

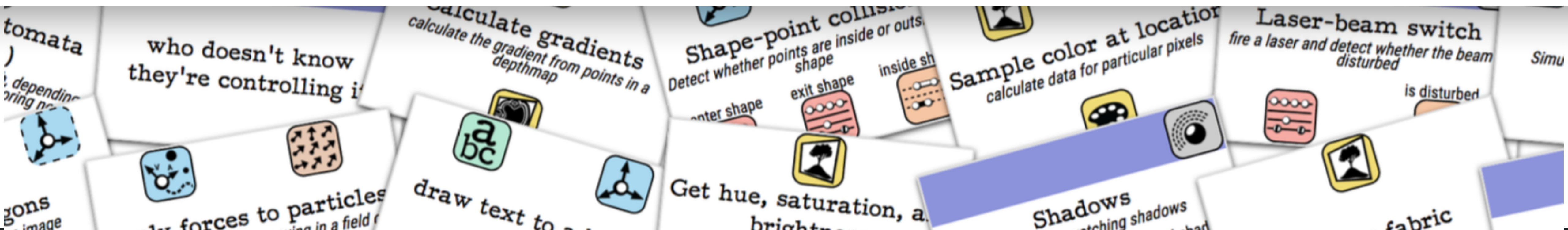
Generominos!

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UCSC



Ideation cards for interactive generativity

- Generativity is a pipeline of data
- Changed, expanded, or pruned through various transformations

(see Compton & Mateas, “A Generative Framework of Generativity” EXAG '17)



Ideation cards

- Accidents and providence
- Juxtaposition
- Tangible objects
- Spatial relationships
- Improvisation

TYPE 2. INDEX CARDS

Example 1. Recipe cards

Index cards contain a lot of information. I normally call them “*book on cards*”. The first common use for these kind of cards (Index cards) were cooking receipt cards. Below is a swedish recipe card from 1972, *bacon wrapped minced meat pucks on mashed potatoes*. My mother had a whole box at home. This was before the olive oil was available in Sweden to the general public.

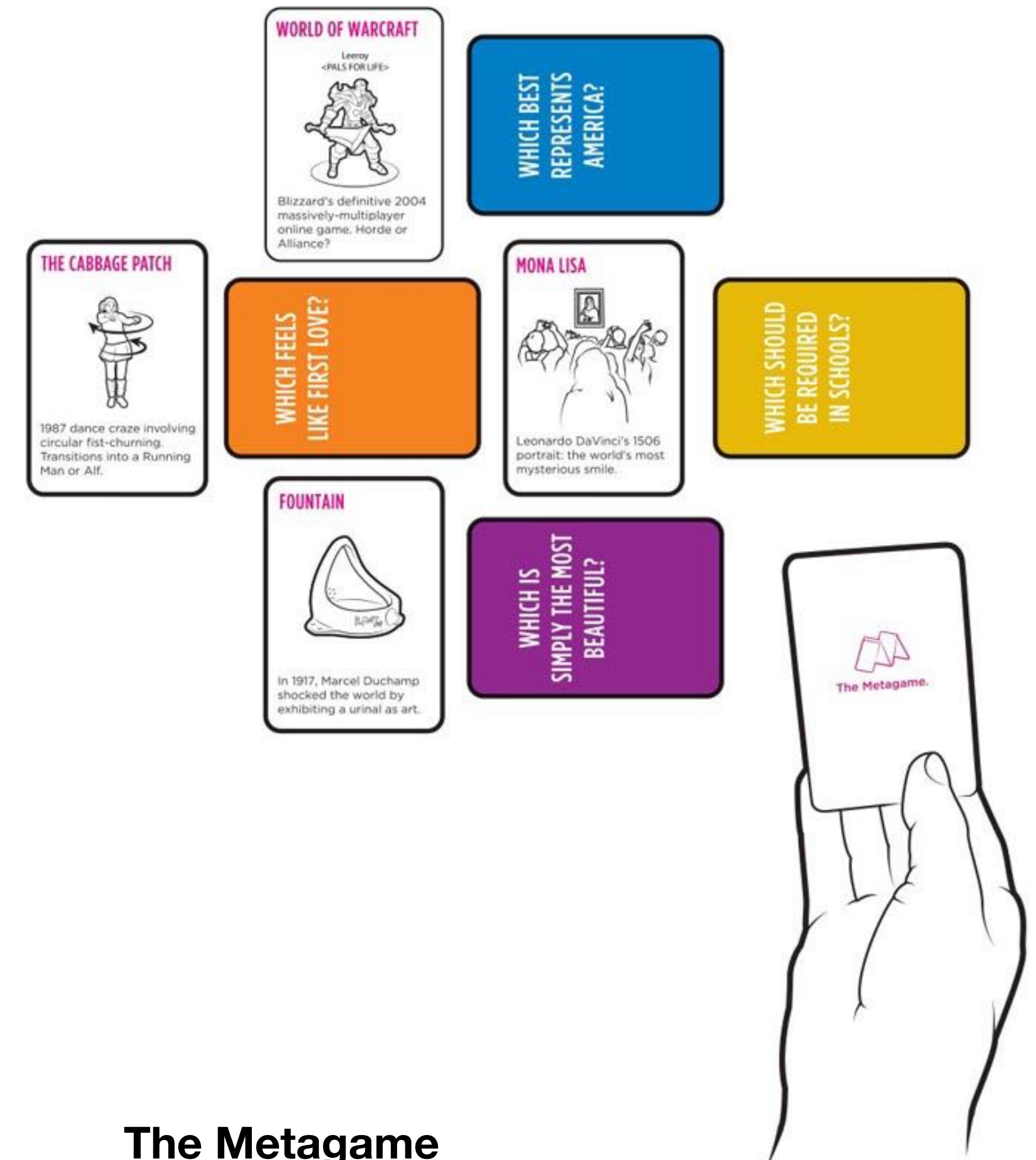


Example 2. IDEO Method Cards (2003-)

<https://methodkit.com/research-method-cards/>

Ideation cards

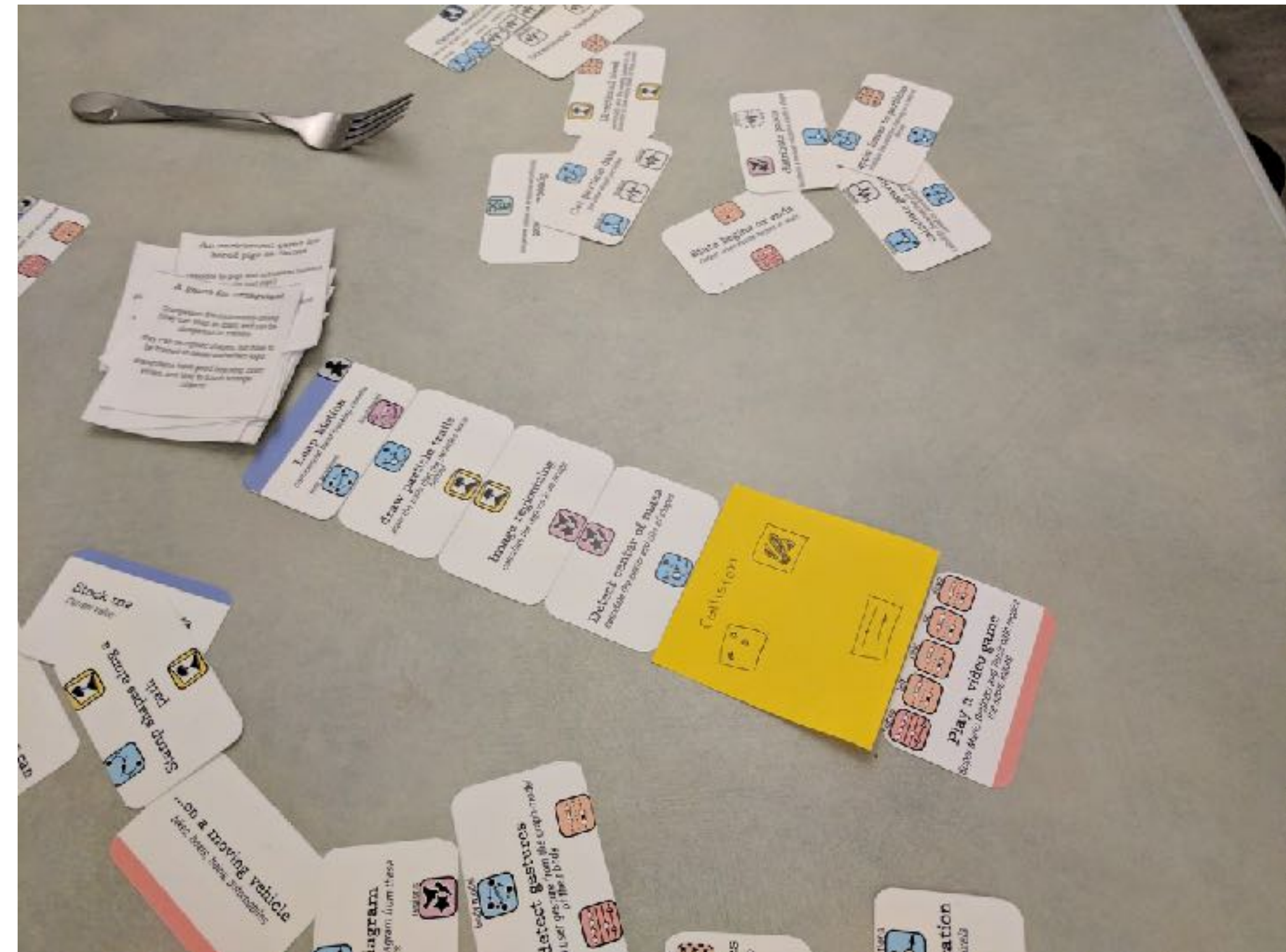
- Accidents and providence
- Juxtaposition
- Tangible objects
- **Spatial relationships**
- Improvisation



The Metagame

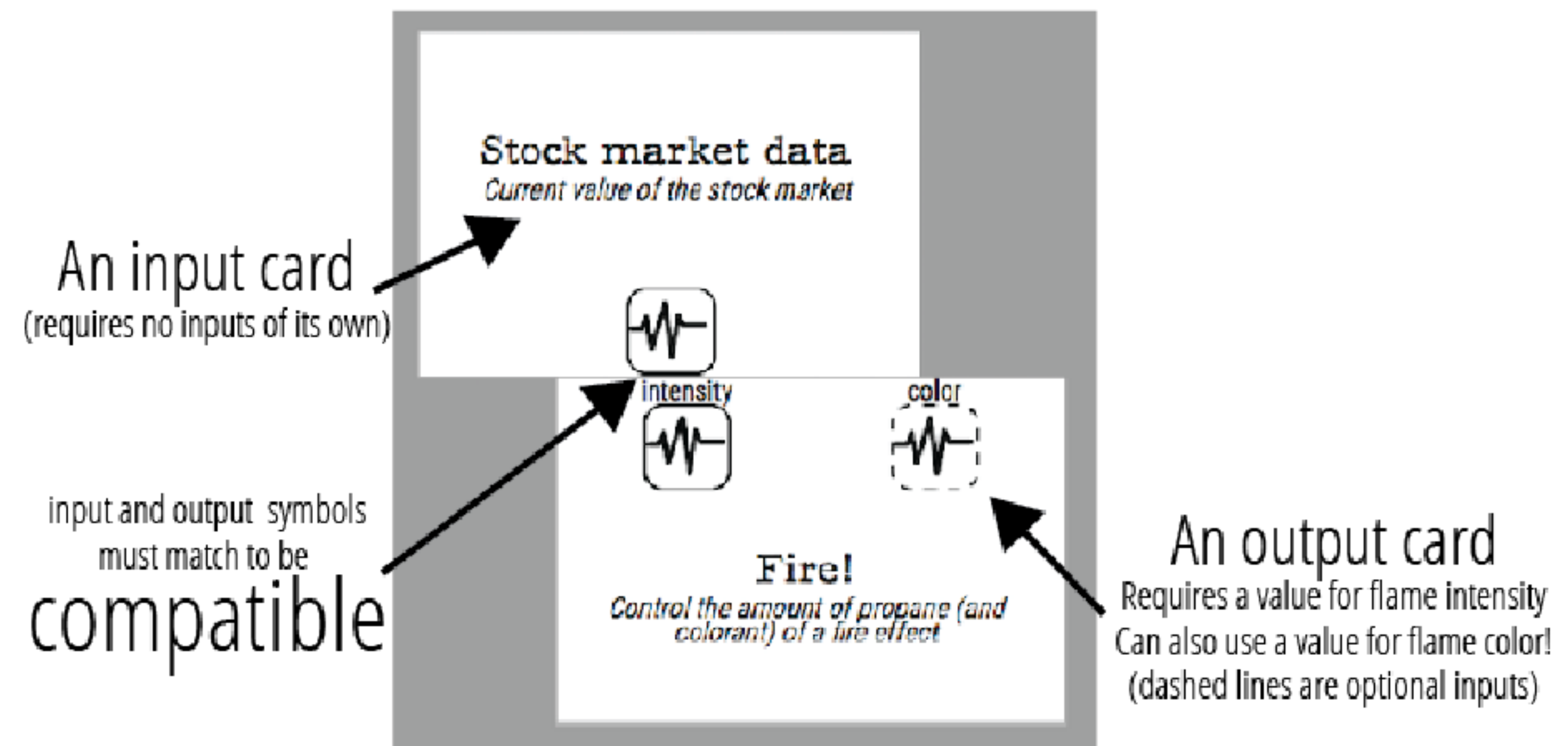
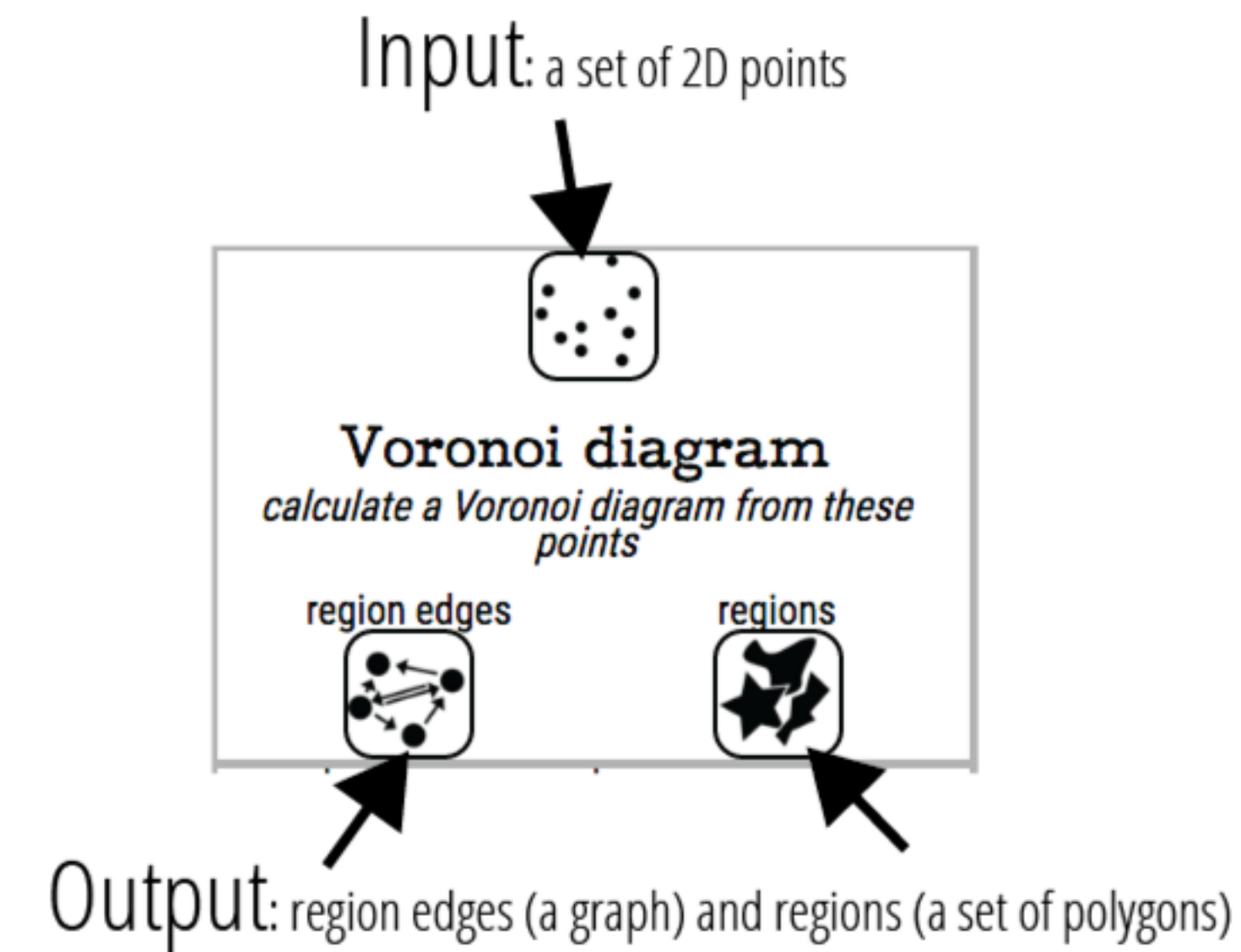
Ideation cards

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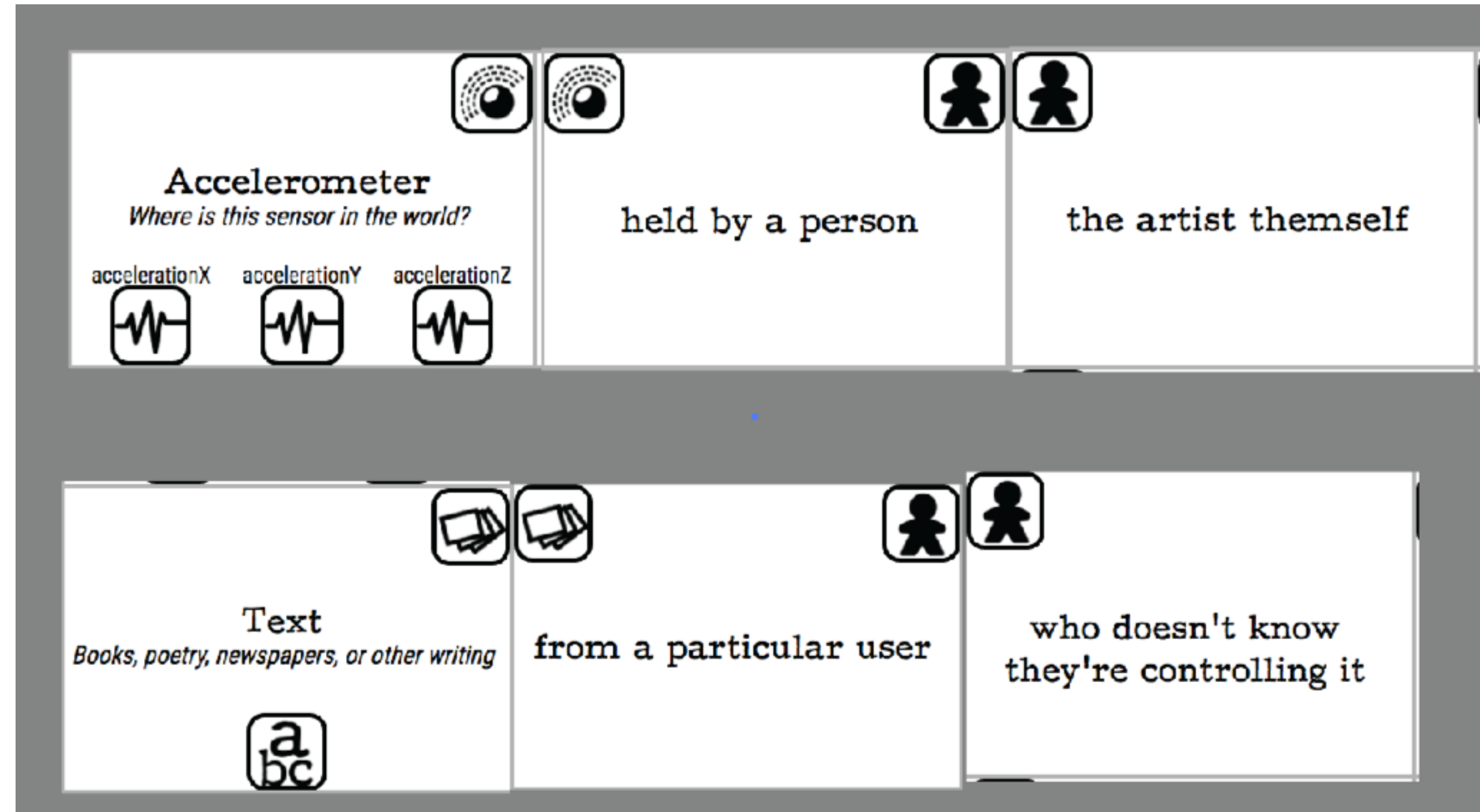
Generominos

- Build a generative pipeline
 - From input cards
 - To output cards
 - with data transformations creating a path
- Information has to come from a source
- Data can't magically change type



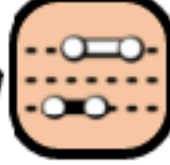
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	person		content
	sensor		value <i>A number changing over time</i>
	event <i>Events are things that happen instantaneously, like a key press or button click</i>		state <i>Whether something is true or false, over time, between starting and stopping points</i>
	geolocation <i>A location somewhere on the Earth</i>		shape <i>Shapes mathematically defined by curves or straight lines</i>
	graph <i>A set of edges and nodes</i>		curve <i>A set of points describing a path. May also have control points for smooth curves</i>
	particle <i>Points with properties like mass, velocity, size, and color</i>		vector <i>A three- or two- dimensional point in space</i>
	waveform <i>A digital or analog recording of a sound's vibration</i>		text <i>Letters, numbers, words or other symbols. May be emoji or non-English characters</i>
	vectorfield <i>A grid (or cube) of values, so that each point in space has a value</i>		trimesh <i>A triangle mesh represents a 3D scene or object as a set of triangular faces (which may have texture or color)</i>
	voxel <i>A 'volumetric pixel' that represents volume in space</i>		color <i>A color represented by RGB (or HSLA) values</i>
	depthmap <i>A greyscale image of a scene, where the brightness of each pixel shows its distance from a hypothetical camera</i>		image <i>A picture, represented by pixel data (which may be RGB or HSL)</i>

Generominos

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An installation for a cat shelter

Playable by many cats
should make the cats look cute on webcams to encourage adoption
can humans play with the cats remotely?

An art installation for a hospital atrium

make an installation that can be interacted with quickly, or just appreciated as people walk through an atrium
the environment is stressful and noisy, design something calming
for sanitation, no touching the art is

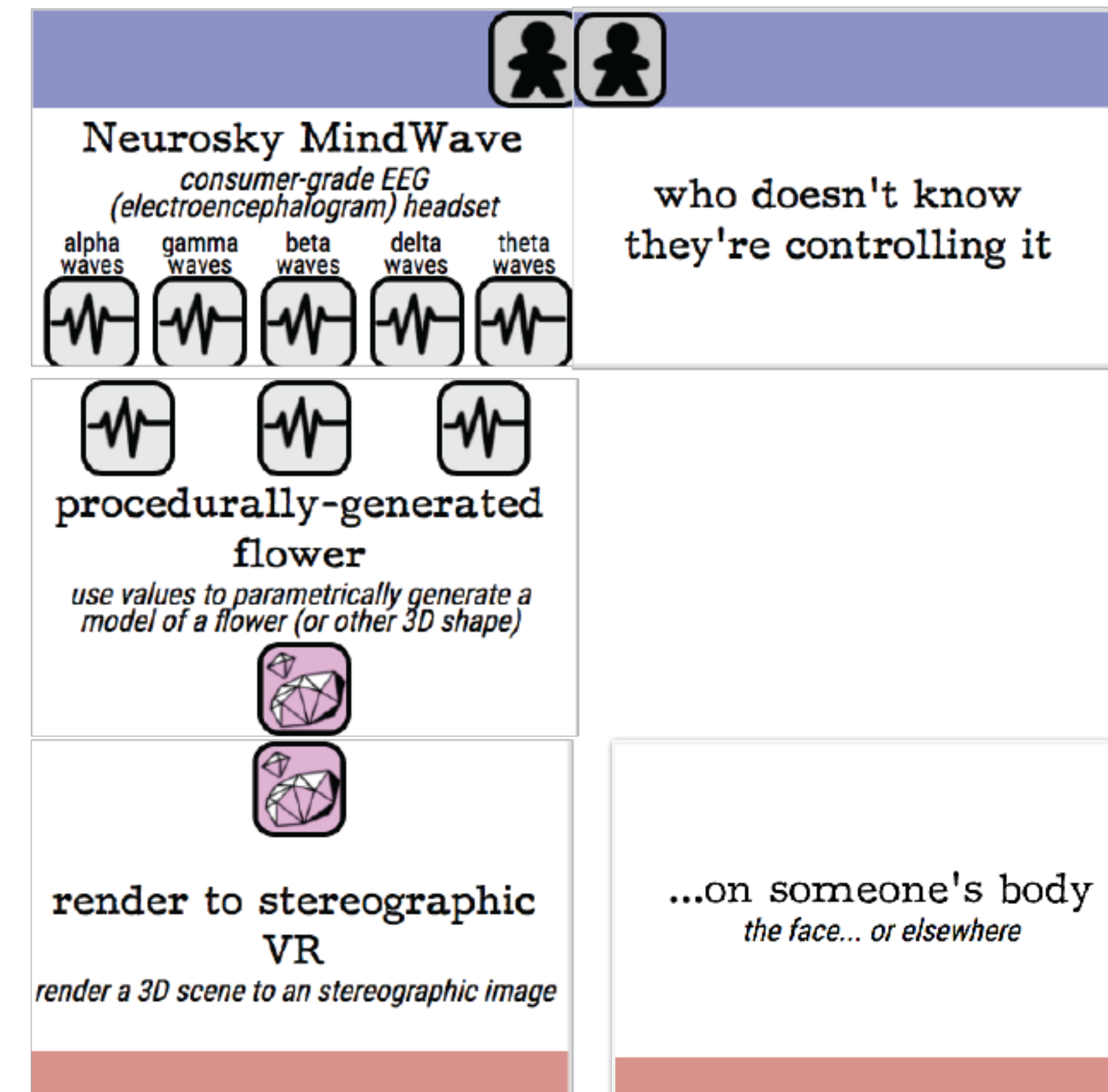
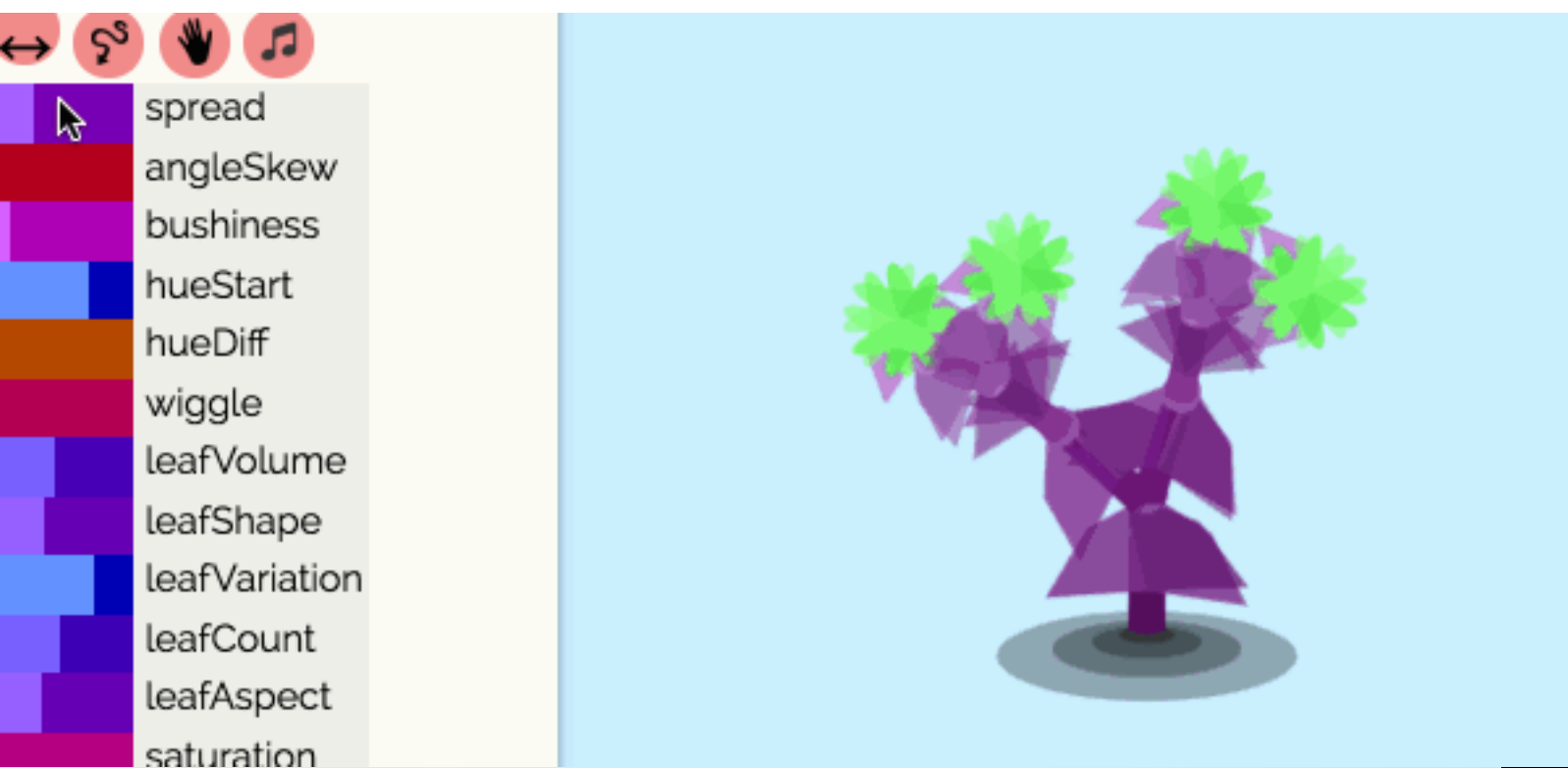
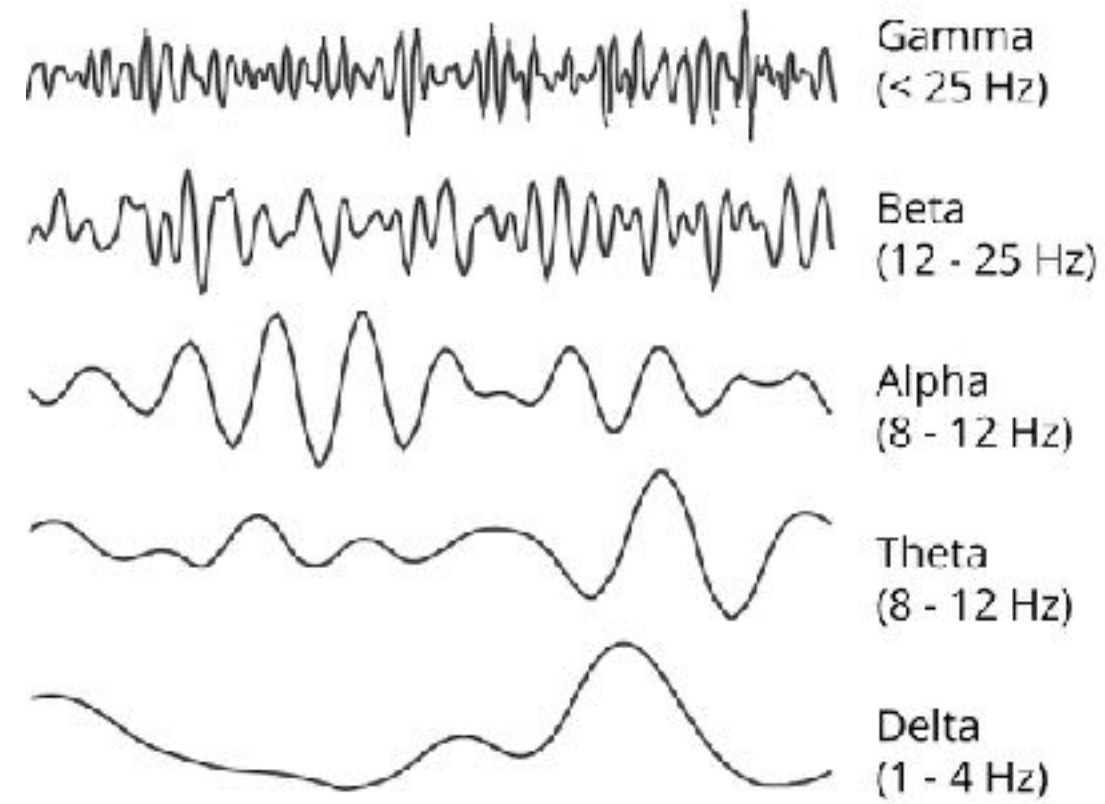
Musical improv

A string quartet (or rockband, or jazz trio) wants some digital art to respond to their music
should respond to their music
should be engaging to the audience
will only be played during a few concerts

Indiecade 'soaker'

Indiecade has commissioned you to show a game
but it has to absorb 100 players per hour
you can choose whether its played at day or at night

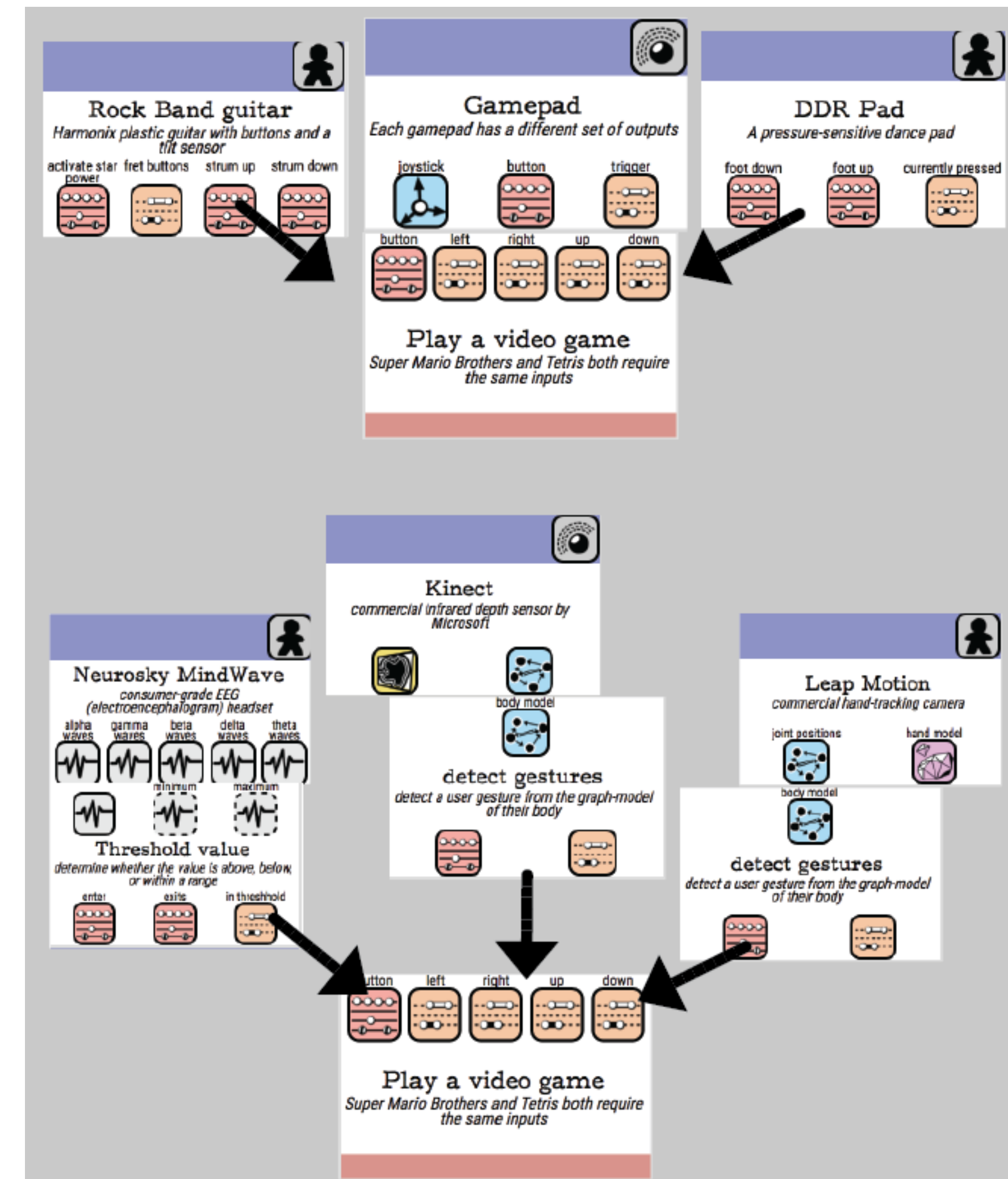
Example:



Case Study: Idle Hands

Hey, why is it so hard to design for the Kinect and Leapmotion?

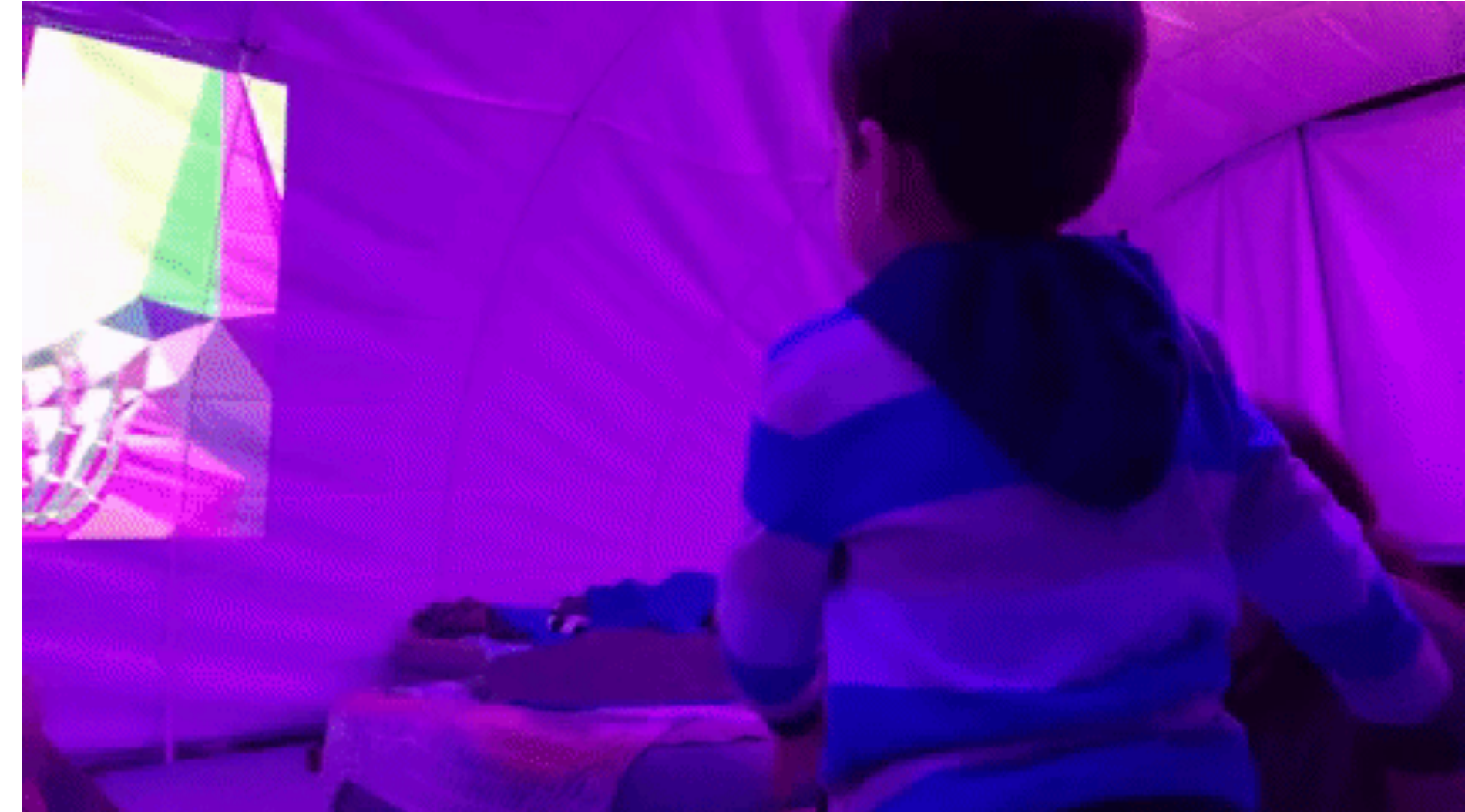
The plastic guitars and dance mats worked fine....



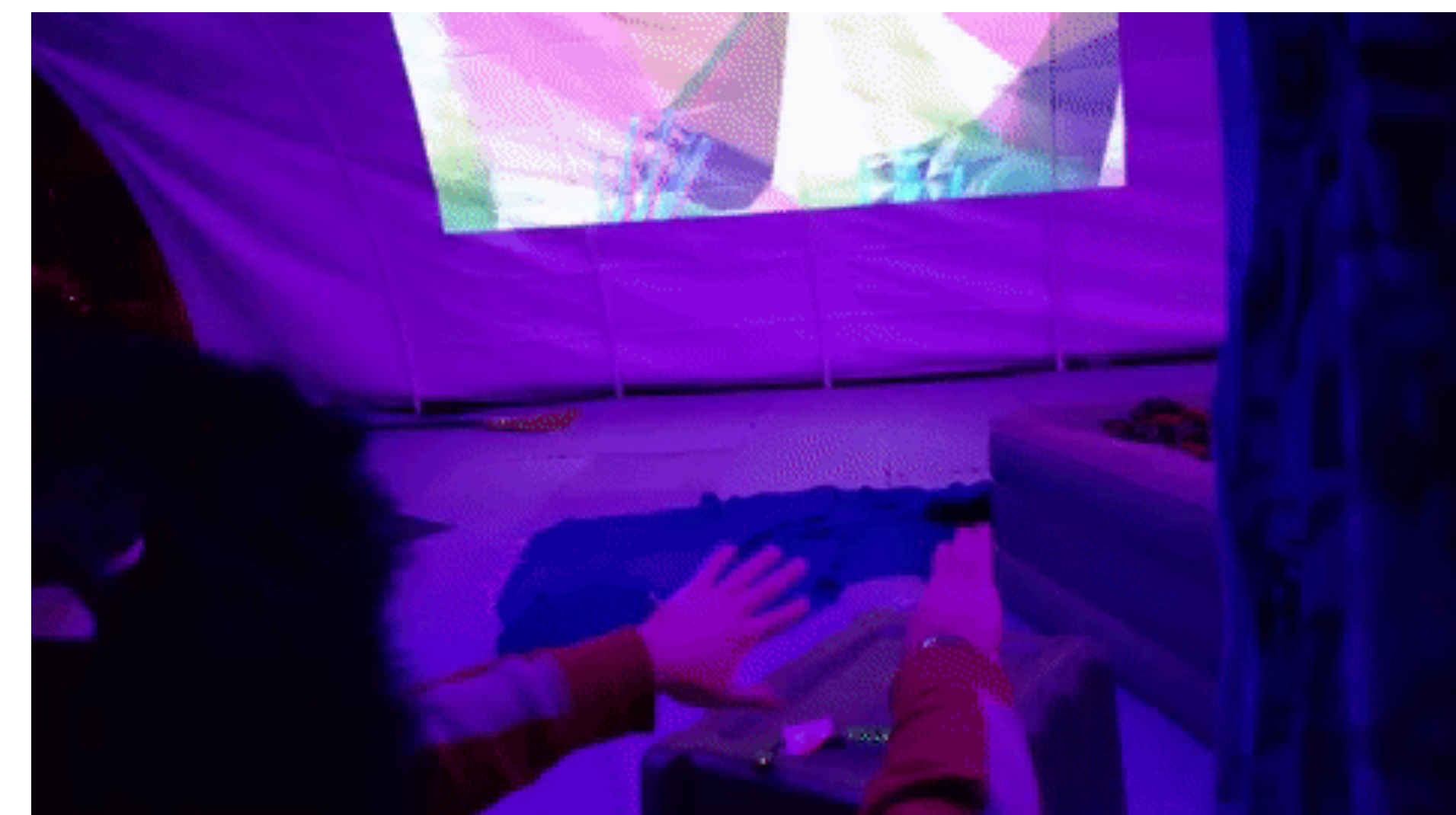
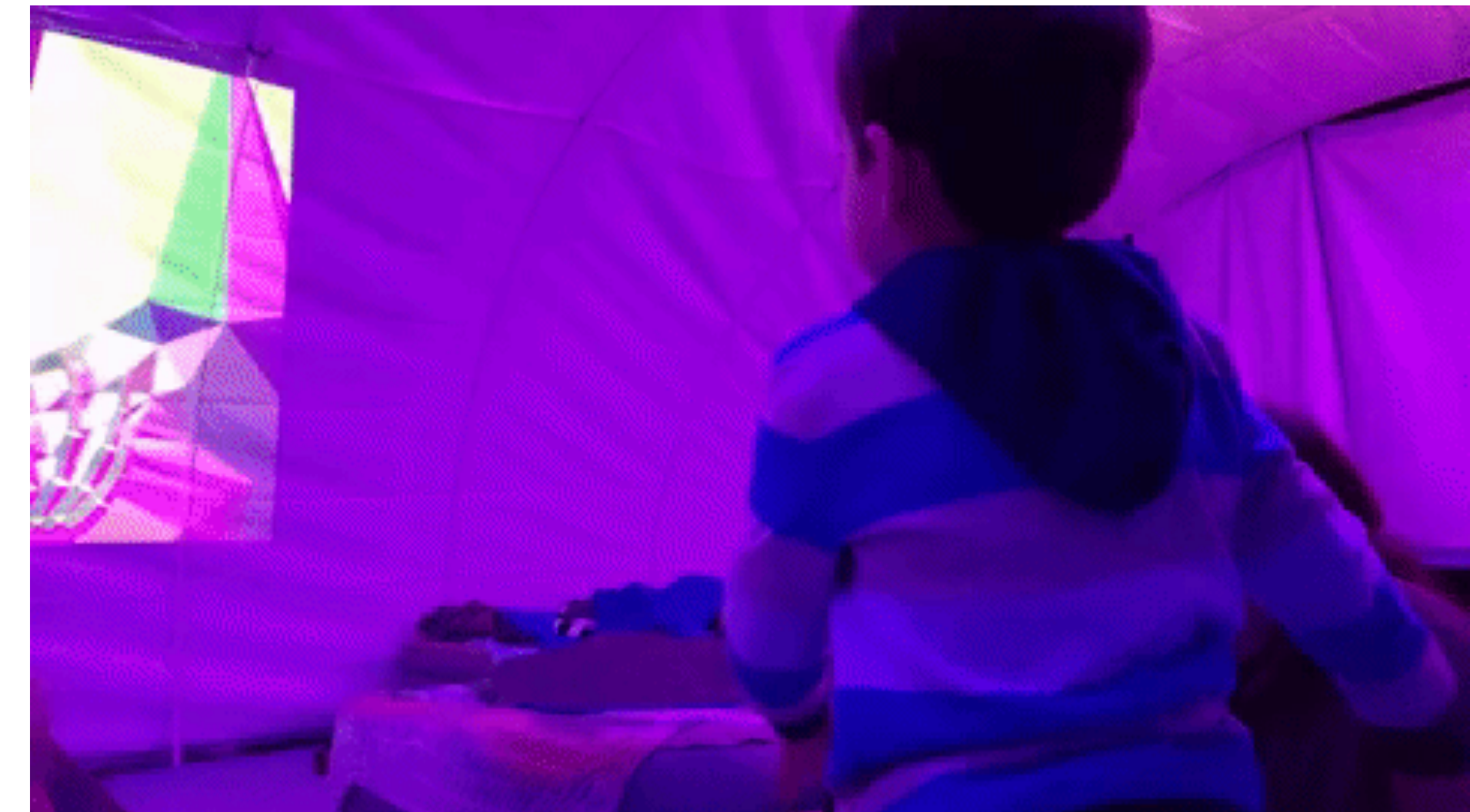
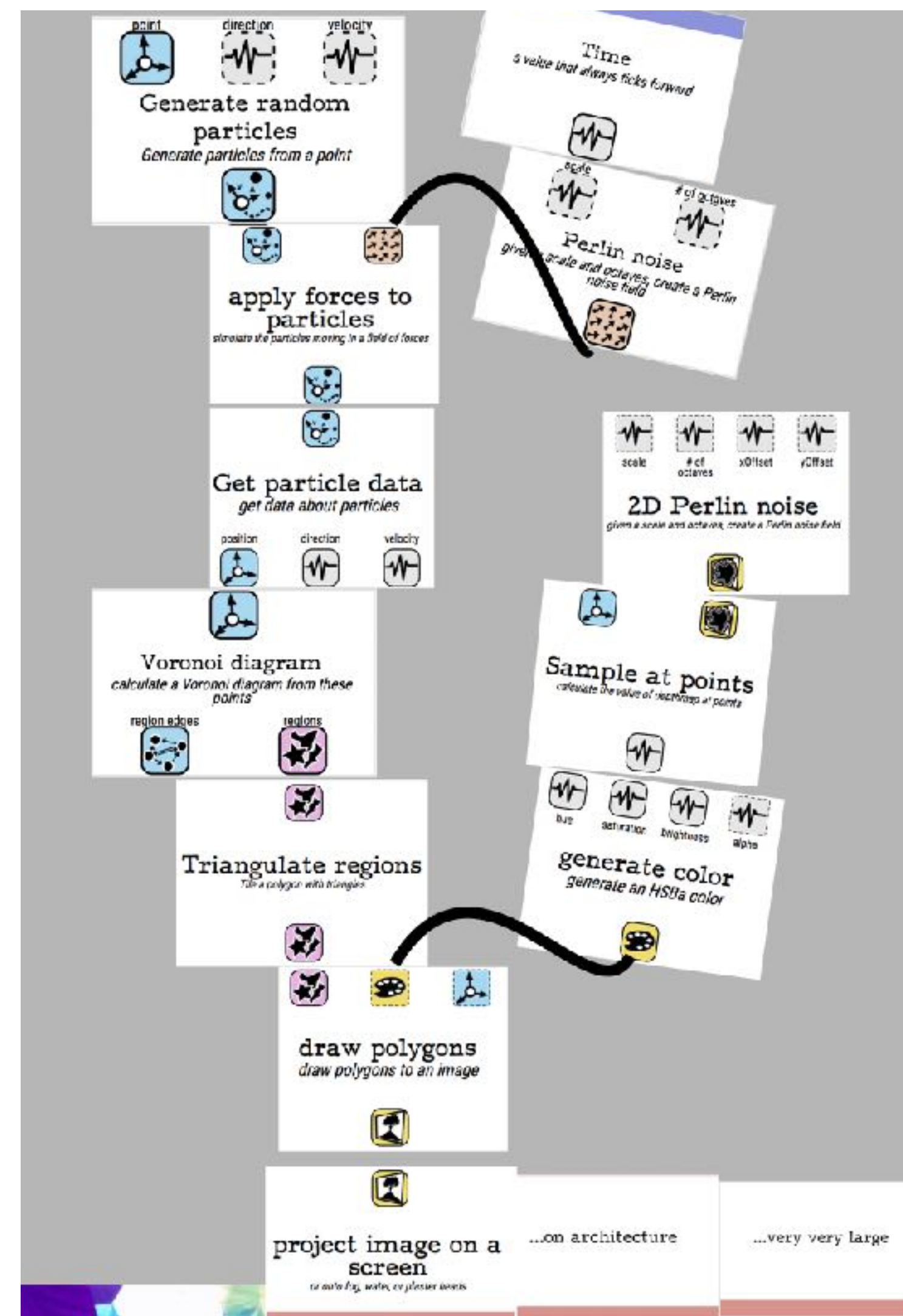
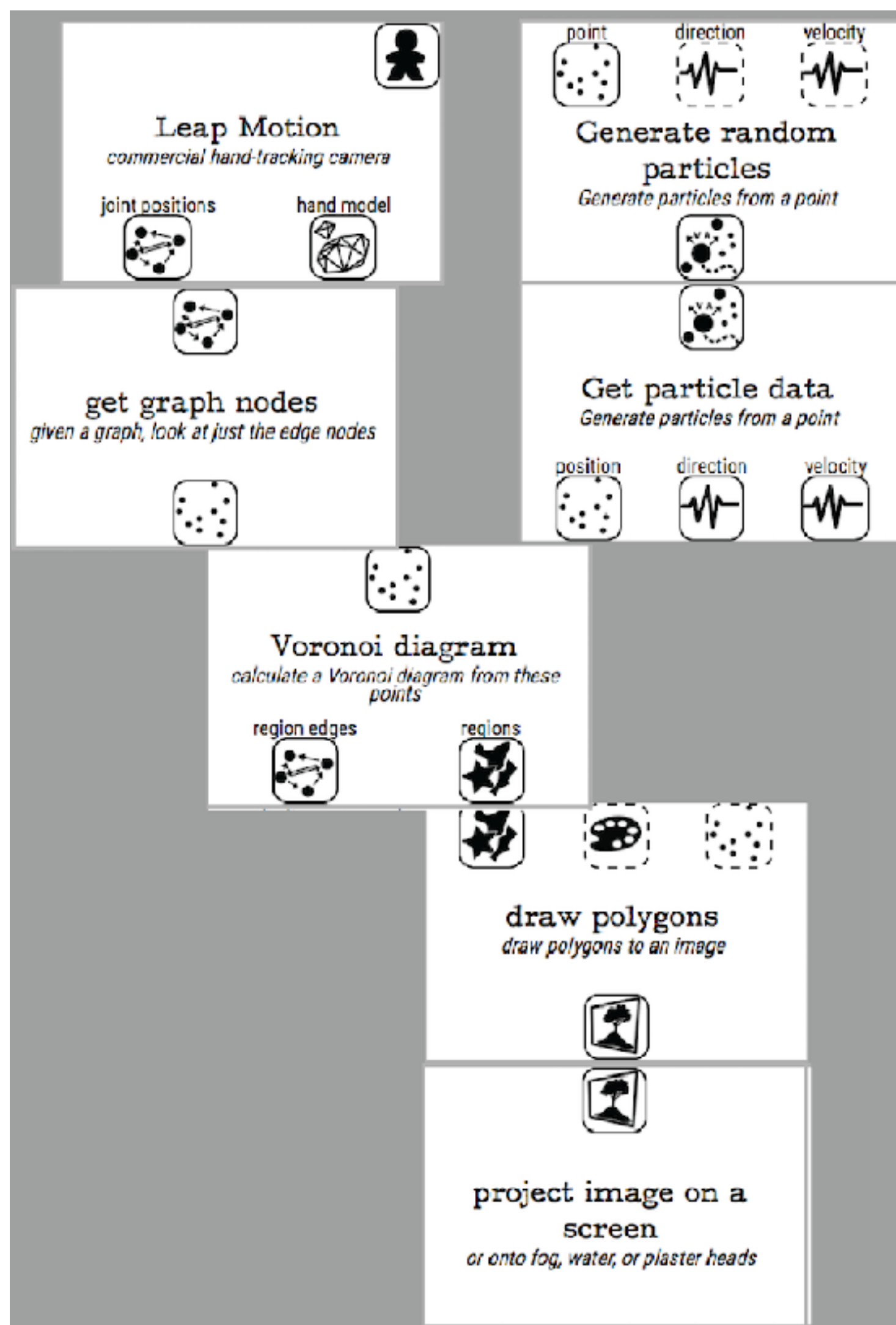
Case Study: Idle Hands

Design specification

- Something for the LeapMotion
- Something that will work with user input, or by itself
- Stable and quick to build



Case Study: Idle Hands



User Study

21 Students in an Alternative Controllers class (upper division Computational Media)

- Students would familiarize themselves with the construction cards by analyzing an existing system from a selection of interactive installation artworks and alternative controller games. These example systems were preselected to ensure that they were modelable with the cards.
- Students would generate a new alternative controller system using the construction cards and the scenario cards to motivate/guide their designs in a group.
- Students would fill out a post activity questionnaire qualitatively exploring their experience using the cards (e.g., “What did you like about the cards?”), quantitatively examining the cards effectiveness for generative and analysis tasks using a seven-point likert scale (e.g., “The construction cards were helpful in designing a new system:”), and identifying areas in need of refinement for the cards (e.g., “Are there any data types you feel are missing?”).

<https://www.pinterest.com/galaxykate/interactive-art/>

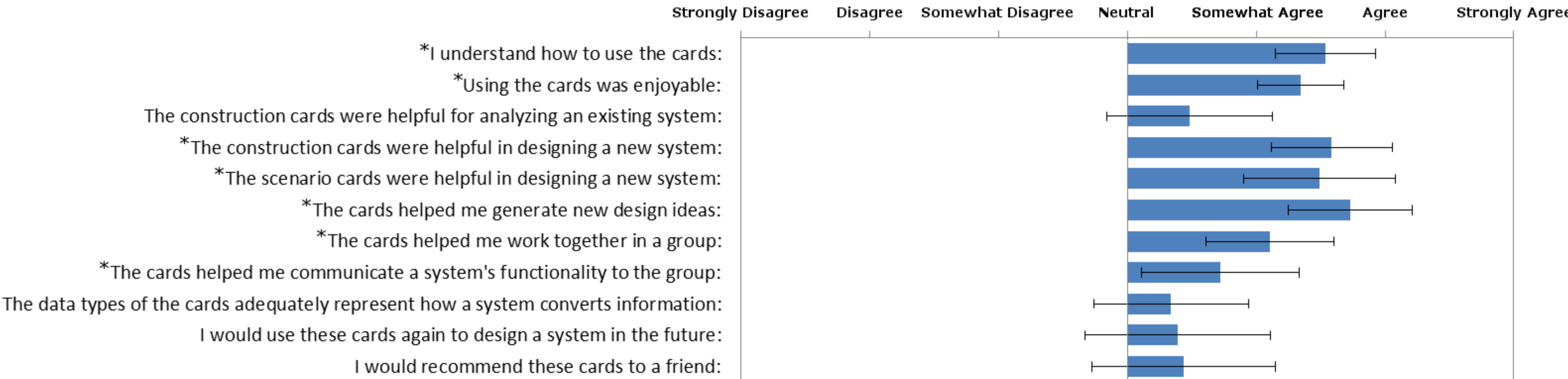
User Study

Positive results: students enjoyed them, (mostly) understood the design process

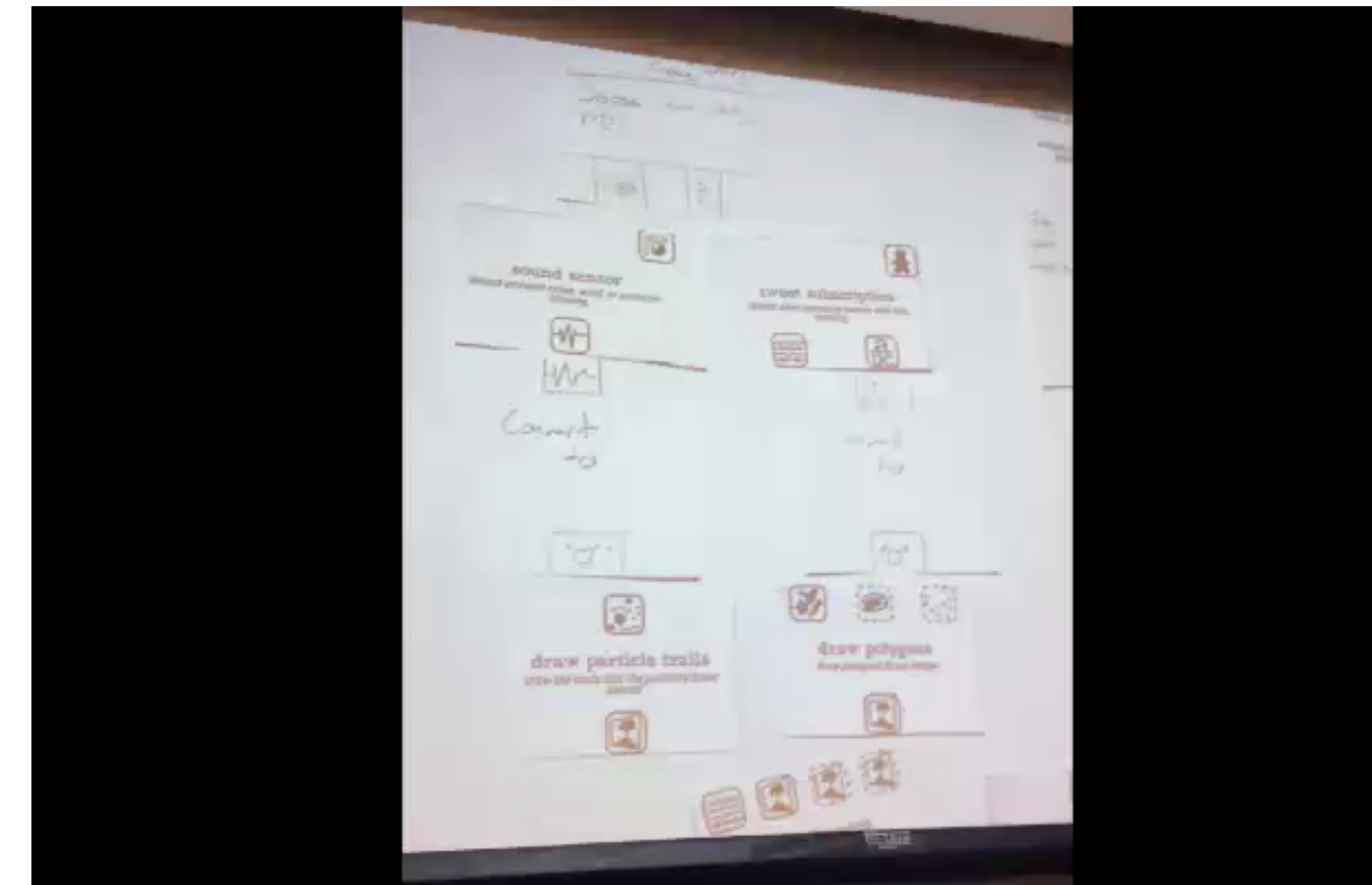
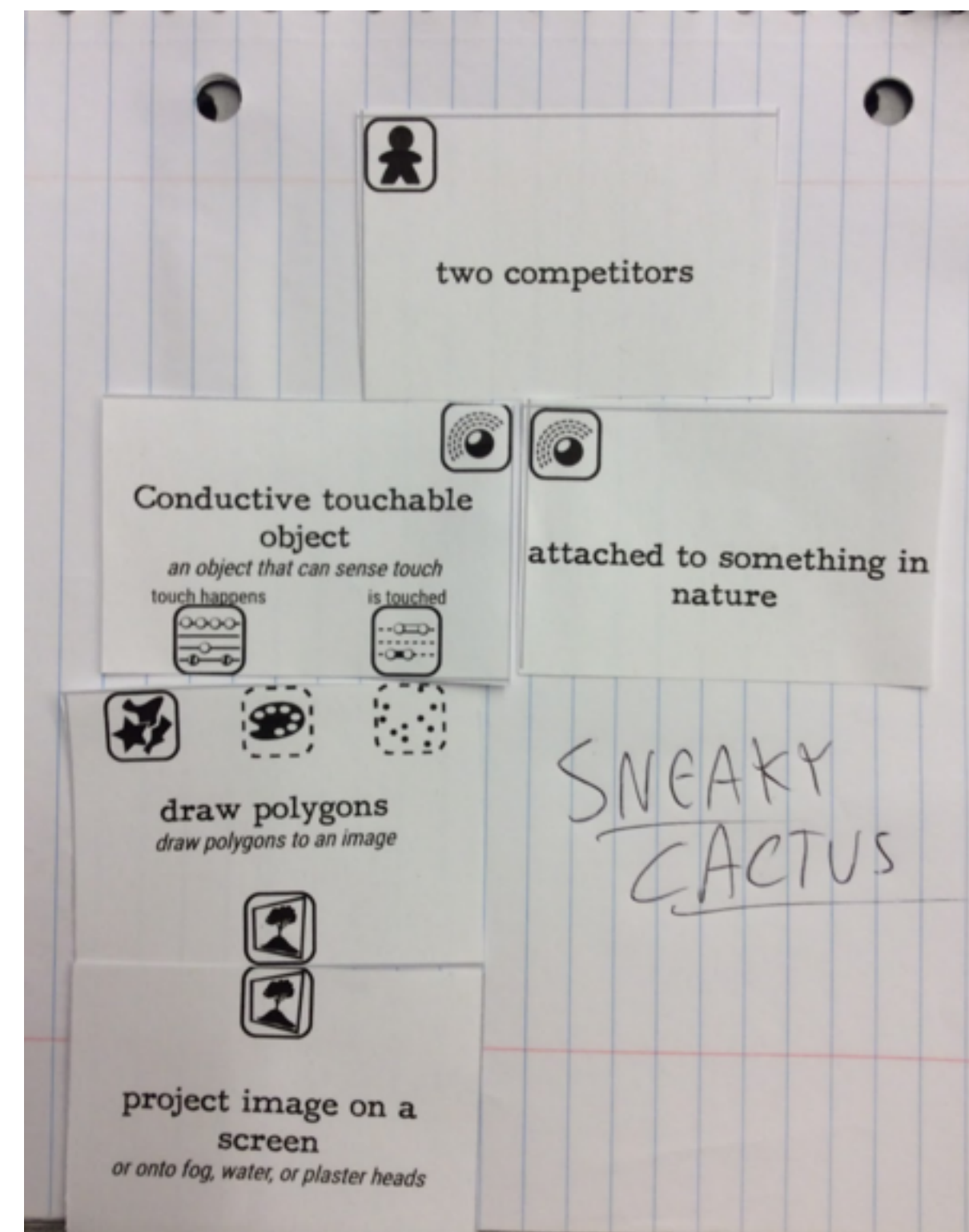
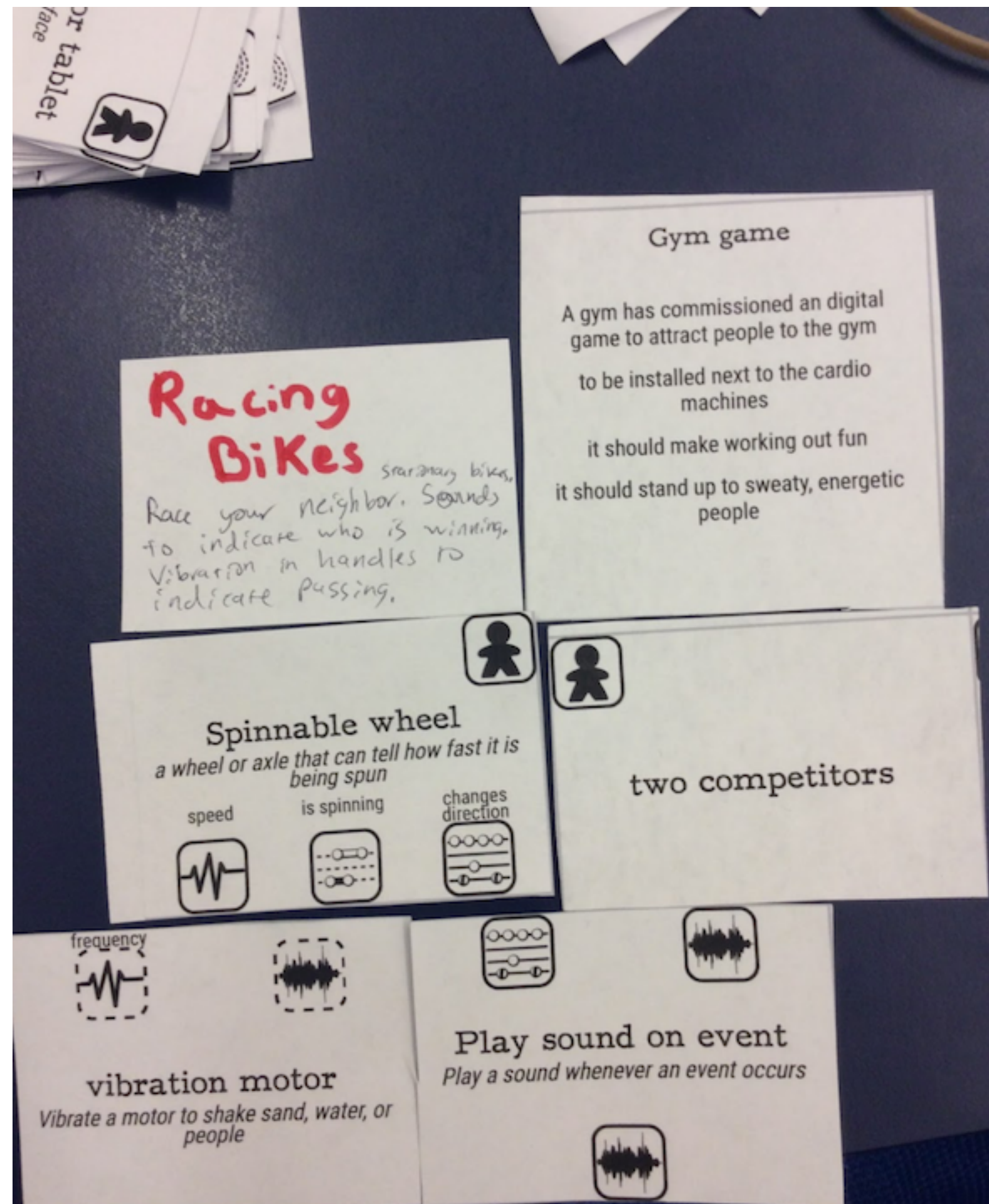
Hard to diagram an existing tool (lack of familiarity with tools? hard too find cards?)

Informally, student proposed projects were more creative (fewer “Mario-but-with-a-weird-button”)

Evaluation Results for Generomino Cards



User Study



Come play!

- www.galaxykate.com/generominos
- coming soon to Kickstarter?

