

Stay off the tree please.

Theme: Touching space

Project Type: Projection & Audio

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CONCEPT

To utilize interactive software to develop a responsive visual piece that will bring attention to human's effect in changing the landscape from one that is natural to one that everything is manufactured. Through the attributes of movements and the presence of the audience in front of the camera, the quantitative data is processed to generate a responsive video output.

Our visual output includes a dynamically growing tree on a static city background. We chose to engage time and weight as our motion of exploration. Two efforts of motion considered are slashing vs floating and we also played with presence and space.





THEORIES AND PHILISOPHIES

The reason for our approach to show a tree dying when the participants move is due to our belief that people associate what they see to their actions. This helped us look into associative learning which is “the ability of an animal to connect a previously irrelevant stimulus with a particular response, occurs mainly through the process of conditioning, in which “reinforcement crystallizes new behaviour patterns”. ~ Britannica Academic Edition



SIMILAR APPROACH

Scott Snibbe's Blow Up, <http://www.snibbe.com/projects/interactive/blowup>



Snibbes' Project **Blow Up** records, amplifies, and projects human breath into a room-sized field of wind. A small scale electronic impeller as the input device is electronically linked to the large wall of electric fans. The tabletop impellers are spatially and temporally synchronized to the fans in the wall. When a "sender" blows into the first device, "receivers" experience the magnified breathing patterns over their entire bodies. When he stops blowing, the wall continues to play back the most recent breathing pattern, captured in an amplified loop, until someone inspires a new pattern.

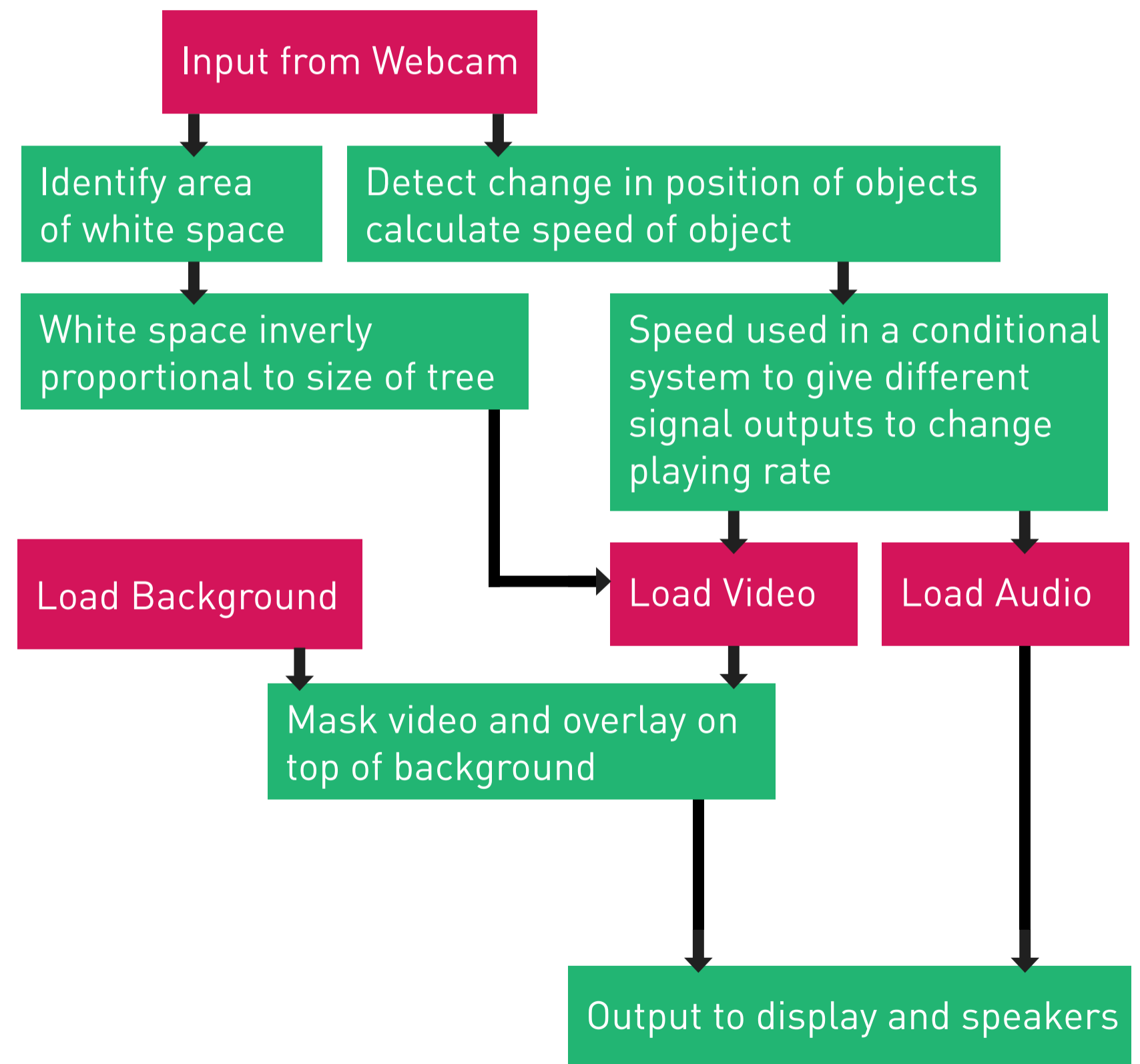


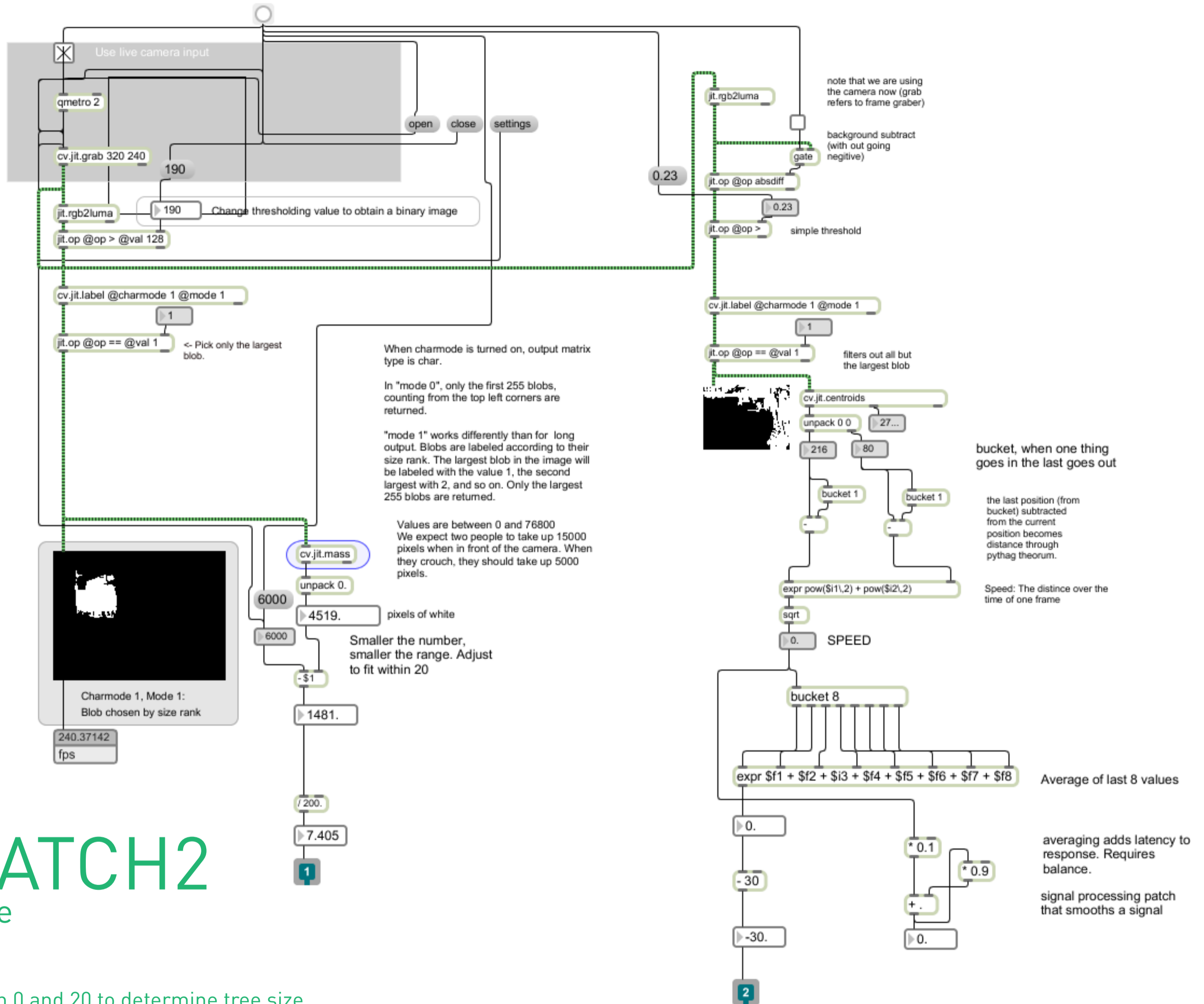
"In the physical world, we become aware of our bodies through transactions with other phenomena: we hear our voices via the vibration of air, we see our faces via the bending of light."

FLOW CHART

The more sudden the movements people make in front of the camera, the quicker the tree reverses its growth (meant to represent death). When there is slow or no movement detected, the tree steadily grows back over time. Chain saw sounds are played as the tree reverses growth helping the audience understand what is happening, acts as an added response and may even suggest to the audience what motions are engaged.

The second system detects the presence and area taken up by participants over time. The more space the people take, the smaller the tree and vice versa. When there is little space taken up, through either fewer people or if people attempt to take up less space by gathering together, or crouching down, the tree has room to grow and so is large on screen. When there are many participants, the tree shrinks proportional to their area taken up. Also the smaller the tree, the larger the view of the city and the louder the city sounds.





SUB-PATCH2

Detecting space & Movements

Input: camera

Output 1: Value between 0 and 20 to determine tree size

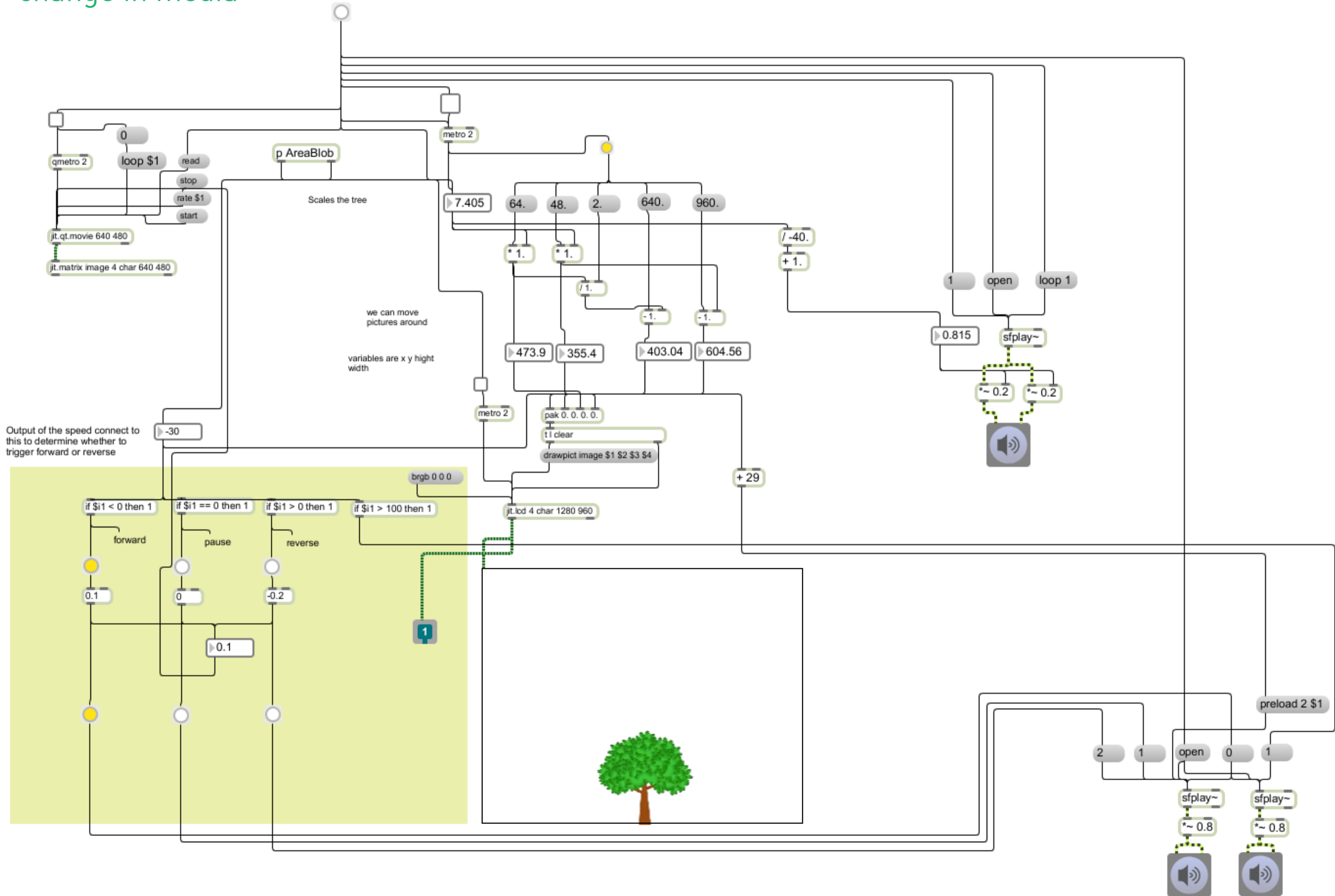
Output 2: Positive and Negative values to control the rate of growth or death of tree (rate of video)

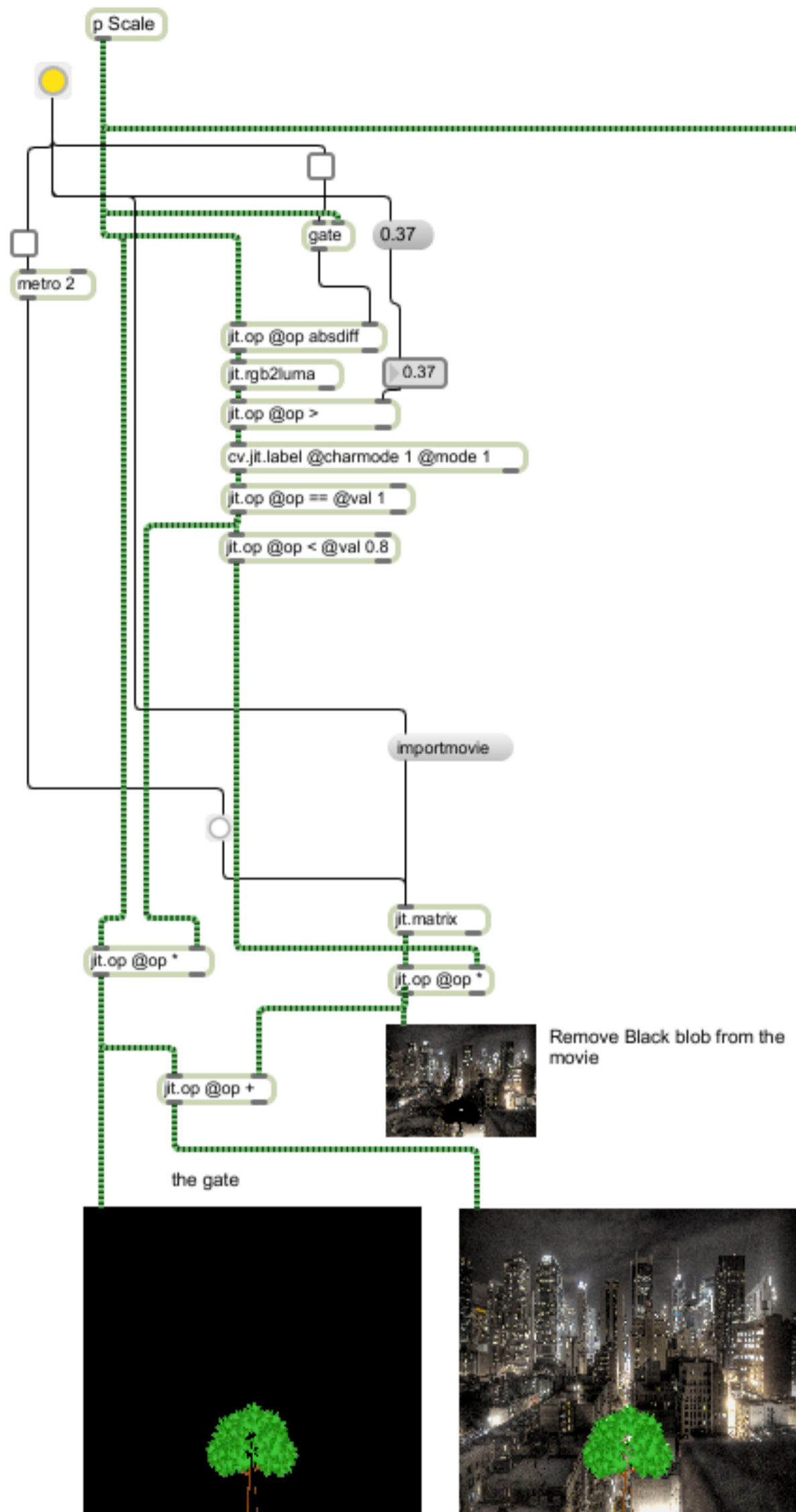
SUB-PATCH 1

Input: AreaBlob

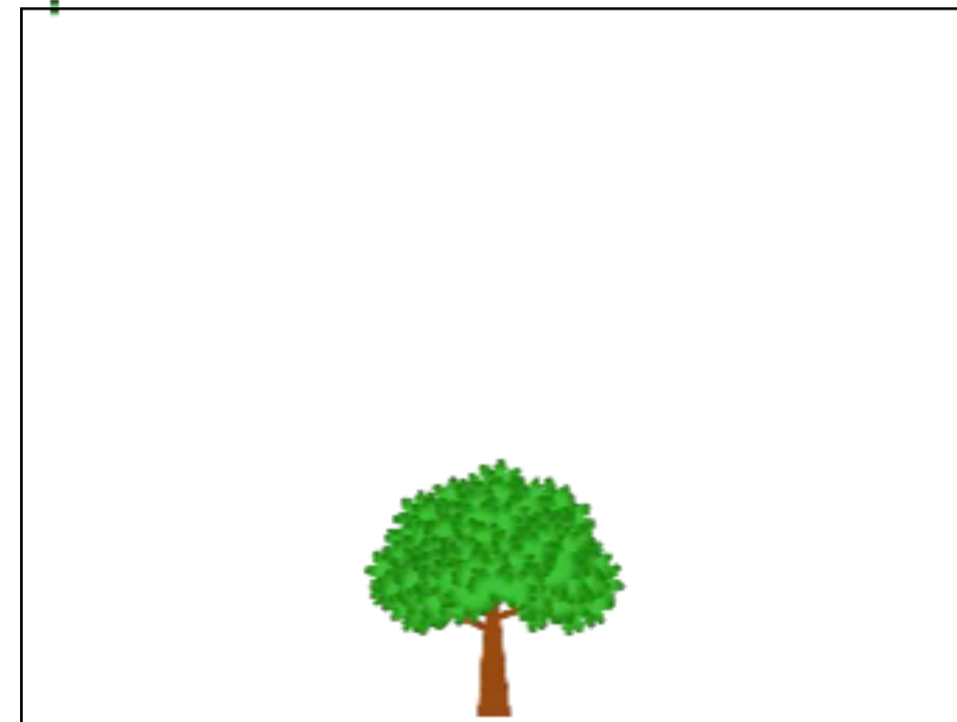
Output: Video Media with dynamic scaling and dynamic rate of play

Conversion to trigger change in media





Final Step: Mask the Video to a Background



MAIN PATCH 1

Input: Digital Media
Output: Video Media

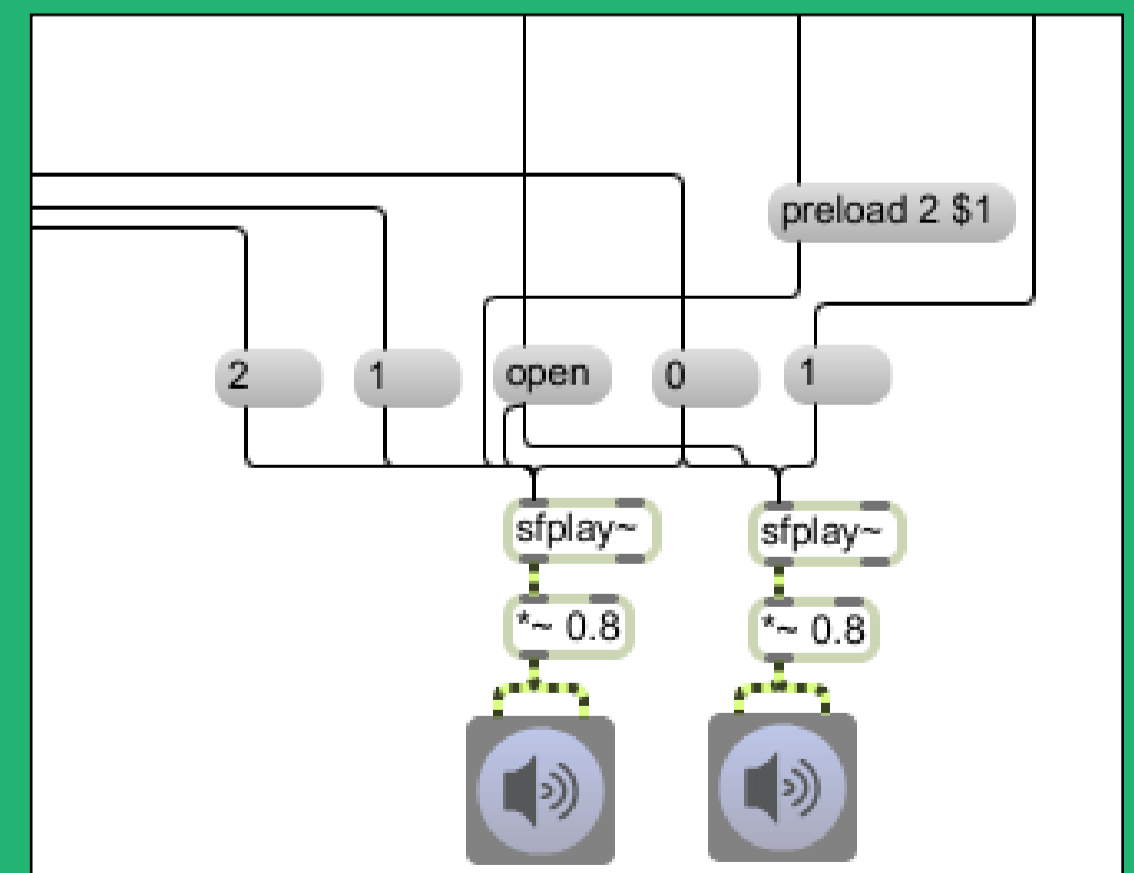
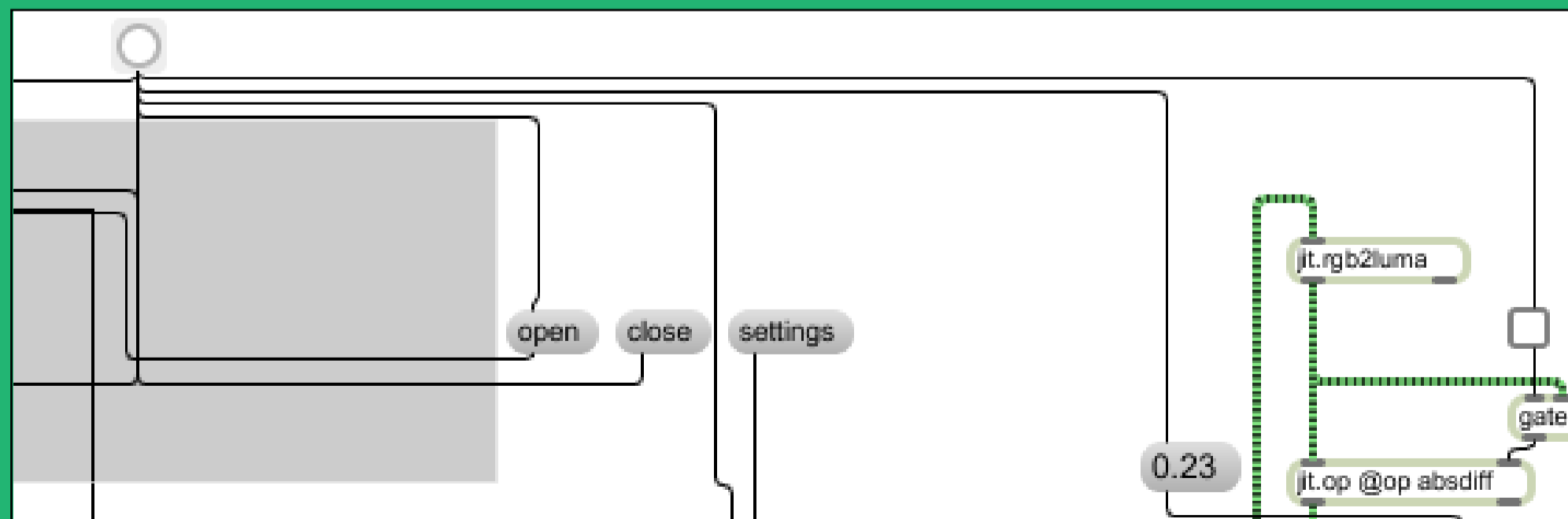
Masking and Background

FIRST HAND EXPERIENCE

With our first working patch, we were able to see both activities having effect on the video. The major problem was that using overlaying of the media, the tree becomes hard to see when over a dark background. Also we found it quite tedious having to open and click all the buttons and change the values manually each time. Hence we decided to create one button for each patch and sub patch to connect all the toggles and activate them with one click. This reduced the setup time from a minute to half a minute.

We wanted to test not only the sensitivity of the camera but also the interactivity and the response of the system. Initially we did not have any sounds, but decided to incorporate it due to the delay of the visual effects on the tree. With sound, one could make better connections between their bodily movements to the video. The sound is an added feedback for the people. Furthermore, again people draw connections of their movements to the chainsaw sounds to destruction.

Reflection for change. If we were to do this again. We think that we can draw a bigger connection of the paper wastage directly to the death of trees.



REFERENCES

CYCLING '74's MAX/MSP & JITTER RESOURCES

Helpful Sources and Patches

Aaron Levisohn & Gregory Corness: Patches on sakai:

<http://sakai.sfu.ca/portal/site/6c0a14e3-afbf-4845-9892-3a8ffd41f966>

Jitter Helpful Links for Videos

<http://www.cycling74.com/docs/max5/tutorials/jit-tut/jitindex.html>

Tutorial 4: Controlling Movie Playback:

<http://www.cycling74.com/docs/max5/tutorials/jit-tut/jitterchapter04.html>

Tutorial 14: Matrix Positioning (possibly control where to put the tree?)

<http://www.cycling74.com/docs/max5/tutorials/jit-tut/jitterchapter14.html>

Tutorial 38: Basic Performance Setup

<http://www.cycling74.com/docs/max5/tutorials/jit-tut/jitterchapter38.html>

Tutorial 22: Working With Video Output Components

<http://www.cycling74.com/docs/max5/tutorials/jit-tut/jitterchapter14.html>

<http://www.cycling74.com/docs/max5/tutorials/jit-tut/jitterchapter04.html>

VIDEO AND MUSIC REFERENCES

Basics of Video

<http://music.arts.uci.edu/dobrian/IAP2004/JitterExamples.htm>

Growing Tree: <http://www.youtube.com/watch?v=Nd7kQWlrB74>

Busy City: http://www.ezwebrus.com/wallpapers/city/busy_night_city.jpg

<http://www.youtube.com/watch?v=Nd7kQWlrB74&NR=1>

Free Sound Project:

Busy Street: <http://www.freesound.org/samplesViewSingle.php?id=36734>

Chainsaw start, branches falling and engine cut: <http://www.freesound.org/samplesViewSingle.php?id=50667>