video tracker.md 10/15/2019

# Create a Video Tracker

Using one of the videos in the folder, use the cv.jit.blobs... or tap.colortrack objects to track the movement in the videos. From this movement, trigger and/or control sound events based on specified events. Perhaps it is the moving of an object from high to low, perhaps movement at a specific place in the video triggers a sound, perhaps a sound parameter changes when motion gets faster or slower. This reactive mapping is up to you.

#### Steps to completion:

- 1. Playback one of the files in jitter.
- 2. Create a luma version and use cv.jit.label to identify blobs
- 3. Choose one of the cv.jit.blobs objects to track perhaps the centroid, size, elongation, etc.
- 4. Create (or reuse) a sound producing element.
- 5. Map some paramater derived from the video onto the audio.

### extra challenges

- 4. When an object reaches the bottom of the screen (or any particular place on the screen) can you have it trigger a midi note with pitch based on the X Position?
- 5. With the traffic video, can you use the centroid positions to draw an image of the motion?

## Please make your own folder inside of Assignments/shadow\_walls/ and save your patches there.

## Bibliography & Techniques

Know the definitions of each of these techniques, and how to implement them. Many times there is a way to implement it on a matrix on the CPU as well as as a texture or geometry on the GPU. Both are useful.

- Computer Vision
- Blob tracking
- centroid
- · color tracking
- color variation or variance
- luma
- motion tracking