A C M R
Audiovisual Chain Map Reaction

comprehensive setup
idea & concept

A C M R
proof of concept

position of particles creates sound according to location on x / y / (z) axis coordinate system

- controls sine | saw wave oscillators
- controls granular synthesis buffer
  - -> this function changes the screen into an interface | musical instrument
    - -> this enables multifaceted exploration of buffer in the sense of particle position in order to explore it´s micro/ macro sounds to create layered soundscapes
      - -> movement of particles gets steered by genetic algorithms; i.e. swarm behaviours such as flocking, bonds etc. (randomise, damping, acceleration, boundary repulsion, boundary mirror, boundary warp, circular, velocity target, position target) and appointed neighbourhood behaviour
        - -> enables layering of swarms to create complex sound tones for composition of sound structures | soundscape

Proof of "concept"

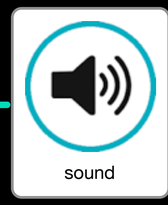
- there is no such thing as representative sound visualisation as it merely comes down to artistic choices regarding mapping etc. and dealing with the arbitrary
- create different pairs of concerts and their respective audiovisual print

particles | objects react in the physical (screen | projection) space

- FFT analysis
  - -> 2D - Processing
  - -> 3D - Unity

Form of Presentation

- *liveconcert*
  - downside: lengthy, redundant, obsolete (for the viewer | for protagonist - fun)
- *presentation in physical space* -> analog approach - every pair is located on an "island" represented by the concert being shown on a screen (could be old tv´s) and the analog audiovisual print gets put out by plotters
- *video wall* -> same approach as in physical space just all pairs get shown next to each other on a big screen -> difficulty - assign headphone selection to each pair by choice



levels of abstraction

- source input pieces -> buffer input -> dots position (steered by swarm behaviour) extracts micro & macro sounds out of the input pieces by controlling granular synthesis buffer
- development of gestures, vocabulary and structures to introduce a new orchestra
- reductionist approach -> each swarm gets reduced to a single musician -> aim to fuse loose ends to reunite orchestra

- exploration of different layers of visual abstraction (live coding| webGL, 3D, cinematographic, static and audio reactive backgrounds) + picture | sound print as secondary one
- sound picture print can be the final picture print of swarm orchestra