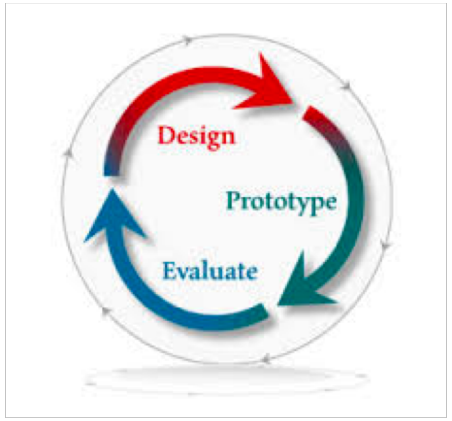
Idea



Touch screen



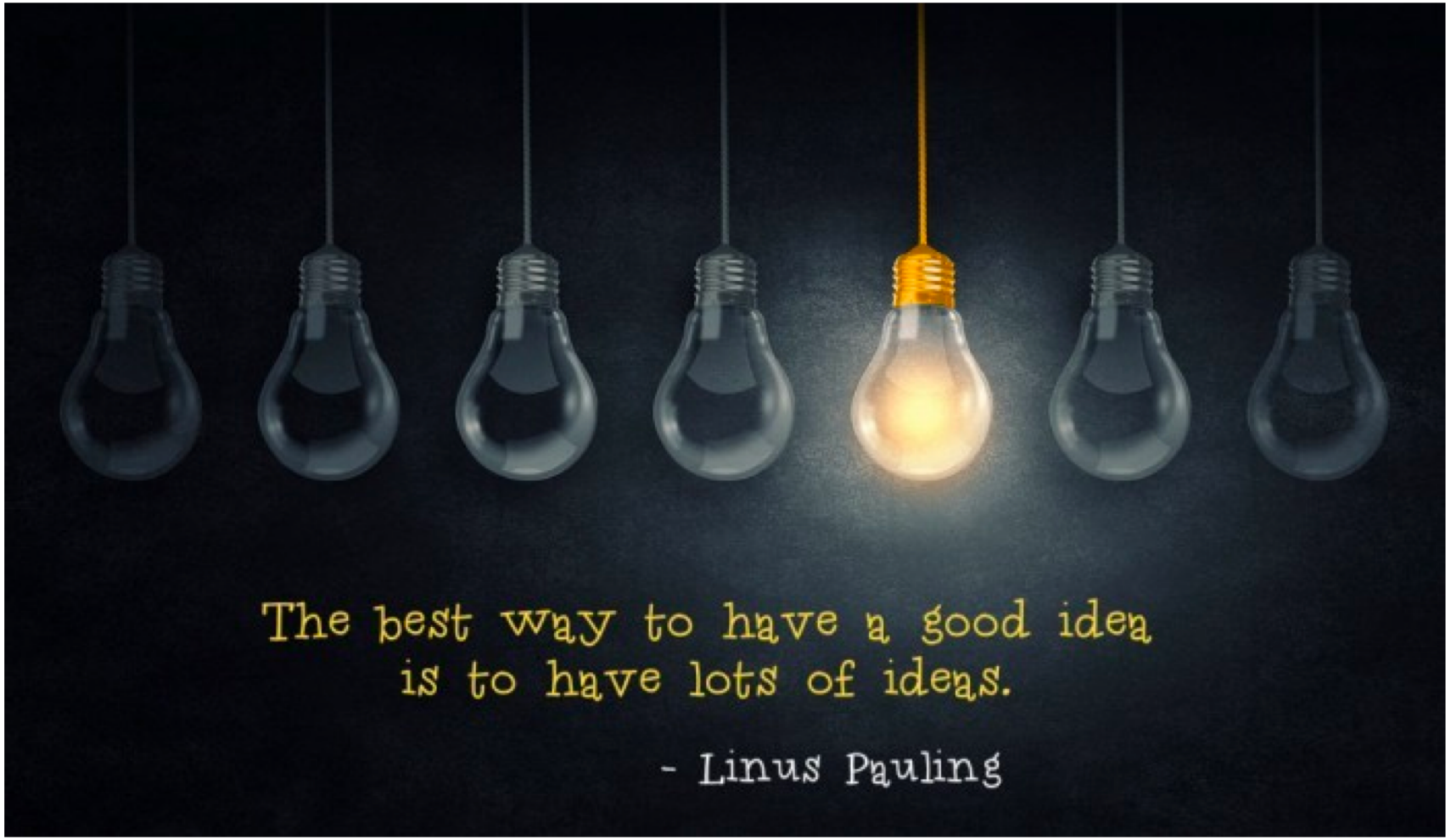
Soft keyboard



One button

Product

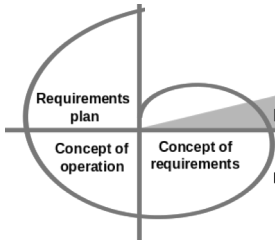
Brainstorming: The idea itself is risky.
So we have many ideas before picking one.



The first iteration should be as **low-fidelity** as possible

1.Determine objectives

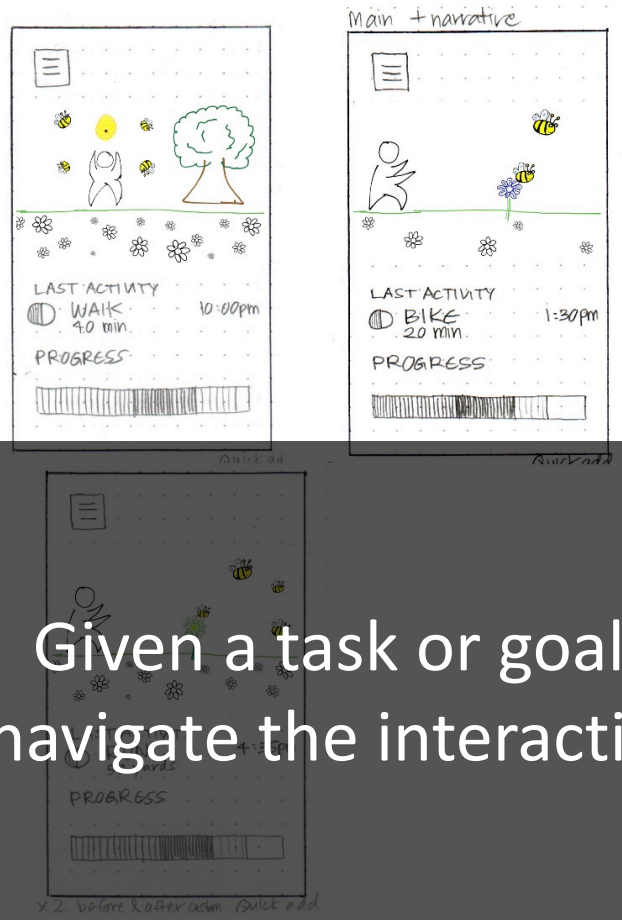
2. Identify and resolve risks



4. Plan the next iteration

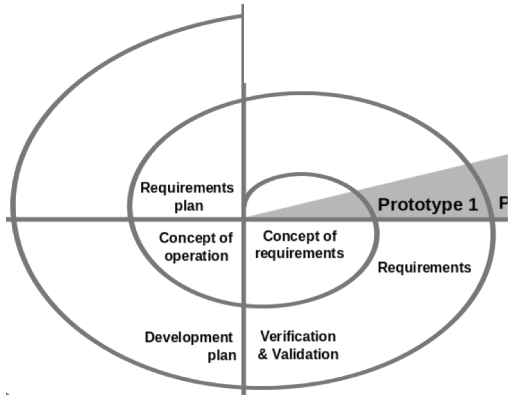
3. Development and Test

Low-Fi Prototypes mitigate risk by getting feedback on the most fundamental aspects of the design first



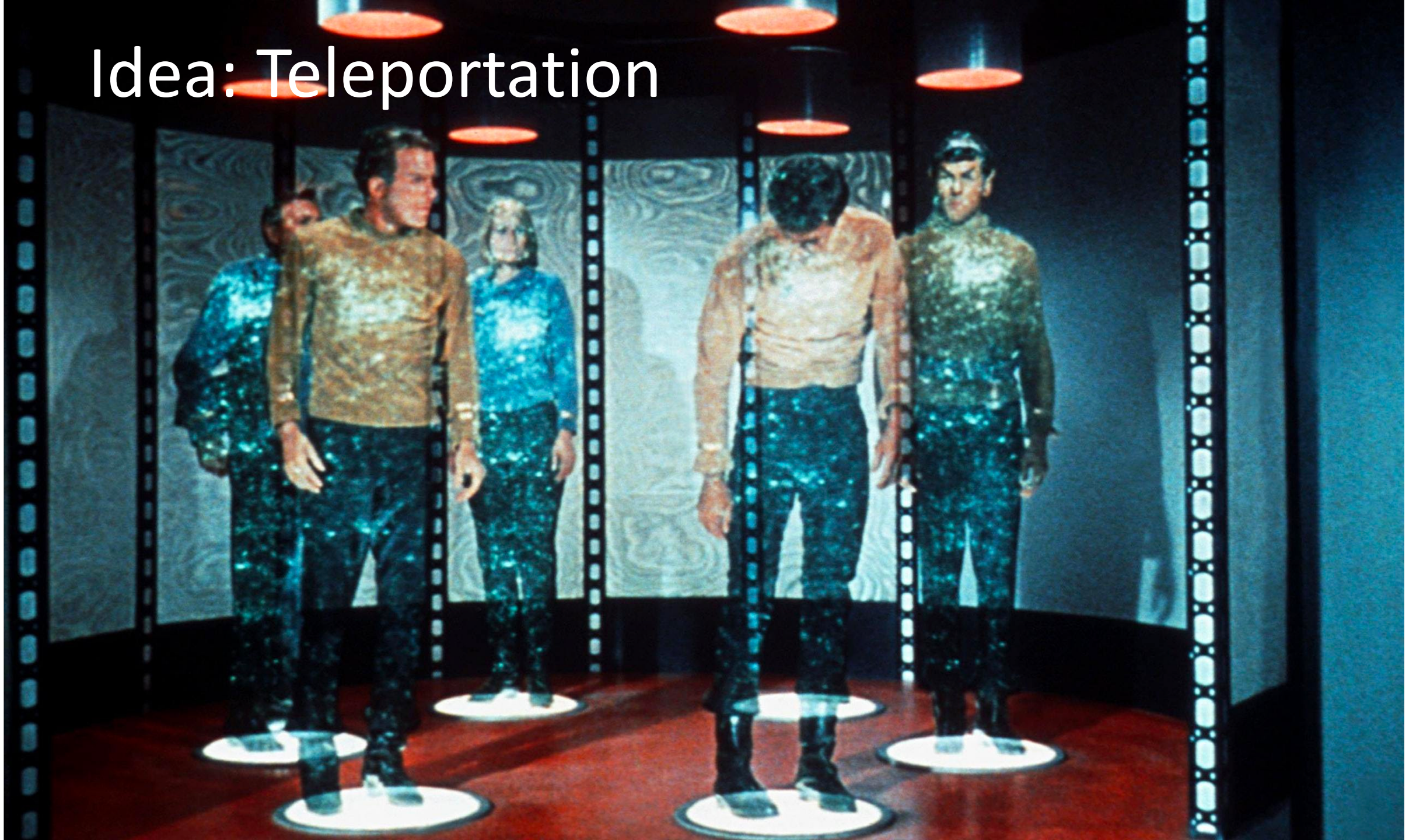
Given a task or goal,
can the user navigate the interaction coherently?

What’s the next biggest risk?



Is the idea technically feasible?

Idea: Teleportation



What are your biggest technical risks?

We will next assess technical feasibility to mitigate these risks

Design technique:

Flare and Focus

You started with many ideas.
You made and tested paper prototypes.
Why?

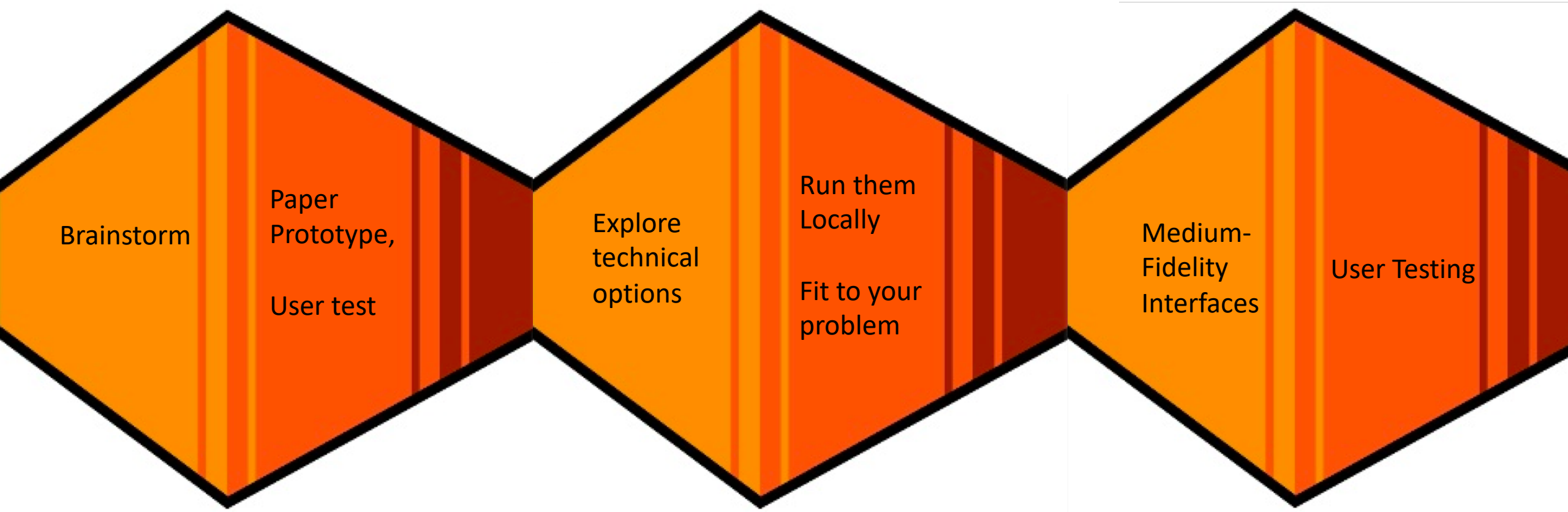
Make a web app

To pick an idea, explore and test many ideas.
This is how we learn from experimentation.

It’s called Flare and Focus

Learning from Experimentation

Sequential Flare and Focus

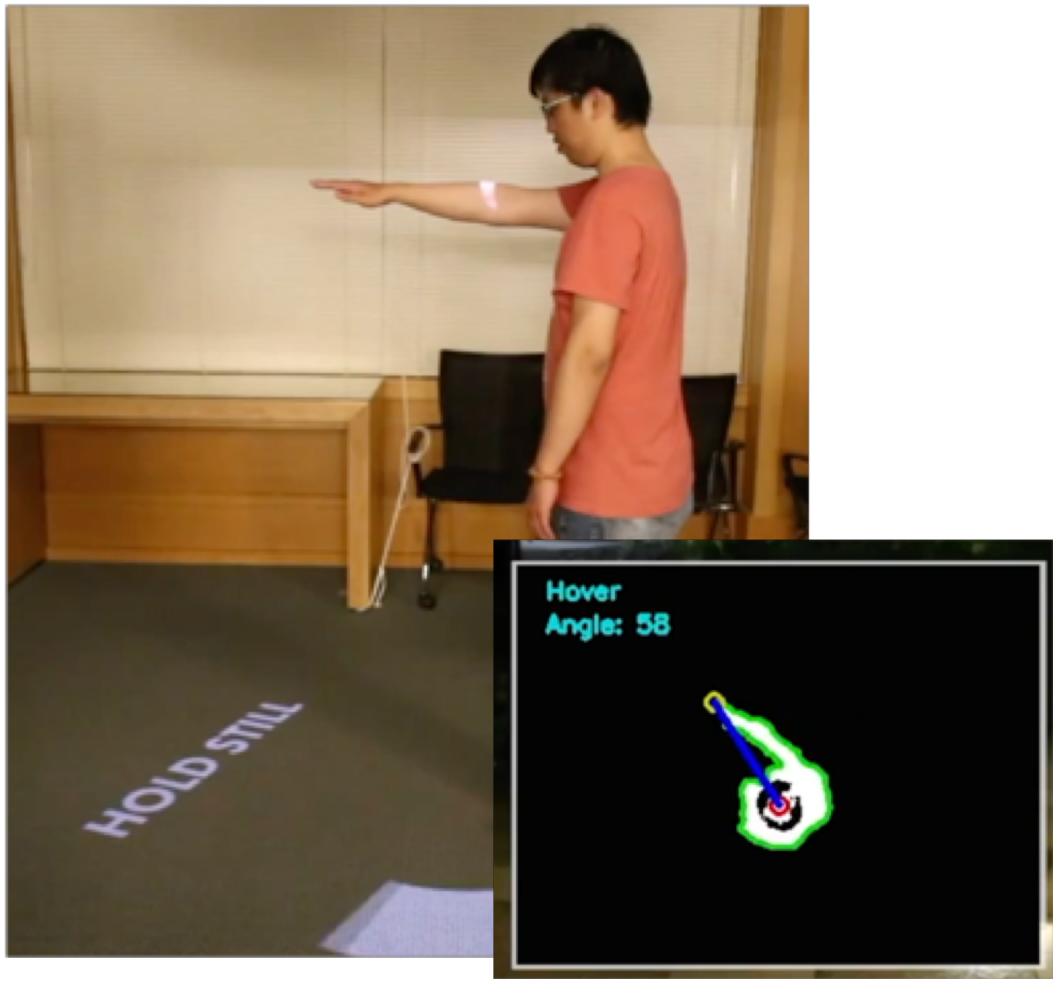


Ideas **Technical Elements** **User Interface**

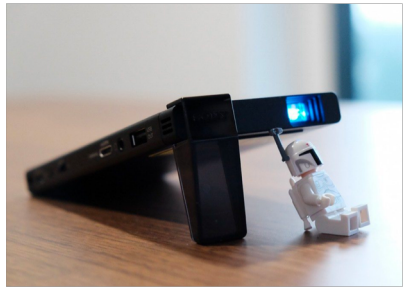
What were the two biggest technical risks of DroneIO?

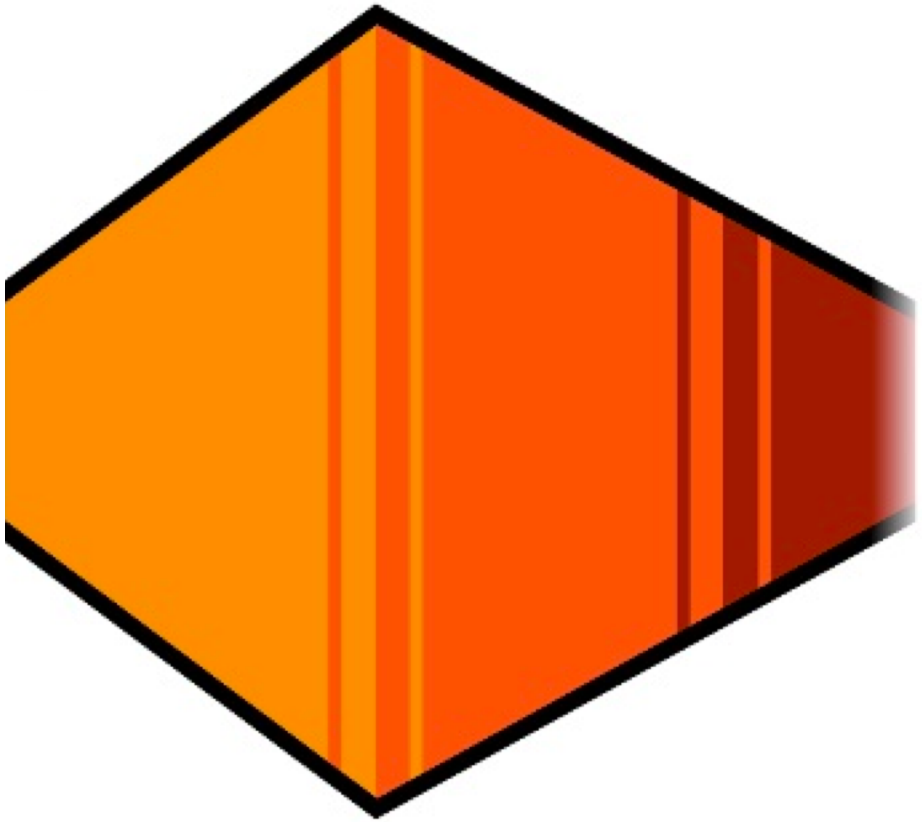
Can the drone carry the stuff?

Can the camera detect h



How to assess technical feasibility: Can the drone lift the weights?

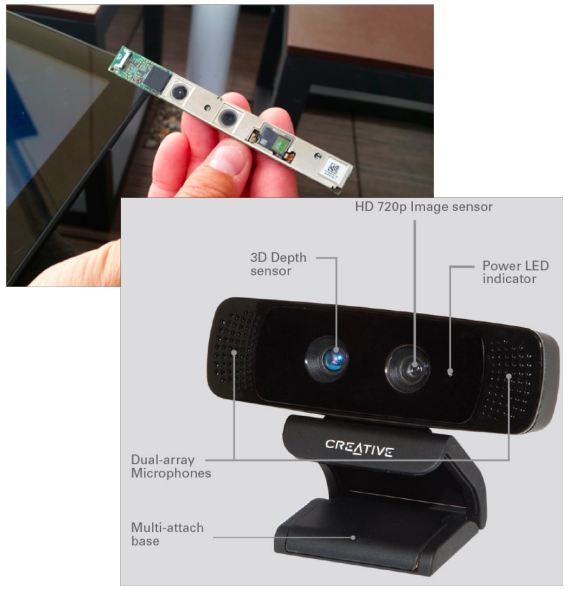


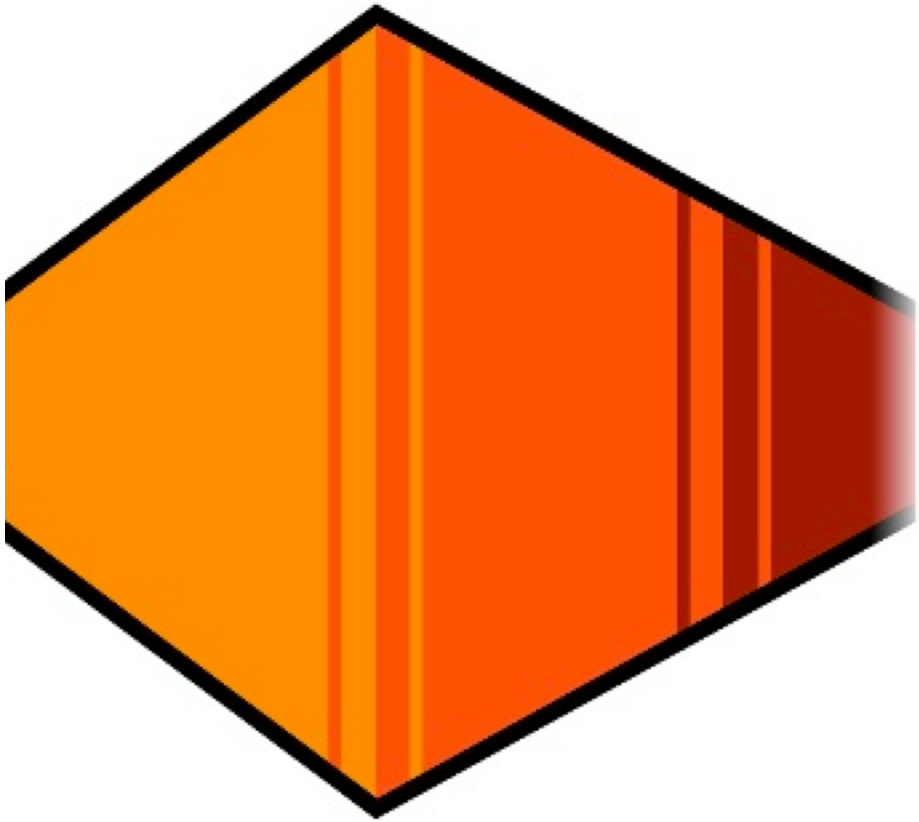


Technical Elements

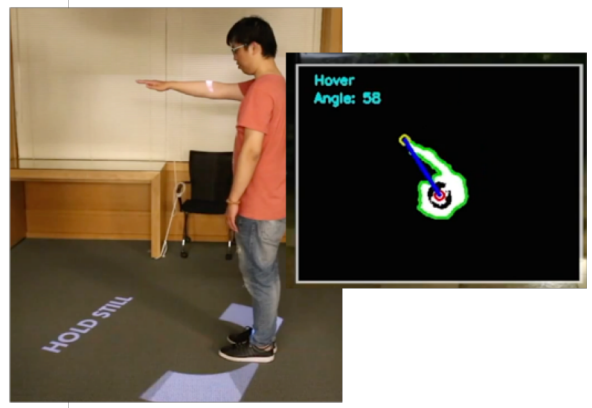
Can the drone carry the stuff?

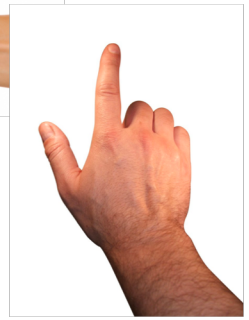
How to assess technical feasibility: Can the depth sensor detect gestures?





Can the camera detect hands?





Technical Elements

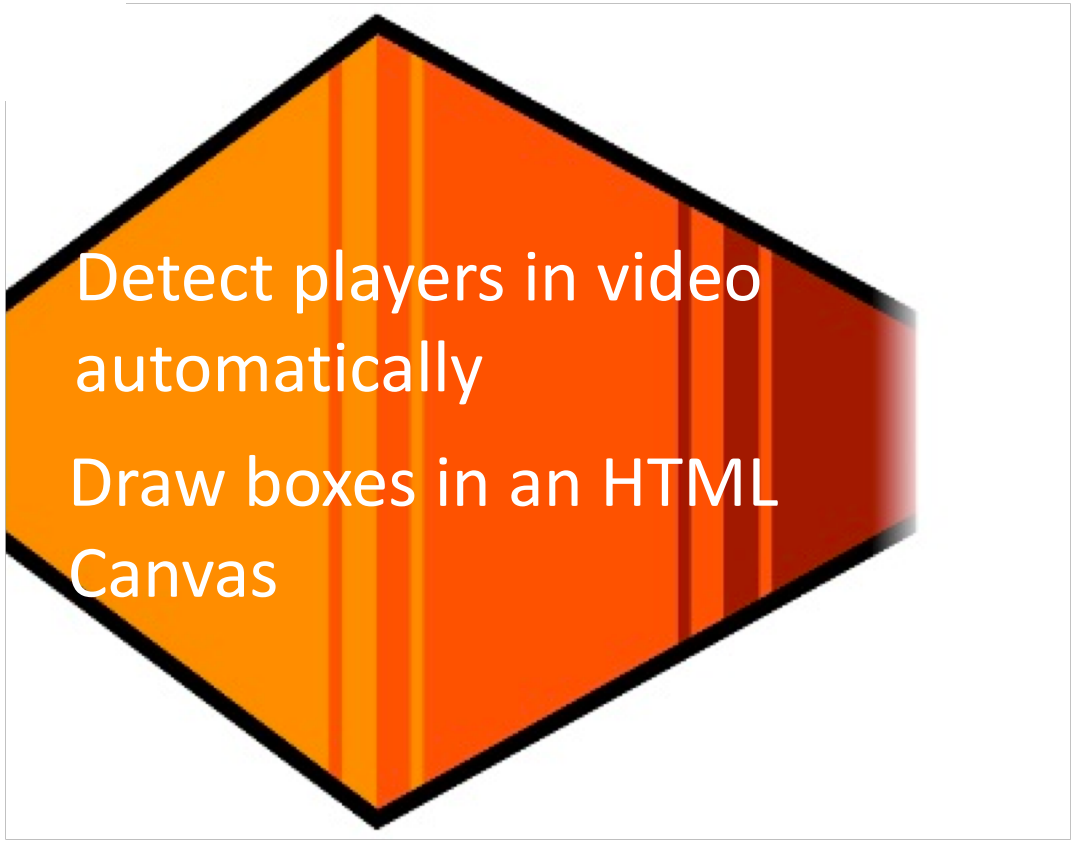
Technical Feasibility: Zumba Playlist

Trimming the beginnings and ends of songs (to cut out the boring parts)

Technical Elements

Technical Feasibility:
Teach the Pick and Roll

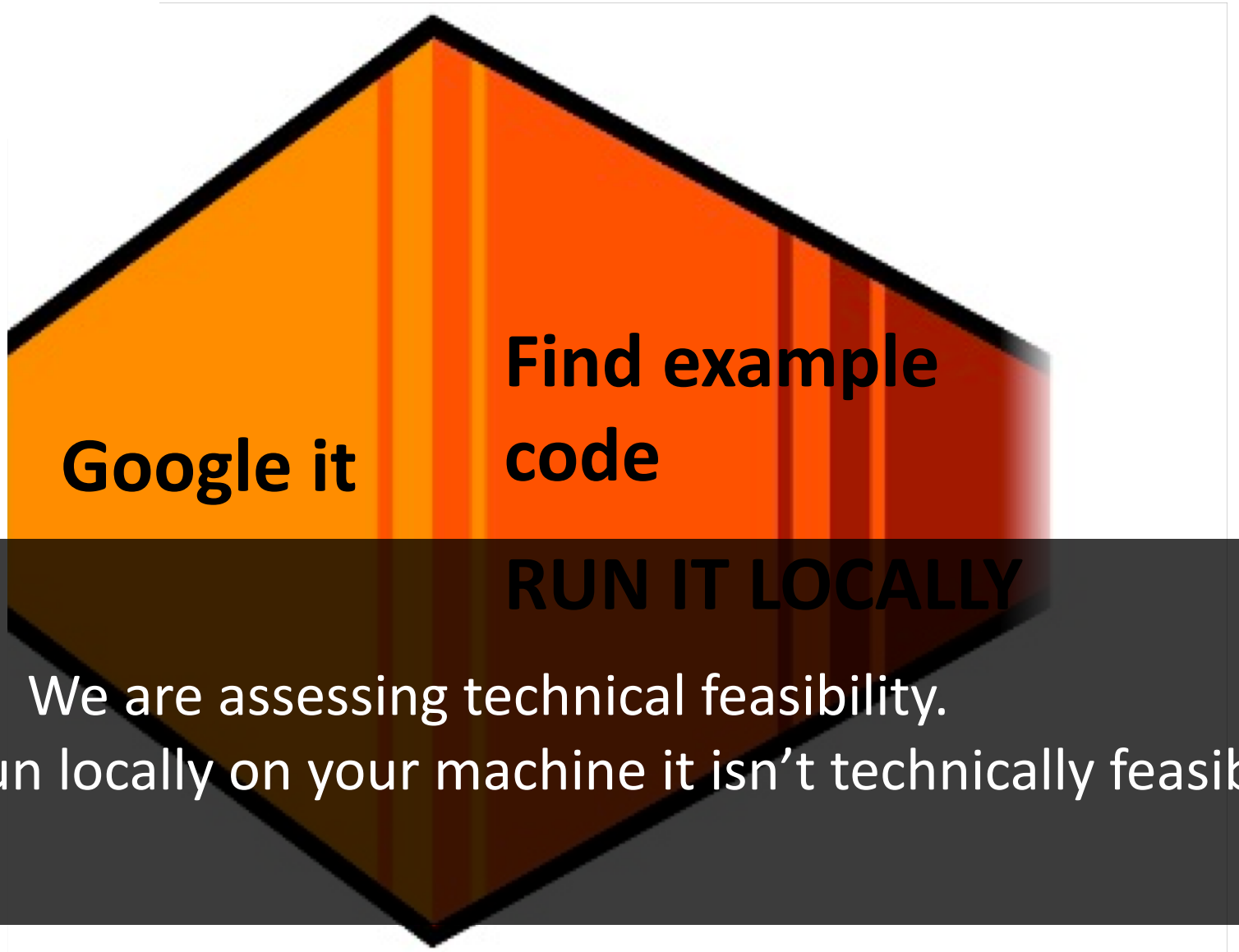
Stop the video and highlight certain players



Technical Elements

Assessing technical feasibility for your idea

Stop the video and highlight certain players

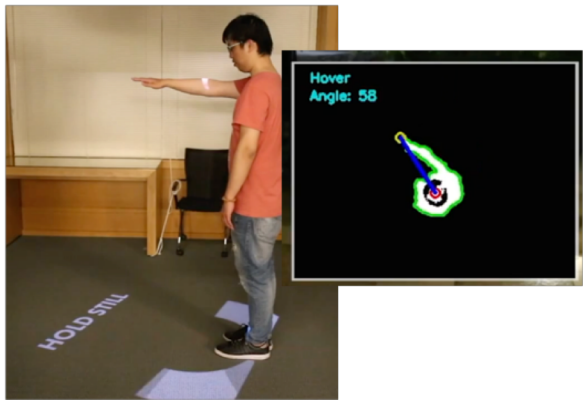


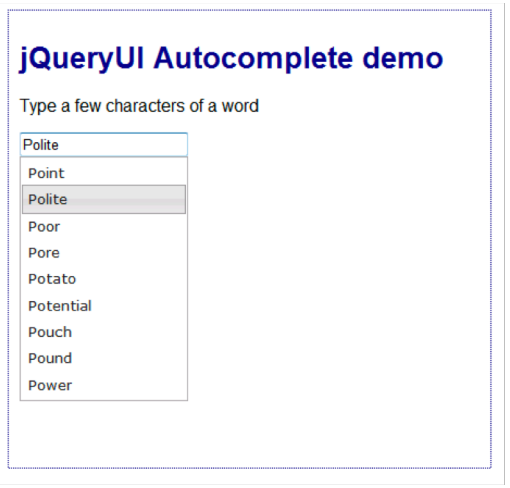
We are assessing technical feasibility.
If it doesn't run locally on your machine it isn't technically feasible.

How good should a technical feasibility prototype be?

Can the drone carry the stuff?

Can the camera detect hands?





What ***should*** it be?

Should it be pretty?

No

Should it be usable?

No

Should it work in IE6?

No

Just good enough to test technical feasibility

Why do I need to run examples locally?

Why does Gordon Ramsey do this?

What other domains use a staging area?

Java™ Platform, Standard Edition 7 API Specification

This document is the API specification for the Java™ Platform, Standard Edition.

See: Description

Packages

Package	Description
java.applet	Provides the classes necessary to cr
java.awt	Contains all of the classes for creating user interfaces an
java.awt.color	Provides classes for color spaces.
java.awt.datatransfer	Provides interfaces and classes for transferring data betw
java.awt.dnd	Drag and Drop is a direct manipulation gesture found in m between two entities logically associated with presentatio
java.awt.event	Provides interfaces and classes for dealing with different
java.awt.font	Provides classes and interface relating to fonts.
java.awt.geom	Provides the Java 2D classes for defining and performing
java.awt.im	Provides classes and interfaces for the input method fram

Why is it important to have drones and projectors ready to use?

Can the drone carry the stuff?

UI Design Philosophy:

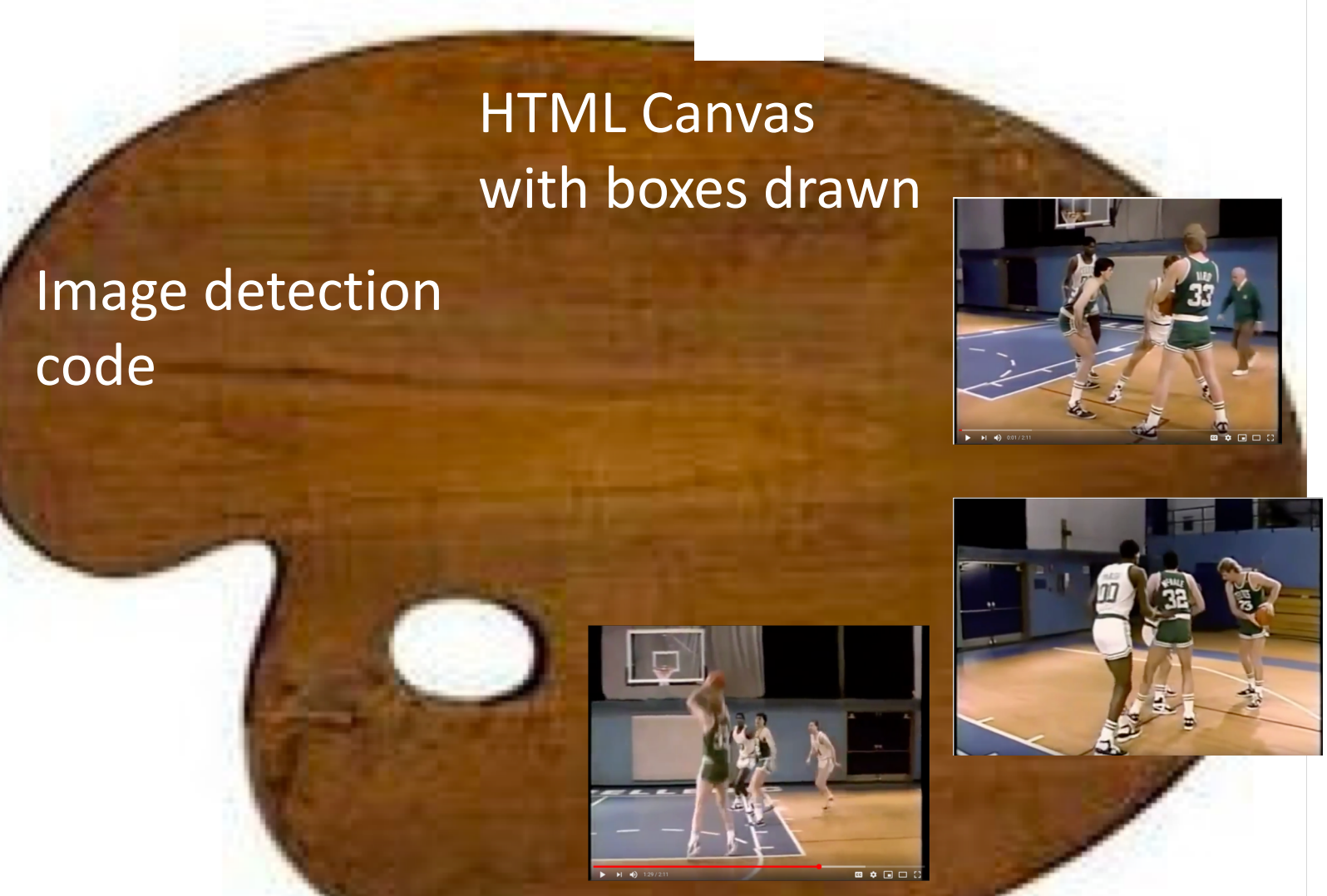
Ready-to-hand (Heidegger)

Once you have all the tools easy and ready to use,

You can stop focusing on the **tools**.

And start focusing on your **task**.

If you have example code (and your media) ready to use, you can test it more efficiently.



HTML Canvas
with boxes drawn

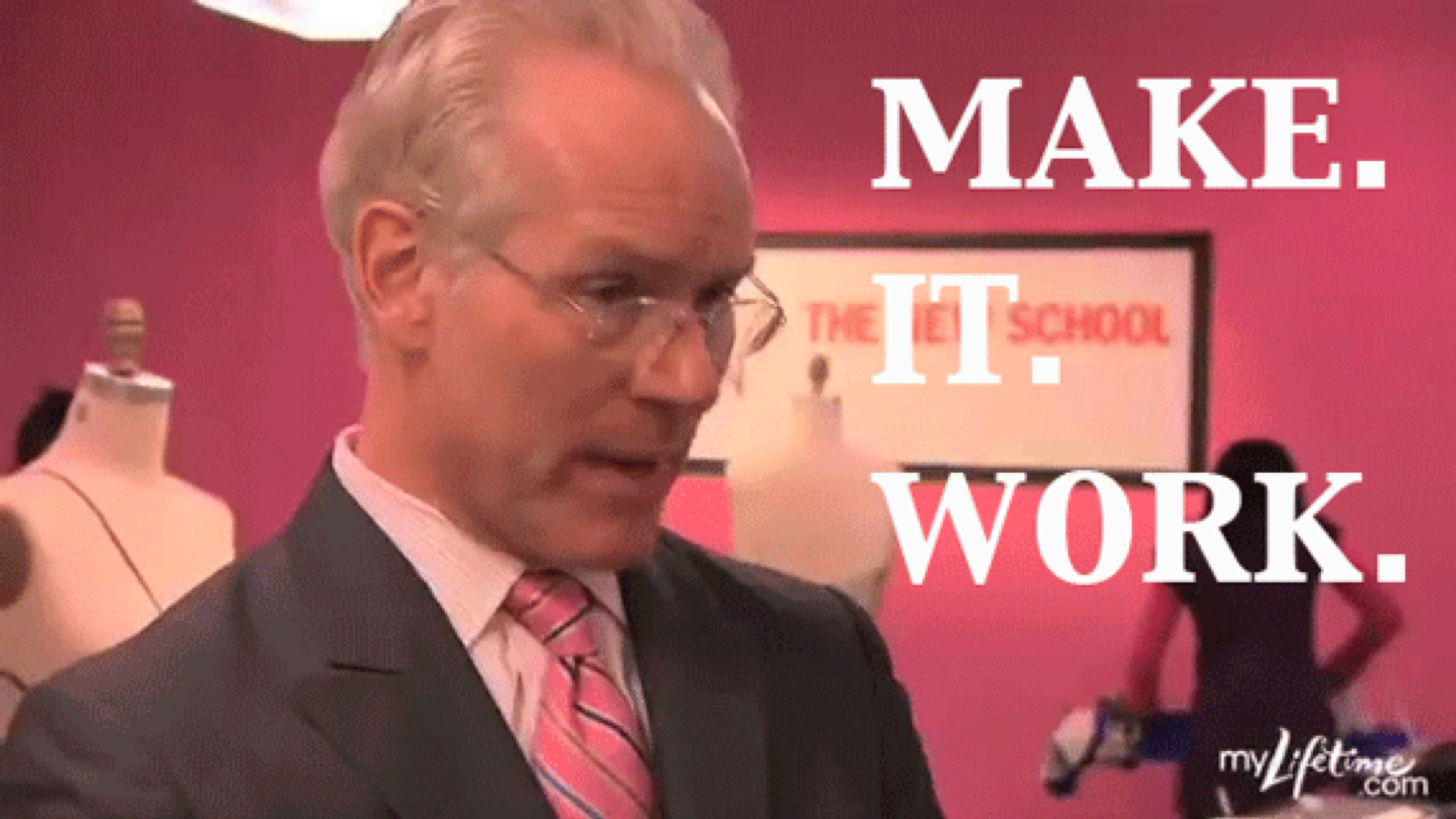
Image detection
code

Not everything will work.

Is that okay?

“I tried **silk chiffon**,
but it didn’t work.”

“I tried the Google Object Detection,
but it didn’t work.”


MAKE.
IT.
WORK.
myLifetime.com

Homework 11

Technical Prototype

- Technical Exploration (Flare)
  - Find similar applications and see how they implement them
  - Find the media assets you will need.
  - What are the biggest technical risks?
- Testing (Focus)
  - Make a technical prototype

Right now: With a partner or small group.

Google it: Find similar applications.

Wednesday:
Bring your media assets and technical prototype to class

- Find assets for at least one idea
- Explore at least one technical solution
- Share it with your group
- Get feedback and ideas.

Come only to your section. Same groups, same places.