

AV PERFORMER

AV PERFORMER IS AN AUDIO AND VIDEO
LIVE PERFORMANCE APPLICATION

InVision Demo Link

https://invis.io/78COI5F6R#/244295054_AV_PERFORMER

Jeremy Slater

AV PERFORMER

PROJECT STATEMENT

AV PERFORMER is software that allows users to play music and video simultaneously in a performance. The interface is easy to use, intuitive, and flexible.

The problem, I suspect, is that doing a performance with two separate applications for audio and video is awkward and not intuitive. An application that does both simultaneously doesn't really exist. The goal is to create a program that allows performance with both audio and video in the same interface.

AV PERFORMER

FROM THE USER INTERVIEWS

INSIGHTS

Users want a single solution to perform with both audio and video effectively.

Users would like to have an interface that is fluid and easy to use.

Users would like more control, for example the ability to Save and Undo/Step Back.

“The hardest part was that I had a little snag every time I saved and closed down when I opened the session back up, it had lost where my video was routed from. So, I had to reload the videos every time...I think that there would be a simpler way to set it up. Max is great with its visual programming language that’s intuitive. But, yes, I think that it could be simpler. Also, it would be helpful to have an external MIDI controller to interface with that to make it easier to perform with.”

—**Eric**

“I like to combine both composed elements and add live layers in a sound performance. I like the idea of scoring/composing to a video, or adjusting a video to be played with composed sound, that said in live performance I'd rather be manipulating the sound live than the video. I'm fine with a video just playing back but the option of having pre-made video content to manipulate or that would be affected by the sound would be cool. The ability to fade the video in and out at certain points of the performance might be cool too.

—**Jenn**

“I do wish this had an Undo button, though”

“It's just hard to conceptualize an interface that could do both, or a programming team that's good at both...I think it's also a matter of what you'd want to do at once. Like, part of why I don't do audio is because doing video keeps my hands and eyes so busy, there's no way I could do both If I was doing simpler, more ambient video, then I could. But then there's less need for a single solution”

—**Daniel**

Primary Persona



Brian Johansen

Electronic Musician/Visualist

“I need a program that allows me to play music and mix video seamlessly.”

Bio and Demographics

Male, Age 36

Lower East Side, New York

Behaviors

He is a serious electronic musician who performs with music and video regularly at art galleries, alternative spaces, and music venues around the world.

Stories and Scenarios

He is looking for a way to perform with audio and video during live performances on his Macbook Pro.

Goals / Needs

He is looking for a program that allows him to perform music and control live video projections seamlessly. The way he has done it previously is too cumbersome and takes too much of his CPU's processing power.

Secondary Persona



Cassie Smith

Laptop DJ

“I want to add live visuals to my DJ sets easily with one interface”

Bio and Demographics

Female, Age 30
Williamsburg, Brooklyn

Behaviors

She has a regular DJ gig on the weekends in the East Village. She sometimes works with a VJ, but would like to do the music and video herself. Doing both would make her more money when she plays.

Stories and Scenarios

She wants to add live visuals to her DJ sets easily with one interface on her Dell laptop.

Goals / Needs

She is looking for a way to DJ and do live visuals simultaneously. She would like to have a single interface to accomplish this. She's tried to use DJ and VJ software at the same time, but finds this to be too overwhelming. It's difficult to do both at the same time and have everything in synch.

AV PERFORMER

Who is your target audience?

Musicians, DJs, Live Visualists (VJs), Video Artists, Audio Artists

What pain points are being addressed?

Ease of use, ability to Save their projects and the ability to Undo/Step Back.

What is your overall objective for the project?

To create software that allows users to play audio and video simultaneously with ease.
This is based on my original problem statement and as a result of user interviews.

What is your MVP (Minimum Viable Product)?

A/V software that can play audio and video simultaneously.

How will this differentiate you from your competitors?

The software I am proposing doesn't really exist. The competitors software is either way to complicated focused mostly on video with little audio control or overly simple and not really integrated with the audio controls and requires expensive audio software.

COMPETITIVE ANALYSIS

Market Positioning

Product	Live Video Tools	RokVid	VDMX 5	Resolume
Business Model	Purchase Only, No Demo	Demo/Purchase	Demo/Purchase	Demo/Purchase
Target Audience	VJs, Musicians	VJs, Musicians	VJs	VJs

Feature Comparison

Product	Live Video Tools	RokVid	VDMX 5	Resolume
Video and Audio	Video and Audio Interactive	Video and Audio Interactive	Audio Reactive Only	Audio Reactive Only
Integration with Ableton Live	Yes, within the Ableton interface	Yes, within the Ableton interface	Yes, but separate software	Yes, but separate software

Heuristic Evaluation - Quantitative

Product	Live Video Tools	RokVid	VDMX 5	Resolume
Audio Control	10	10	5	5
Video Control	5	7	10	10
Complexity	5	6	10	8

Heuristic Evaluation - Qualitative

Product	Live Video Tools	RokVid	VDMX 5	Resolume
Audio Control	Integrated in and Ableton Audio Software	Integrated in and Ableton Audio Software	Limited	Limited
Video Control	Basic	Slightly more robust	Very robust	Very robust
Complexity	Fairly simple interface	Fairly simple interface	Very complicated interface	Complicated interface

RESOLUME

Resolume Avenue - Shop Footage (768 x 576)

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12
ACC_Fotc_003	ACC_Fotc_006	ACC_Fotc_009	ACC_Fotc_012	ACC_Fotc_015	ACC_Fotc_018	ACC_Fotc_021	ACC_Fotc_024				
ACC_Fotc_002	ACC_Fotc_005	ACC_Fotc_008	ACC_Fotc_011	ACC_Fotc_014	ACC_Fotc_017	ACC_Fotc_020	ACC_Fotc_023				
ACC_Fotc_001	ACC_Fotc_004	ACC_Fotc_007	ACC_Fotc_010	ACC_Fotc_013	ACC_Fotc_016	ACC_Fotc_019	ACC_Fotc_022	ACC_Fotc_025			

layer 3
layer 2
layer 1

ACC_Fotc_010

Output Monitor

Preview Monitor
Fps: 59.92

Composition: Shop Footage (768 x 576)
Clip: ACC_Fotc_010

Video Effects (1): Cube Tiles (Closeup)

Transform: Rotate X 0.60, Rotate Y 0.60, Rotate Z 0.50, Num Cubes 0.00, Black BG, Fade Out 1.00, Scale 100..., Rotate X 0.00°

Transport: ACC_Fotc_010.mov, Transform: Opacity 1.00, Width 768.00, Height 576.00, Scale 100..., Position X 0, Position Y 0, Rotate X 0.00°, Rotate Y 0.00°, Rotate Z 0.00°

Effects: Video | FFGL, Audio | VST

Effects List: Bright Contrast, Circles, Colorize, Pink, Colour pass, Cube Tiles (Closeup, Complex, Inside Cube, Rotation, Slow Rotate, Tiles), Delay RGB, Displace, Distortion (Dr. Bibber, Edge Detection)

15:09 Resolume Avenue 4.0.0 Beta

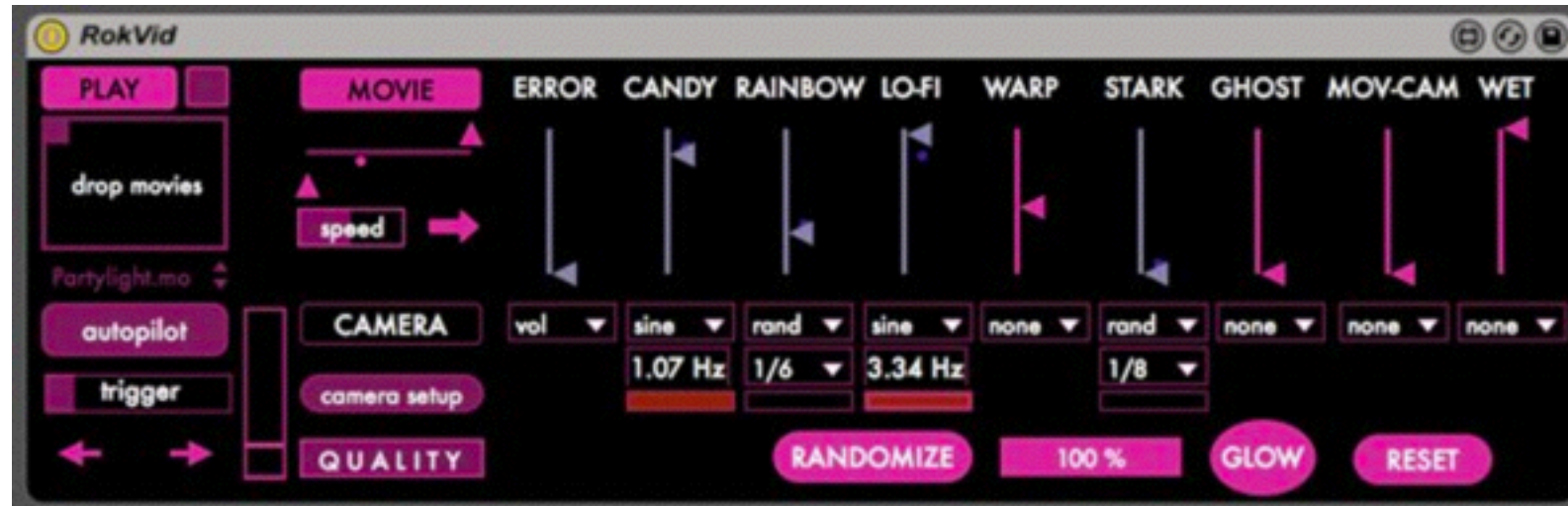
VDMX

The screenshot displays the VDMX software interface, a video mixing and compositing application. The top menu bar includes "VDMX5", "File", "Edit", "Workspace", "Templates", "Window", and "Help". The system tray on the right shows the date and time as "Thu Sep 20 4:43 PM" and a battery level of 97%.

The main interface is divided into several panels:

- Timeline:** Located at the top, it shows a multi-track timeline with tracks for "3dlight_bat_test", "Rate", "Frames", and "Scratch". The "Rate" track is set to 18.75 frames.
- Composition Windows:** Several preview windows are visible, including "Preview 1", "Preview 2", "Preview 3", "Preview 5", and "Canvas/Main Output controls". Each window shows a different view of the video content being processed.
- Asset Browser:** On the left, there is a list of assets including "CT#1", "LC", "PAZ", "Miss Butt", "CAVE_JAZZ", "future", "sky", "Syphony", "Mask", "sweetLIME", and "MEXMASKS". Below this list is a grid of asset thumbnails.
- Effect Controls:** The bottom half of the interface is filled with various effect control panels, such as "UI Inspector", "Canvas/Main Output FX", "TCM 1", "Clock", "C Src: plants5_lightflares", "C Composition", "C FX", and "LFO 3". These panels allow for fine-tuning of video effects and transitions.
- Master Fader:** A vertical "MASTER FADER" control is located on the right side of the main preview area.

ROKVID

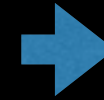


LIVE VIDEO TOOLS



FEATURE PRIORITIZATION LIST

Moscow Method (M must Have, S should Have, C could Have, W won't Have)

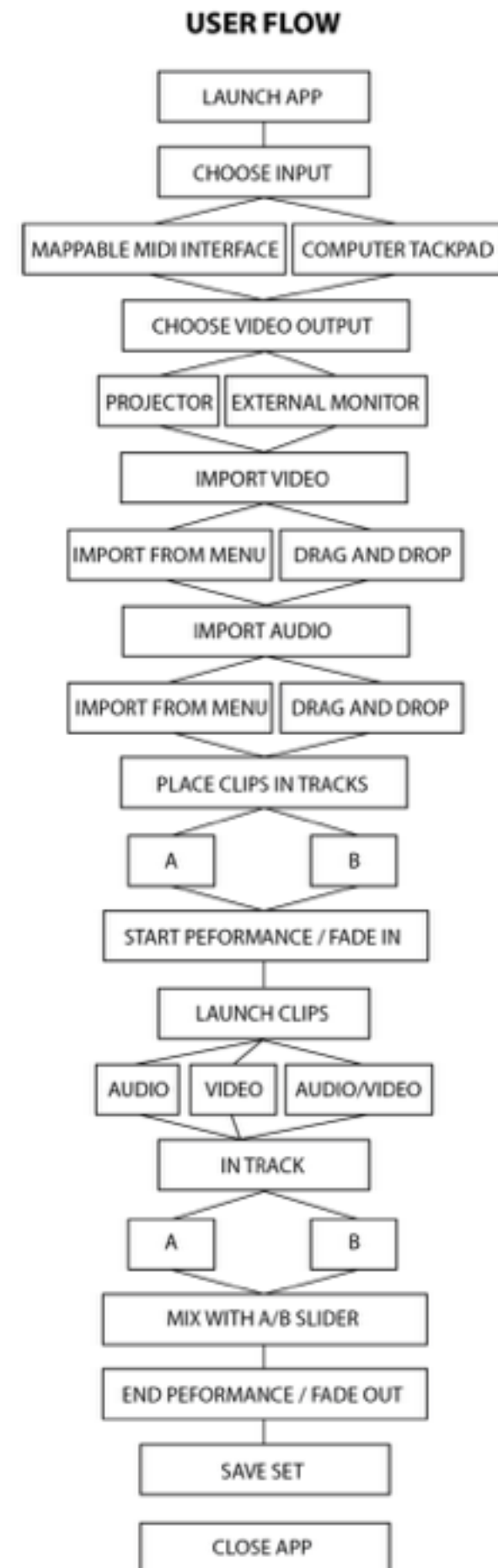
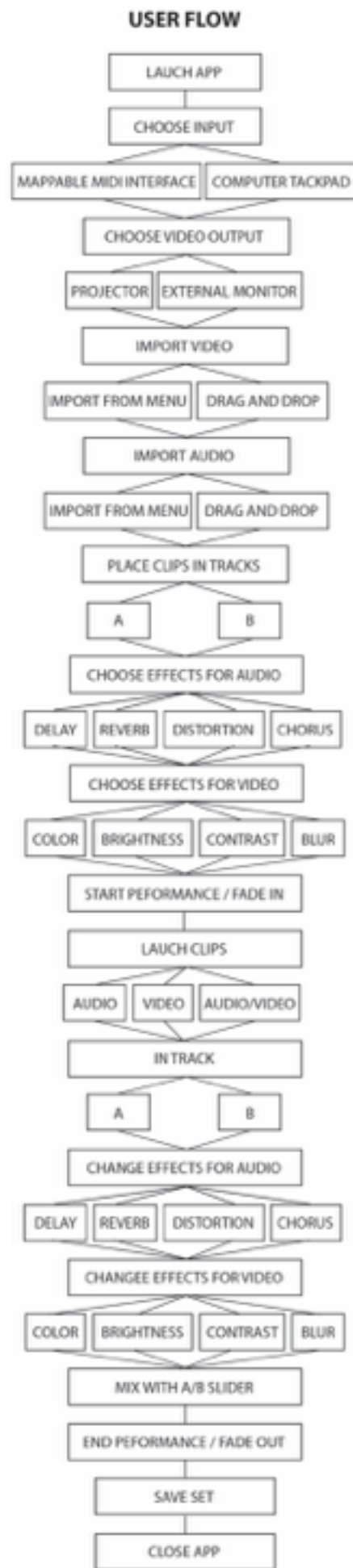


Launch

Must Have	Should Have	Could Have	Won't Have
Import Audio Clip (From Import Menu, Drag and Drop)	Create Media Bin	Ability to add more audio and video tracks.	Effects (Delay, Color, Etc.) Ability to Record
Import Video Clip (From Import Menu, Drag and Drop)	Fade An/Out All (Master)		
Choose Input (MIDI Interface, Mouse or Track Pad)	Change Audio/Video Levels All (Master)		
Export Video to Projector or External Monitor			
Play Audio Clip			
Play Video Clip			
Play Audio/Video Clip			
Fade In			
Loop Audio			
Loop Video			
Change Audio Level			
Change Video Level			
Switch Audio Clip			
Switch Video Clip			
Undo			
Change Audio and Video Level Simultaneously			
Mix Between Audio and Video Clips (A-B Slider)			
Fade Out			
Save Project			

- Import Audio Clip (From Import Menu, Drag and Drop)
- Import Video Clip (From Import Menu, Drag and Drop)
- Choose Input (MIDI Interface, Mouse or Track Pad)
- Export Video to Projector or External Monitor
- Play Audio Clip
- Play Video Clip
- Play Audio/Video Clip
- Fade In
- Loop Audio
- Loop Video
- Change Audio Level
- Change Video Level
- Switch Audio Clip
- Switch Video Clip
- Undo
- Change Audio and Video Level Simultaneously
- Mix Between Audio and Video Clips (A-B Slider)
- Fade Out
- Save Project
- Close App

USER FLOWS



CARD SORT RESULTS

Participant 1
• prev next •

Details Card Sort Include

Effects 13

- FADE IN ALL
- FADE OUT ALL
- SWITCH AUDIO 1
- SWITCH AUDIO 2
- LOOP VIDEO 1
- LOOP VIDEO 2
- FADE IN AUDIO 1
- FADE OUT AUDIO 1
- LOOP AUDIO 1
- FADE IN AUDIO 2
- FADE OUT AUDIO 2
- LOOP AUDIO 2

Level 4

- CHANGE VIDEO LEVEL 1
- CHANGE VIDEO LEVEL 2
- CHANGE AUDIO LEVEL 1
- CHANGE AUDIO LEVEL 2

Media Bin 2

- CREATE VIDEO BIN
- CREATE AUDIO BIN

Menu 5

- SAVE PROJECT
- SEND VIDEO TO PROJECTOR/MONITOR
- UNDO/STEP BACK
- IMPORT VIDEO
- IMPORT AUDIO

Mixer 3

- A/B SLIDER
- SWITCH VIDEO 1
- SWITCH VIDEO 2

Play list 1 2

- PLAY AUDIO 1
- PLAY VIDEO 1

Play list 2 2

- PLAY VIDEO 2
- PLAY AUDIO 2

Participant 3
• prev next •

Details Questionnaire Card Sort Include

Audio Effect 3

- Loop Audio
- Switch Audio Clip
- Change Audio Level

Menu 5

- Save Project
- Undo/Step Back
- Import Video Clip
- Import Audio Clip
- Export Video to Projector

Play 2

- Play Video Clip
- Play Audio Clip

Slider 1

- A/B Slider

Video Effect 3

- Fade In
- Fade Out
- Loop Video
- Change Video Level
- Switch Video Clip

Participant 5
• prev next •

Details Card Sort Include

AUDIO/VIDEO IMPORT 4

- CREATE AUDIO BIN
- CREATE VIDEO BIN
- IMPORT AUDIO
- IMPORT VIDEO

CONTROL PANEL 3

- SEND VIDEO TO PROJECTOR/MONITOR
- SAVE PROJECT
- UNDO/STEP BACK

A/B SLIDER 3

- A/B SLIDER
- FADE IN ALL
- FADE OUT ALL

AUDIO 1 CONTROLS 5

- PLAY AUDIO 1
- FADE IN AUDIO 1
- LOOP AUDIO 1
- SWITCH AUDIO 1
- CHANGE AUDIO LEVEL 1
- FADE OUT AUDIO 1

AUDIO 2 CONTROLS 6

- PLAY AUDIO 2
- FADE IN AUDIO 2
- LOOP AUDIO 2
- SWITCH AUDIO 2
- CHANGE AUDIO LEVEL 2
- FADE OUT AUDIO 2

VIDEO 1 CONTROLS 4

- PLAY VIDEO 1
- LOOP VIDEO 1
- CHANGE VIDEO LEVEL 1
- SWITCH VIDEO 1

VIDEO 2 CONTROLS 4

- PLAY VIDEO 2
- LOOP VIDEO 2
- CHANGE VIDEO LEVEL 2
- SWITCH VIDEO 2

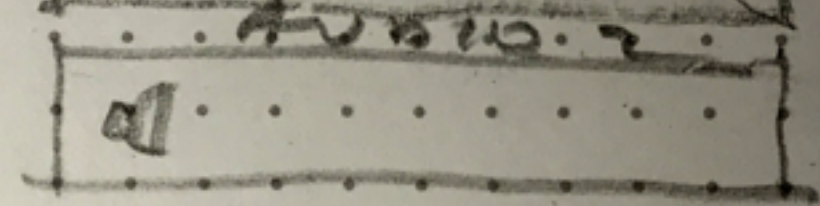
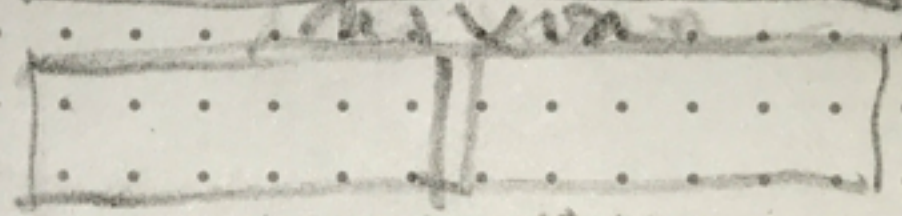
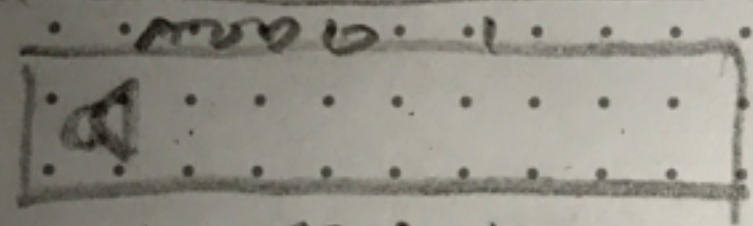
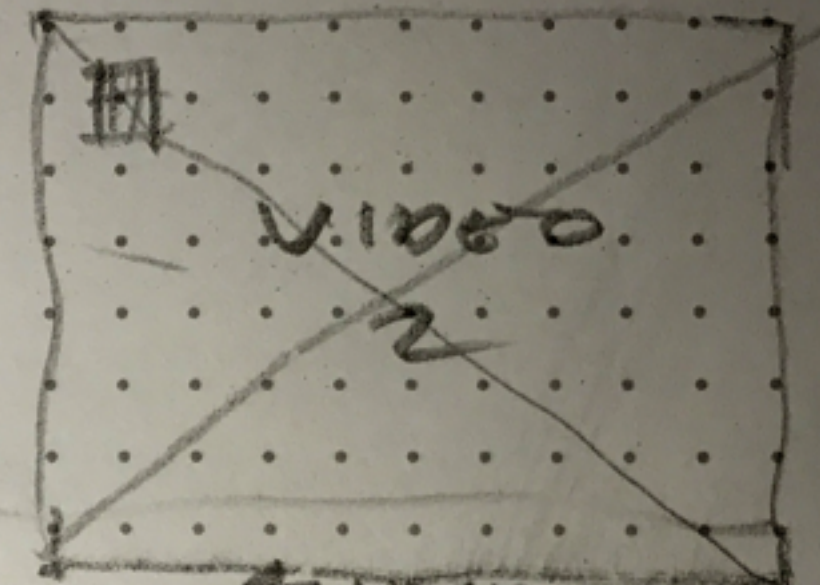
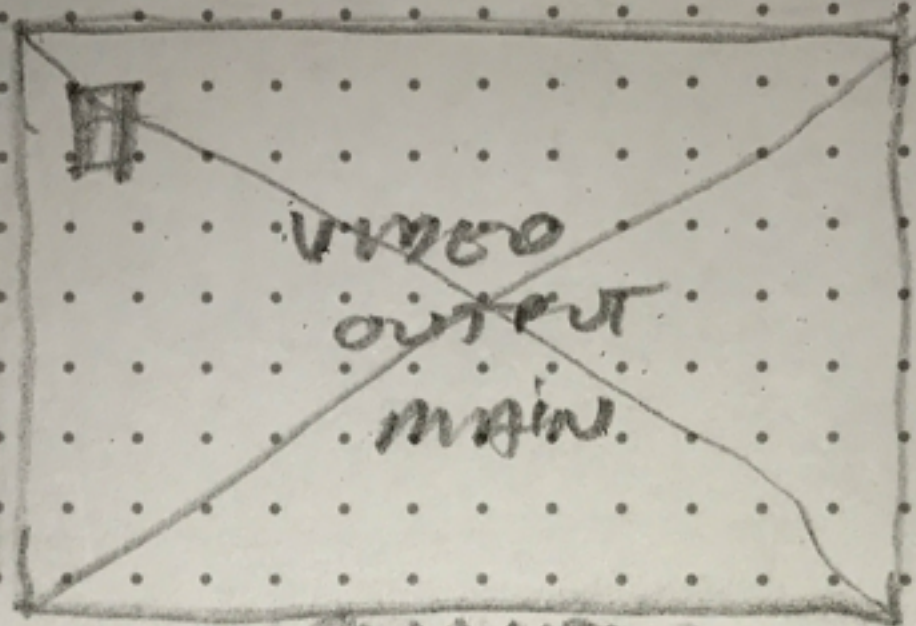
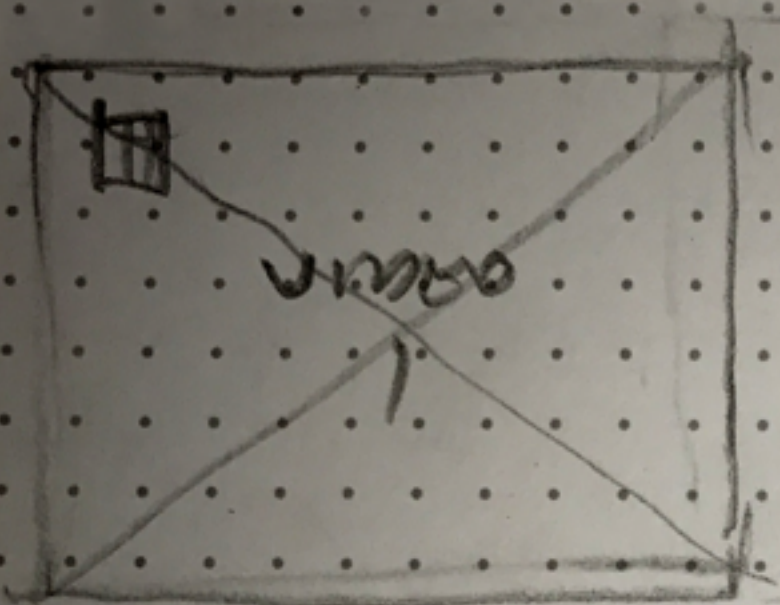
SITE MAP

L.A.U.N.C.H.

CONTINUOUS DANCE	AUDIO VIDEO INPUT	VIN CONTROLS	AUDIO CONTROLS	A/B SCREEN	VIN 2 CONTROLS	A/B 2 CONTROLS
SEND VIDEO TO PROJECTOR MONTH	CONTROL AUDIO B/W DANCE VIDEO BIN	PLAY VIN LOOP VIDEO CHANGE VIDEO	PLAY AUDIO PAGE IN LOOP AUDIO SWITCH AUDIO PAGE OUT AUDIO	A/B SCREEN SUMMER PAGE IN ALL PAGE OUT ALL	PLAY VIDEO LOOP VIDEO CHANGE COVERS 2 SWITCH VIDEO 2	PLAY AUDIO PAGE IN LOOP AUDIO SWITCH AUDIO CHANGE VIDEO 2 PAGE OUT AUDIO 2

INTERFACE

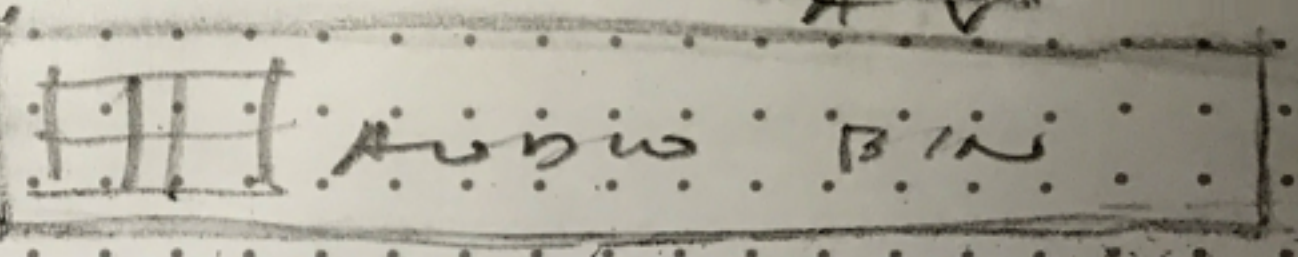
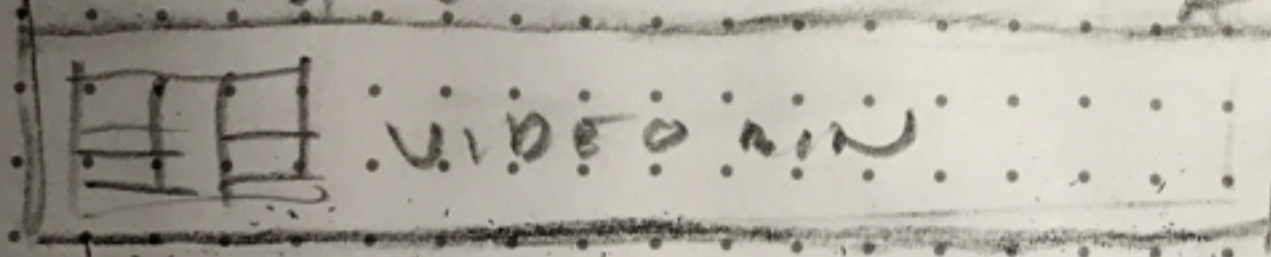
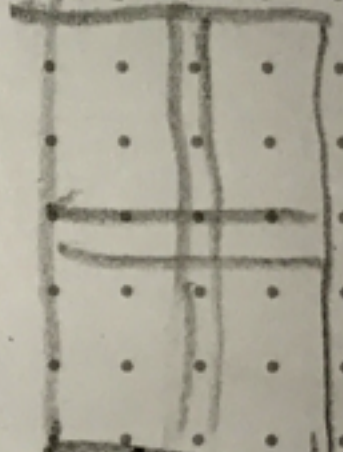
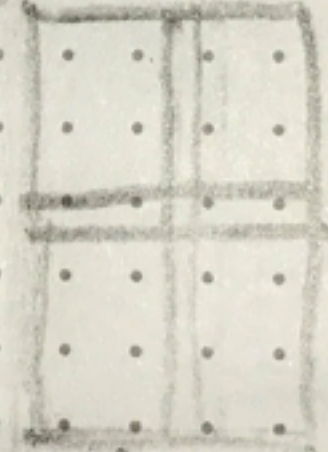
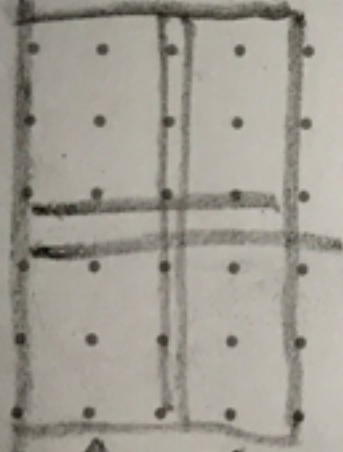
FILE . IMPORT . OUTPUT



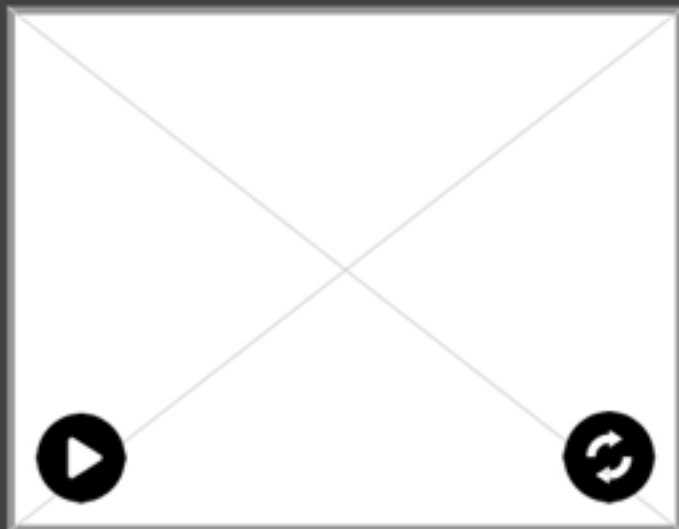
LEVELS 1

LEVELS - ALL

LEVELS 2



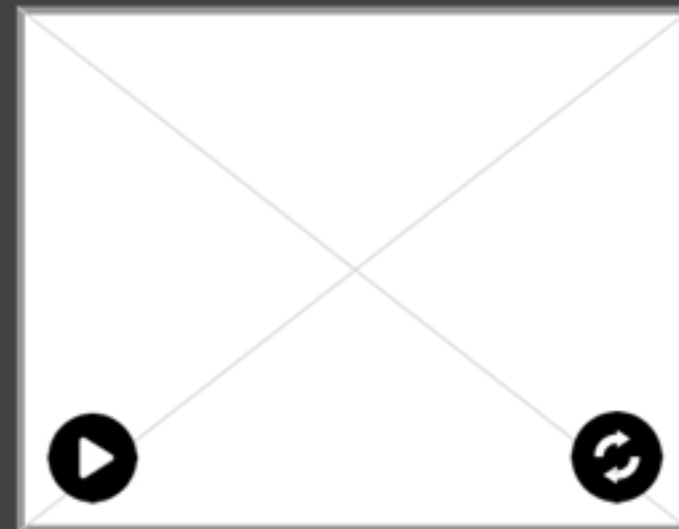
VIDEO - 1



MAIN - OUTPUT



VIDEO - 2



AUDIO - 1



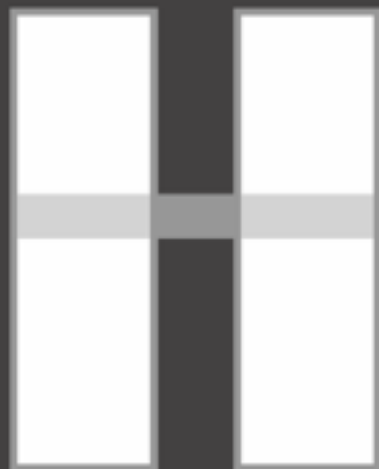
MIXER



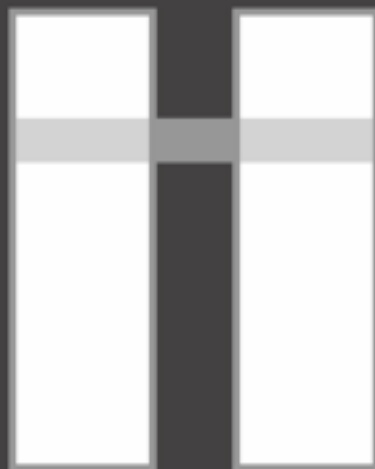
AUDIO - 2



LEVELS - 1



MAIN - LEVELS



LEVELS - 2



AUDIO

VIDEO

AUDIO

VIDEO

AUDIO

VIDEO



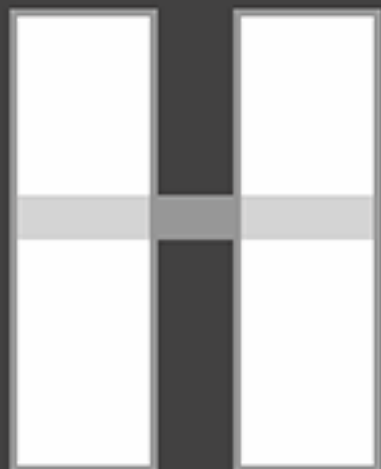
VIDEO - 1



AUDIO - 1



LEVELS - 1



AUDIO

VIDEO

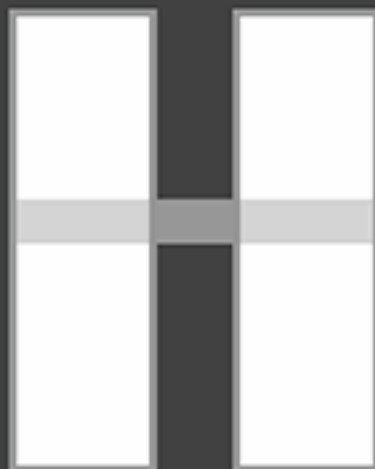
MAIN - OUTPUT



MIXER



MAIN - LEVELS



AUDIO

VIDEO

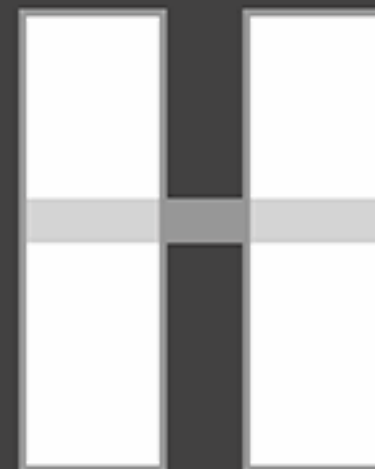
VIDEO - 2



AUDIO - 2



LEVELS - 2



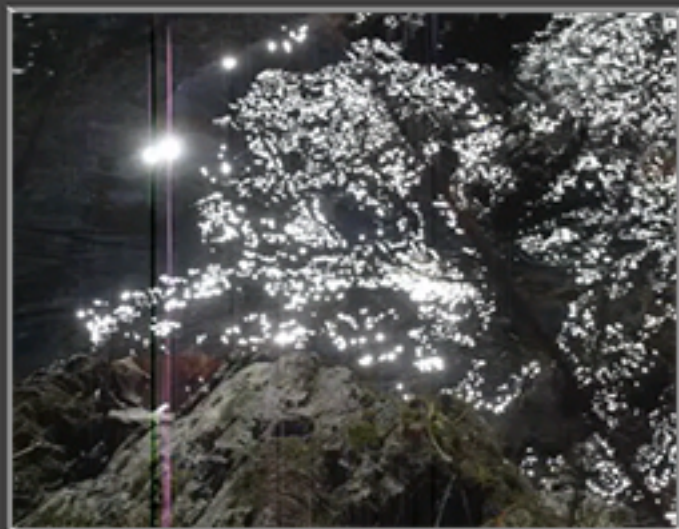
AUDIO

VIDEO

VIDEO

AUDIO

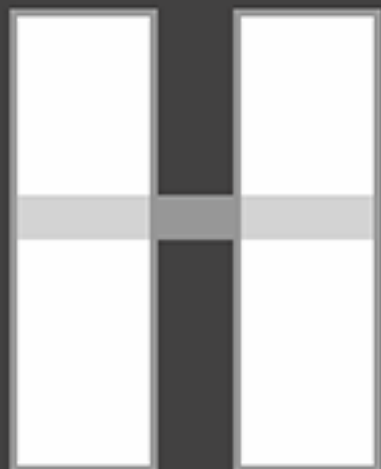
VIDEO - 1



AUDIO - 1



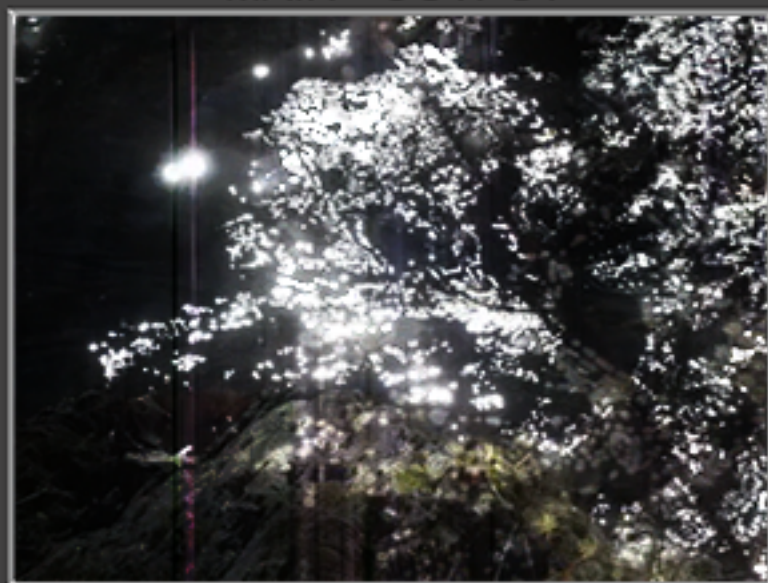
LEVELS - 1



AUDIO

VIDEO

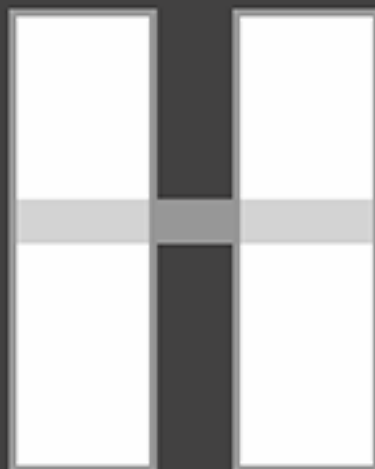
MAIN - OUTPUT



MIXER



MAIN - LEVELS



AUDIO

VIDEO

VIDEO - 2



AUDIO - 2



LEVELS - 2



AUDIO

VIDEO



VIDEO



AUDIO



VIDEO - 1



AUDIO - 1



LEVELS - 1



AUDIO VIDEO

MAIN - OUTPUT



MIXER



MAIN - LEVELS



AUDIO VIDEO

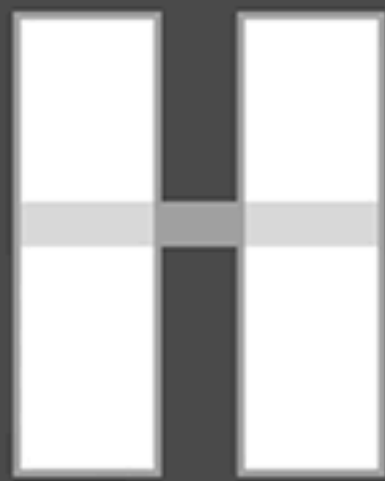
VIDEO - 2



AUDIO - 2



LEVELS - 2



AUDIO VIDEO

VIDEO

AUDIO

NEXT STEPS

As a result of user testing, I added some features that users suggested. Users were also interested in more features like being able to scrub/scratch, sample, and to be able to add video and audio effects.

Continue to iterate and test to create a more robust program.

Hire a team of programmers to realize the software.

THANK YOU!

InVision Demo Link

<https://invis.io/78COI5F6R#/244295054> AV PERFORMER

Jeremy Slater