

PAT 451 / 551

INTERACTIVE

MEDIA

DESIGN I

COURSE OVERVIEW

**WHY AM I
HERE?**

DE-MATERIALIZATION OF MUSIC CREATION



AFTER 500 PLAYS OUR HIGH FIDELITY
TAPE STILL DELIVERS HIGH FIDELITY.

If your old favorites don't sound as good as they used to, the problem could be your recording tape.

Some tapes show their age more than others. And when a tape ages prematurely, the music on it does too.

What can happen is, the oxide particles that are bound onto tape loosen and fall off, taking some of your music with them.

At Maxell, we've developed a binding process that helps to prevent this. When oxide particles are bound onto our tape, they stay put. And so does your music.

So even after a Maxell recording is 500 plays old, you'll swear it's not a play over five.



IT'S WORTH IT.

Maxell Corporation of America, 40 Old Mine Road, Morris Plains, N.J. ©1974

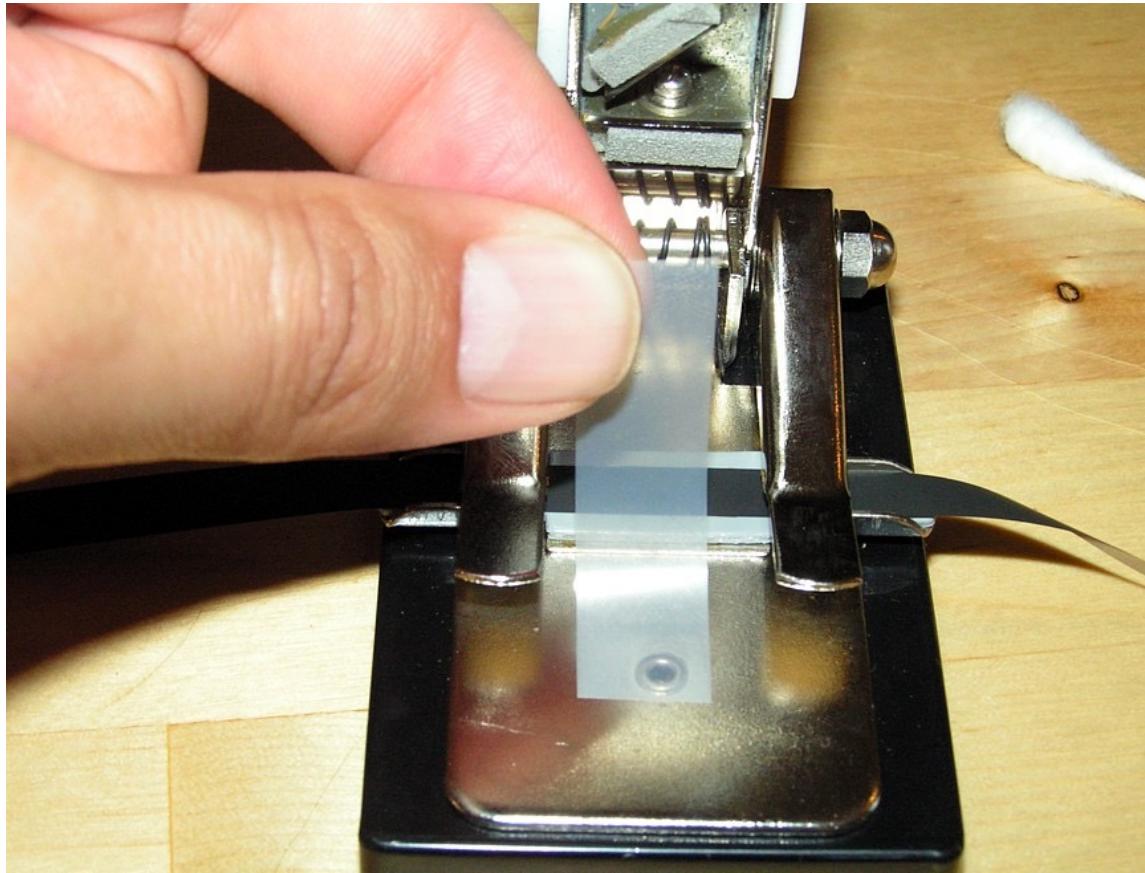


MUSIC THAT EXISTS ONLY AS SOUND



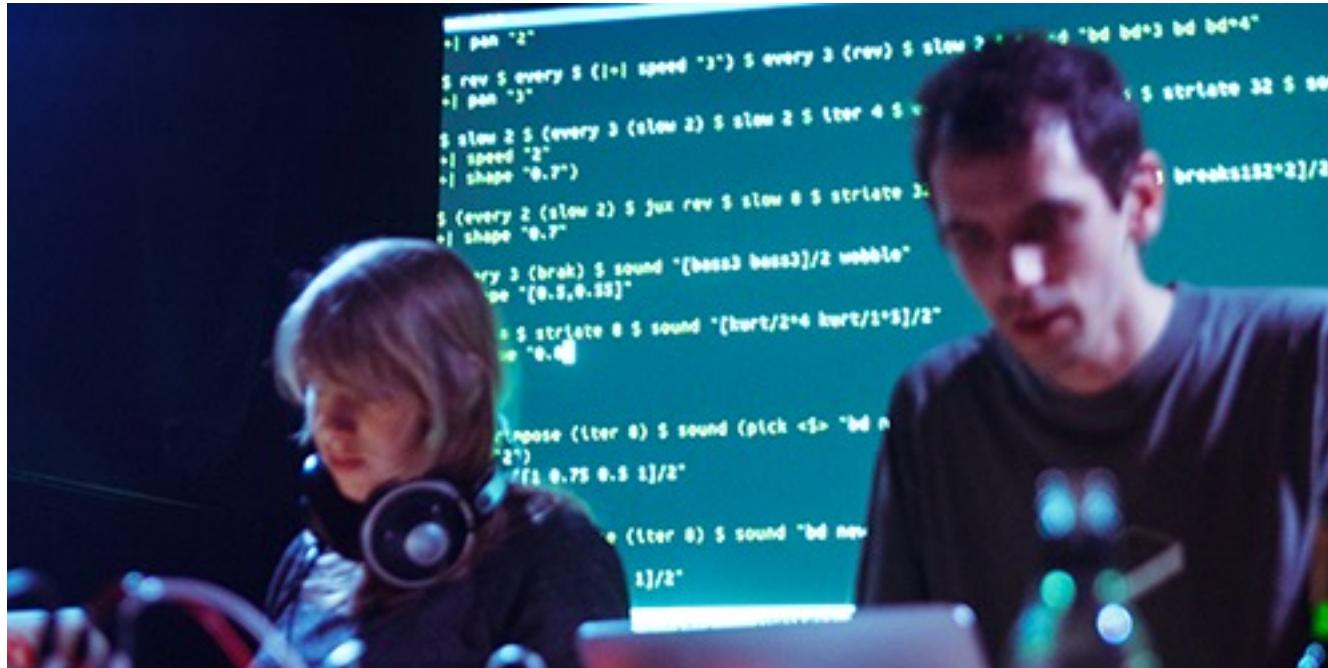
Listen to: [Natasha Barrett, Little Animals](#)

INVISIBLE MEDIA?



Listen to: [William Basinski, *The Disintegration Loops*](#)
[Yasunao Tone, *Solo for Wounded CD*](#)
[Ryan Maguire, *The Ghost in the mp3*](#)

VIRTUAL MUSIC



Listen to: [Shelly Knotts](#)



AOL AOL Chat Room Listings

Search All Chats by Topic:

Created by People Connection Created by AOL Members

1 Double-click to choose a category: 2 Double-click to enter a room:

Category	People	Rooms in 'A Place To Start'
A Place To Start	34	The Crash Pad
Arts and Entertainment		Coffee Klatch
Autos	1	The Cafe
Black Voices		Groove Lounge
Celebrities	15	The Crash Pad 1

Start Your Own Chat
 Enter or Start Private Chat

Top City Chats
1. New York
2. Los Angeles
3. Miami
4. Chicago
5. Boston

Go Where the People Are

Rate photos, flirt a little, get the star treatment, more:
 Join the Fun

AOL Keyword: Chat Room Listings



Wall Info Photos Boxes +

What's on your mind?

Attach: 

Yogile Easy photo sharing!

Public Albums My Albums My Account Logout FAQ Feedback

My Favorite Cricket Stars

share

 by Unnamed	 by Unnamed	 by Unnamed	 by Unnamed	 by Unnamed
 by Unnamed	 by Unnamed	 by Unnamed	 by Unnamed	 by Unnamed
 by Unnamed	 by Unnamed	 by Unnamed	 by Unnamed	 by Unnamed

Yogile Easy photo sharing!

Public Albums My Albums My Account Logout FAQ Feedback

My Favorite Cricket Stars

share

 by Unnamed	 by Unnamed	 by Unnamed	 by Unnamed	 by Unnamed
 by Unnamed	 by Unnamed	 by Unnamed	 by Unnamed	 by Unnamed
 by Unnamed	 by Unnamed	 by Unnamed	 by Unnamed	 by Unnamed

CASE STUDY: HEALTH RECORDS



BUT THERE ALWAYS REMAINS AN INTERFACE



```
<CsoundSynthesizer>
<CsOptions>
</CsOptions>
<CsInstruments>

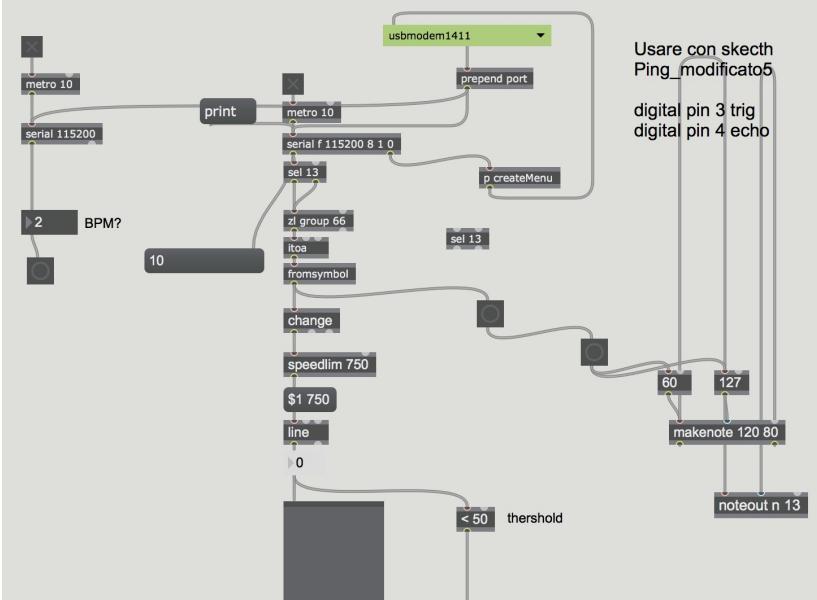
sr = 44100
ksmps = 128
nchnls = 2
Odbfs = 1

instr 1
kFreq line 100, 5, 1000      ; 'line' generates a linear ramp, from 100-1000 Hz, taking 5 seconds
aOut oscili 0.2, kFreq, 1    ; an oscillator whose frequency is taken from the value produced by 'line'
    outvalue "freqsweep", kFreq
    outs aOut, aOut
endin

instr 2
kFreq expon 100, 5, 1000      ; the 'expon' exponential curve is more useful when working with frequencies
aOut oscili 0.2, kFreq, 1
    outvalue "freqsweep", kFreq
    outs aOut, aOut
endin

</CsInstruments>
<CsScore>
f 1 0 1024 10 1
i 1 0 5
i 2 5 5
e
</CsScore>
</CsoundSynthesizer>
```

; the basic sine waveform for the oscillator is generated here
; the exponential curve goes more even thought the octaves



CROSSROADS: HOW DO WE PROCEED?

- Minimize the distance between the ‘real’ and the technologically-mediated experience.
- Give up! Just go back to playing good ol’ musical instruments. They work just fine!
- Embrace the disruption. Consider how interactive technologies can expand or alter the way we think of music.

**OPPORTUNITY:
EXPAND THE
DEFINITION OF
MUSIC**

WHAT IS A MUSICAL INSTRUMENT?

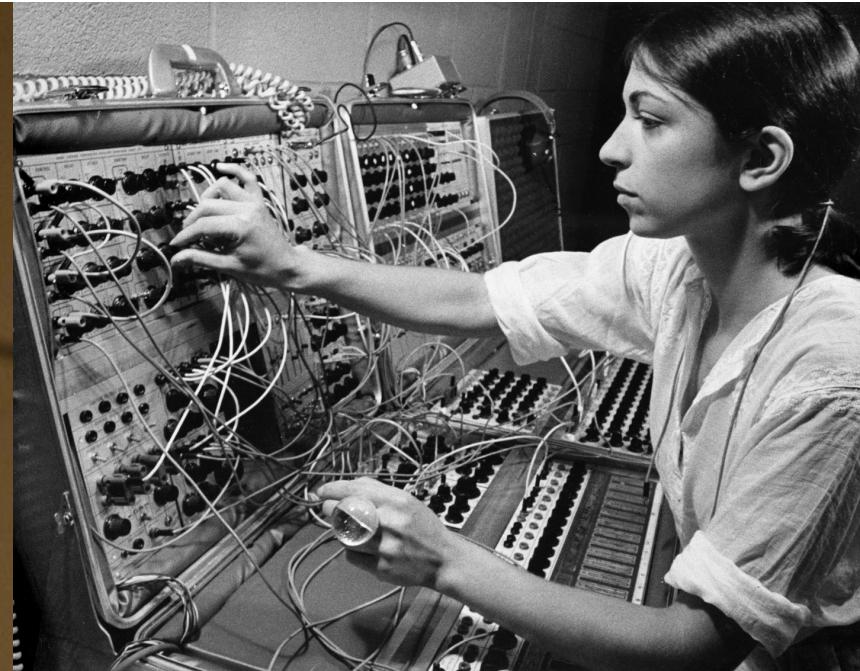


See: [Guthman Musical Instrument Competition](#)

WHAT IS THE ROLE OF THE BODY IN MUSIC?



WHAT IS SKILL?



HOW DO WE DEVELOP STYLE?



CAN WE CHANGE THE SOCIAL DYNAMICS OF MUSIC?

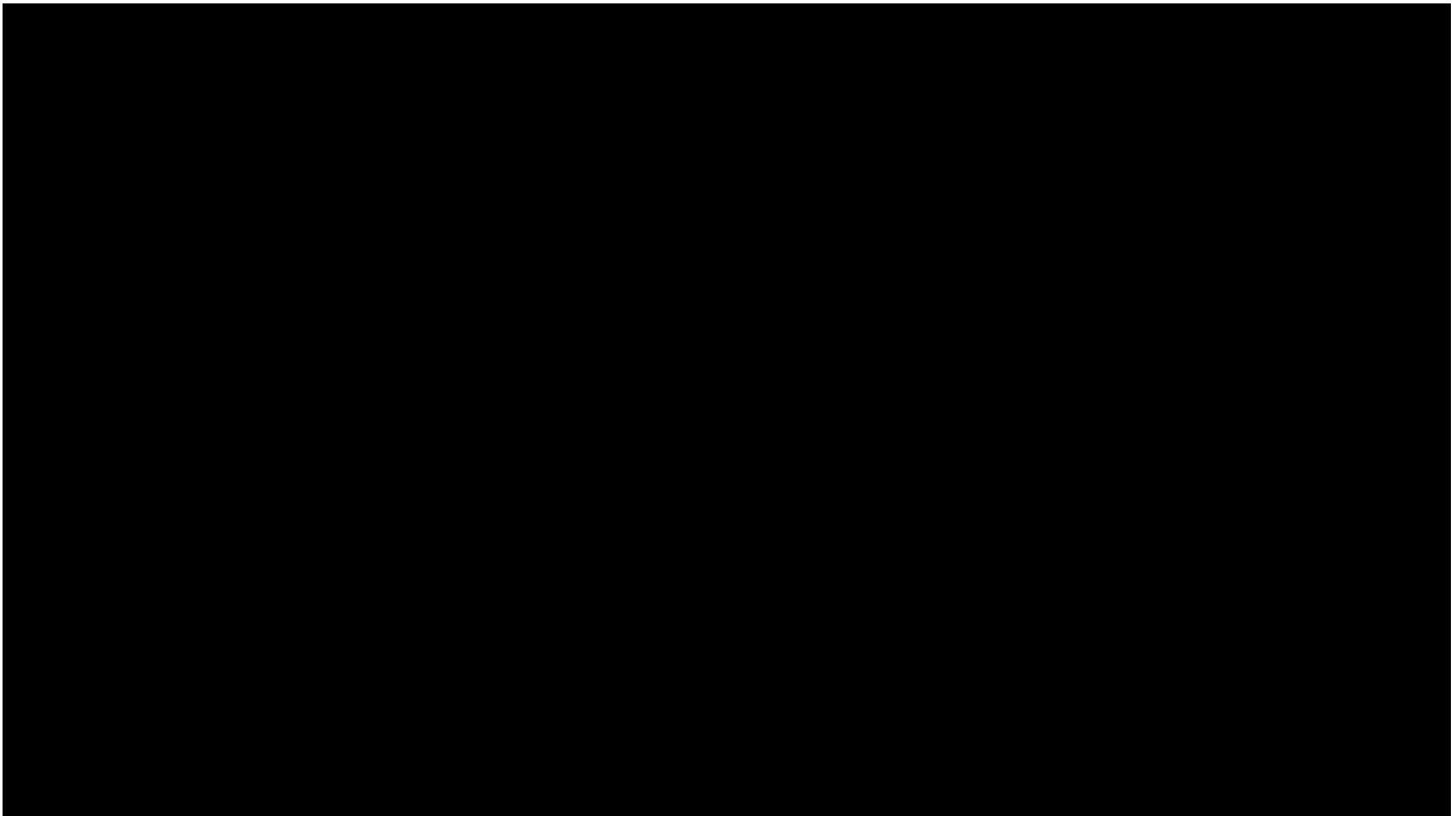


INSPIRATIONS / PROVOCATIONS



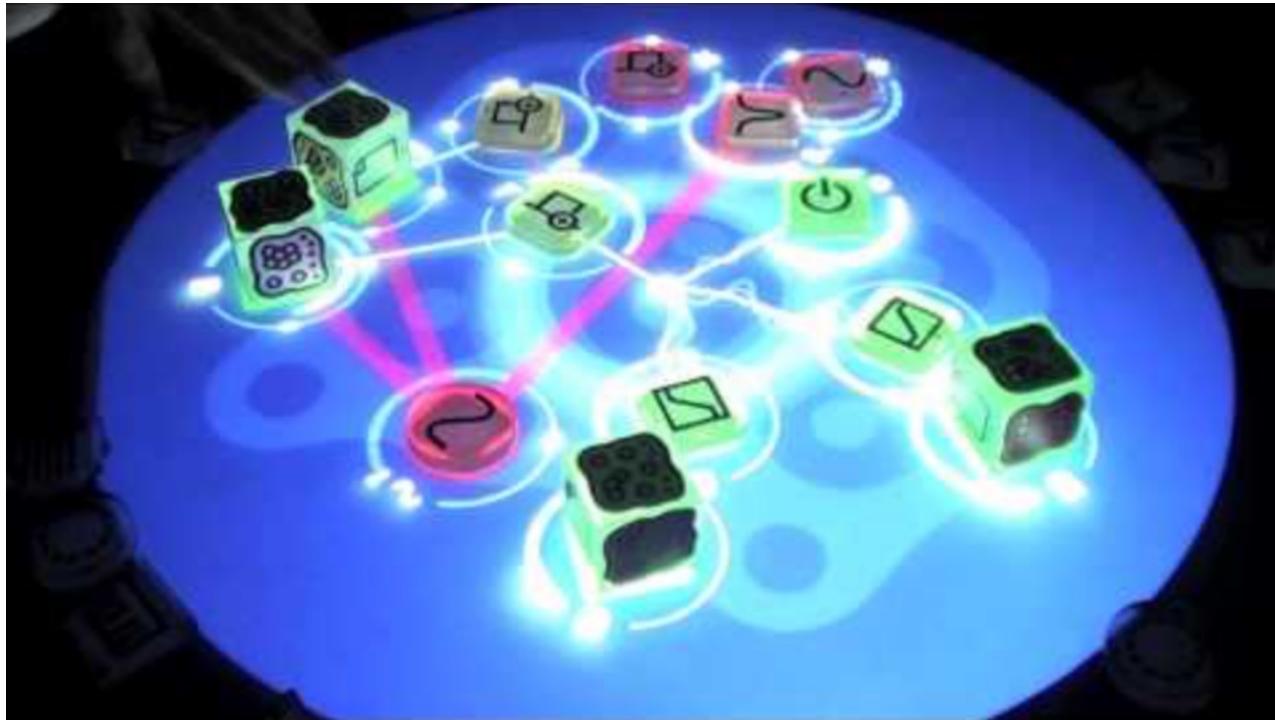
https://youtu.be/Bx4zOYYAW_A

INSPIRATIONS / PROVOCATIONS



<https://vimeo.com/104983678>

INSPIRATIONS / PROVOCATIONS



<https://youtu.be/3O3jFzsOWm4>

INSPIRATIONS / PROVOCATIONS



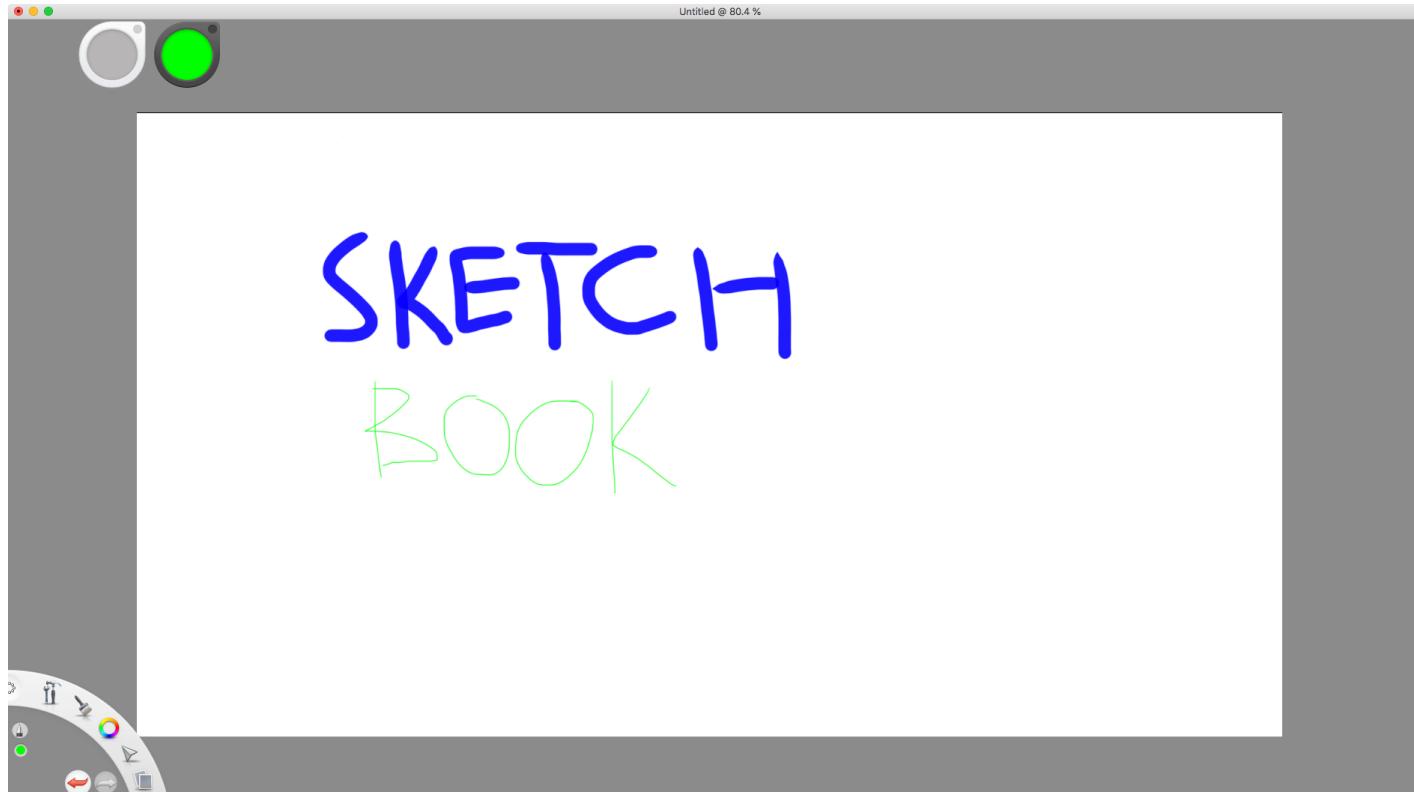
<https://youtu.be/i9VnA19jWEA>

COURSE RESOURCES

GET A SKETCHBOOK AND A SHARPIE

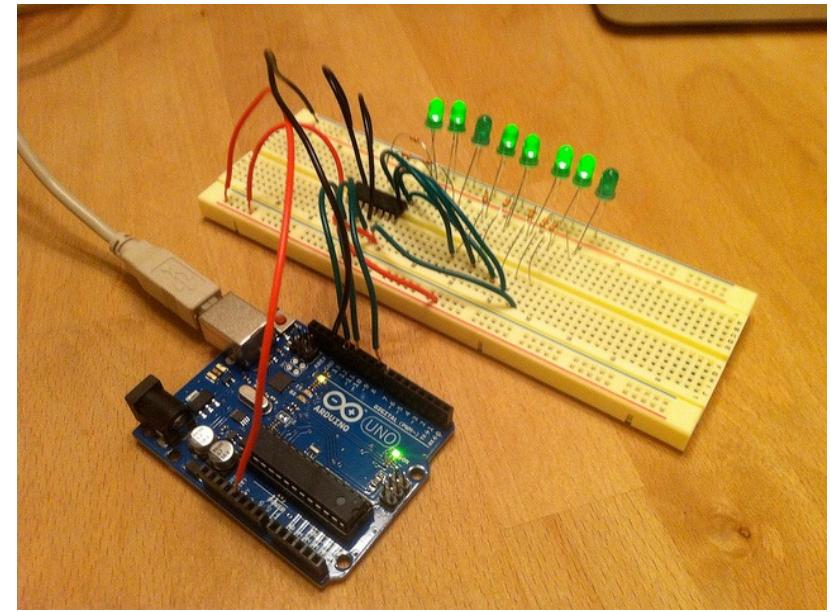


FEEL FREE TO EXPERIMENT WITH DIGITAL TOOLS



I like AutoDesk SketchBook: <https://sketchbook.com/>

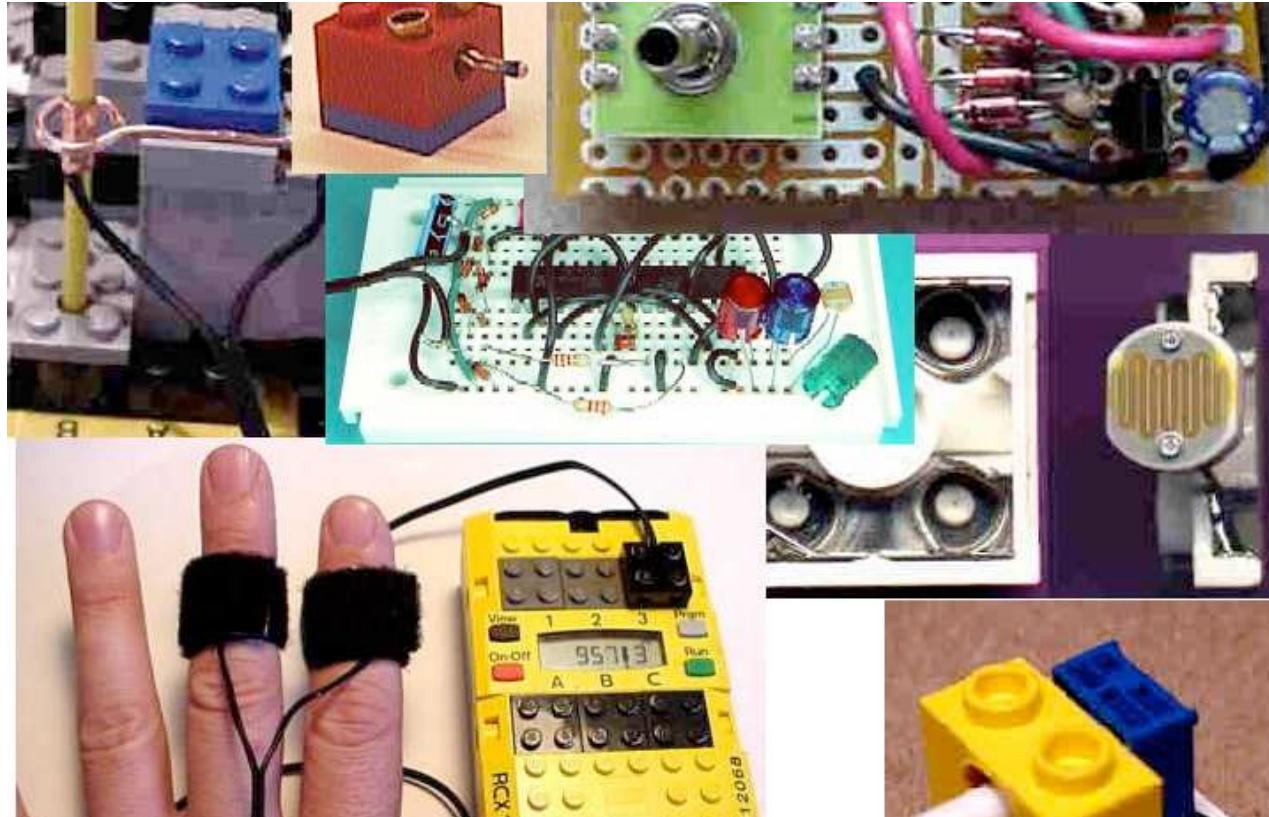
USING WHAT IS AT HAND



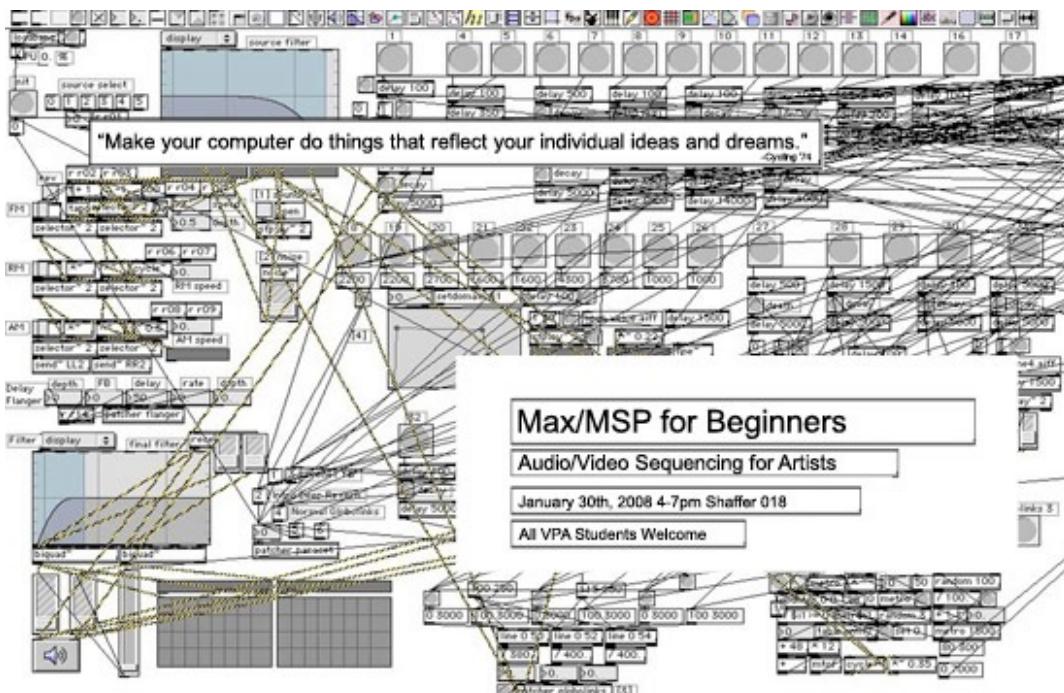
MATERIALS



SKETCHING WITH ELECTRONICS



SKETCHING IN CODE



```
template3d | Processing 0135 Beta
Run

boolean renderGround = true; //whether or not to show the ground plane
colorgroundColor = color(150); //the color of the "ground" plane
color backgroundColor = color(255); //the color of the "sky"
color strokeColor = color(50); //the color for lines
color boxColor = color(8, 255, 0); //the color of the boxes (red, green, blue)
int numBoxes = 1000;
float minLocation = -1200;
float maxLocation = 0;
float minDimension = 10;
float maxDimension = 200;

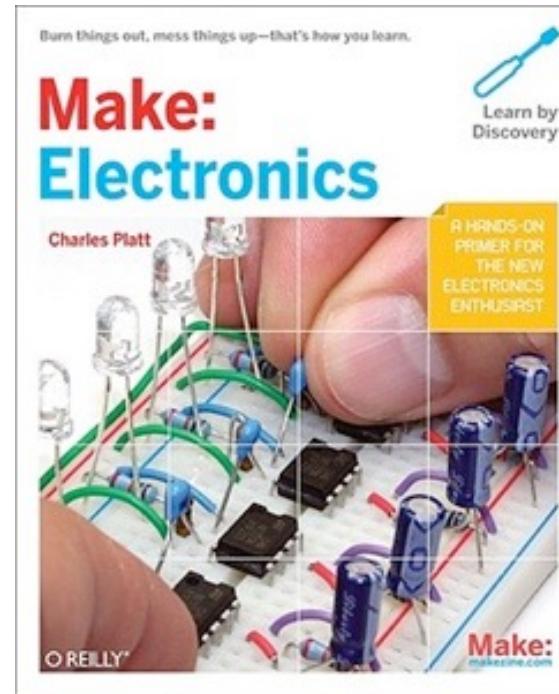
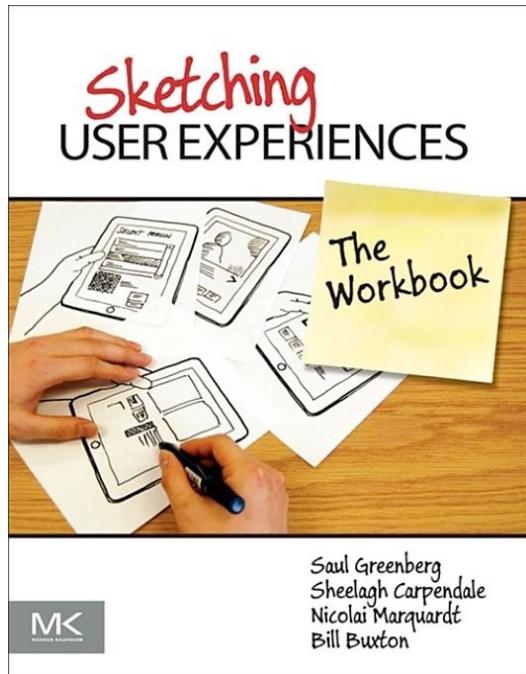
//Global objects
Camera viewCamera; //this controls how we view the scene
randomBox[] boxes; //a list of the boxes we will draw in the scene

//Setup - define initial values
void setup() {
    size(800, 600, OPENGL);
    frameRate(30);
    viewCamera = new Camera(this, -(minLocation * 1.5), (minLocation * 1.5), -(min
    frame.addMouseWheelListener(new MouseWheelInput()); //listen for scroll wheel
    //initialize boxes
    boxes = new randomBox[numBoxes];
    for (int i = 0; i < numBoxes; i++) {
        boxes[i] = new randomBox(minLocation, maxLocation, minDimension, maxDimension);
    }
}
```

SKETCHING WITH CAMERAS



ONLINE BOOKS



LOTS OF WEB RESOURCES

<http://www.arduino.cc/>

<https://cycling74.com/get-started>

<http://makezine.com/>

<http://createdigitalmusic.com/>

<http://nime.org/>

...

SYLLABUS REVIEW

HOMEWORK

HOMEWORK

- 1. IF YOU ARE GOING TO DROP THE CLASS, EMAIL ME ASAP!**
- 2. IF YOU ARE GOING TO CONTINUE IN THE CLASS:**
 - A. Before next class:** READ the two chapters by Greenberg and Buxton on Canvas.
 - B.** Make sure you have a way to do sketching during our next class: sketchbook or white paper & sharpie (preferred) and/or pencil (last resort)