Making Noise:
Sound Art and Digital Media

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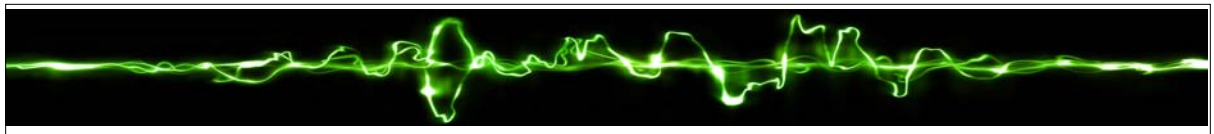
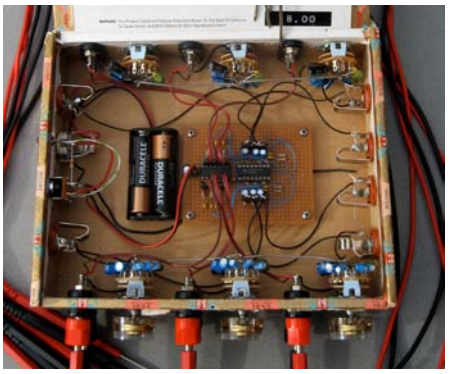
School of Computing
University of Utah
Salt Lake City, UT USA



What are we up to?

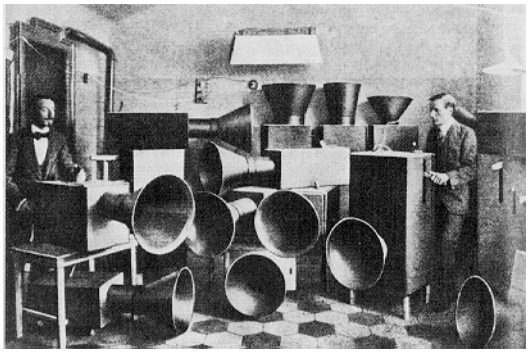


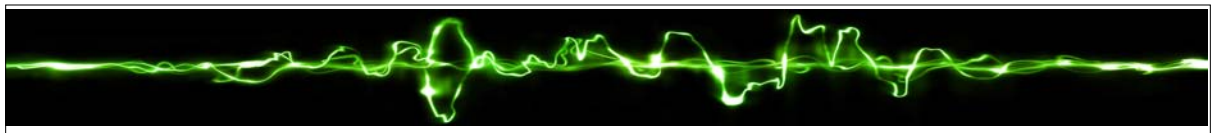
- Technological Fluency

  Learn enough to ask the right questions

- Sound Art and Digital Media

  Including electronic and experimental music



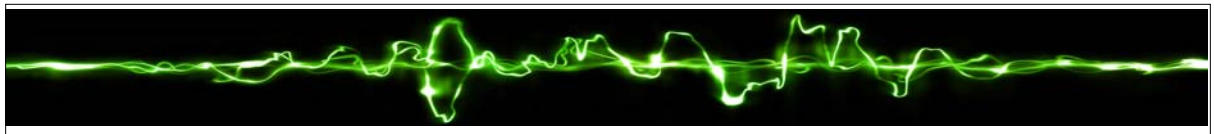


Disclaimer…

Beware that you've signed up for the first offering of a very experimental course!

I have a broad outline of the material in mind, but many of the details will be worked out as we go along.

The schedule will almost certainly change as the semester progresses...



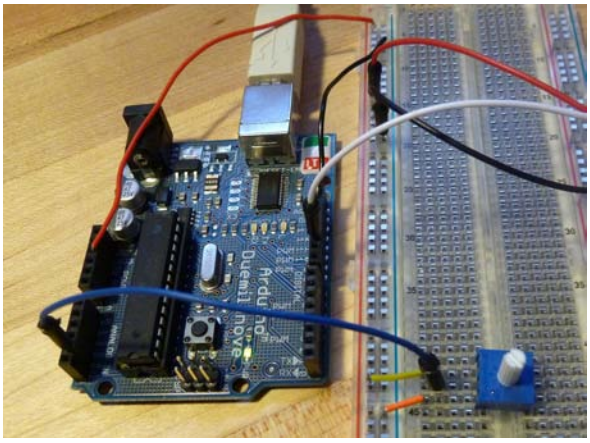
Technological Fluency

- Sort of like Technological Literacy, but better

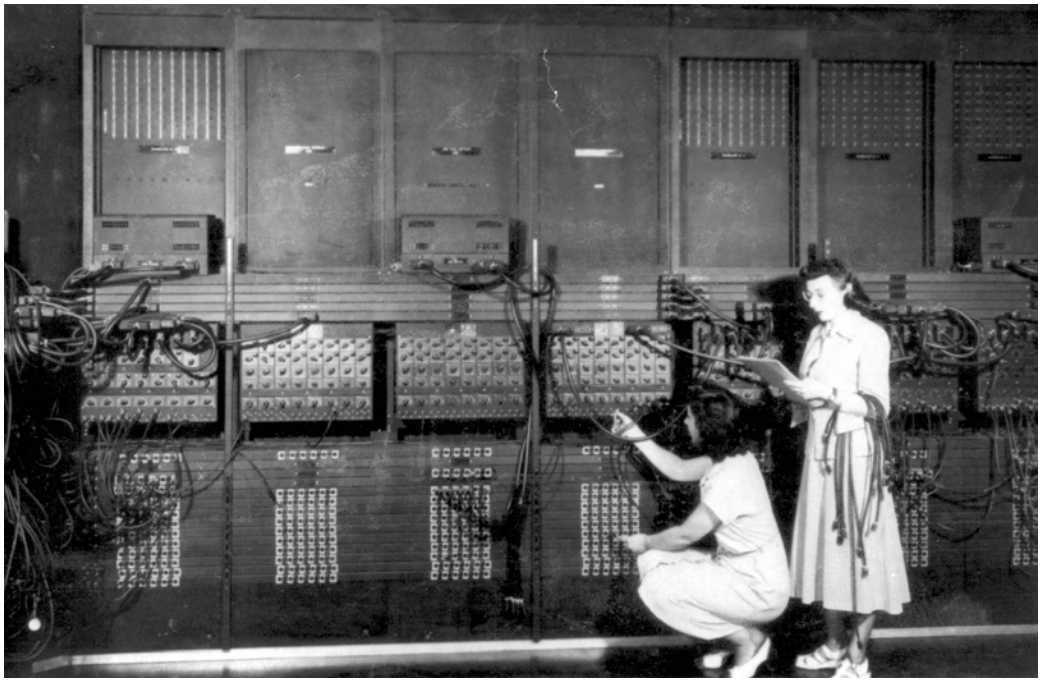
  A little bit of electronics from a *"How do I use that?"* point of view

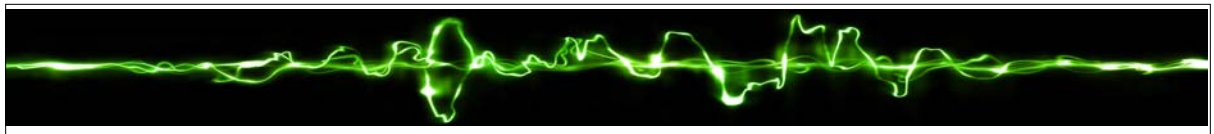
  A little bit of programming from a *"How to I make noise with that thing?"* point of view

  A little bit of hacking from an *"I wonder what this does?"* point of view



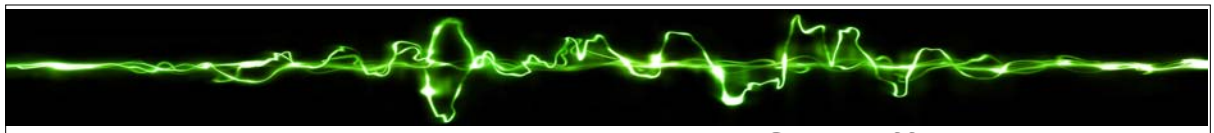
Old-School Programmers



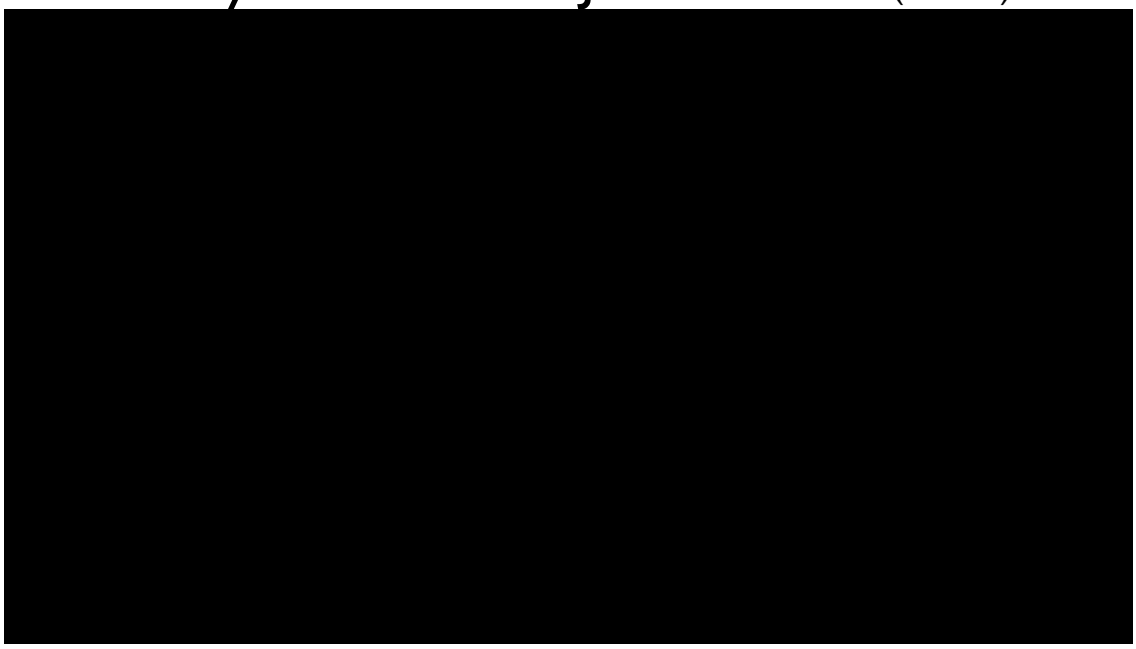


Sound Art

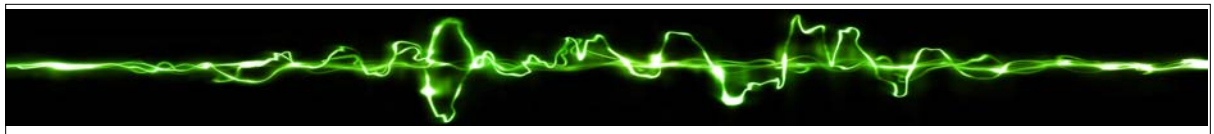
- The Art of Noise?
- Art that uses sound as a medium
  - Sound installations
  - Electronic and experimental music
  - Ambient music
- Somehow different than music…



Forty Part Motet - Janet Cardiff (b1957)



Forty separately recorded voices are played back through forty speakers strategically placed throughout the space.

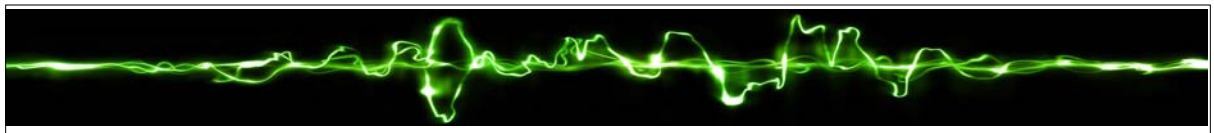


Zimoun (b1977)

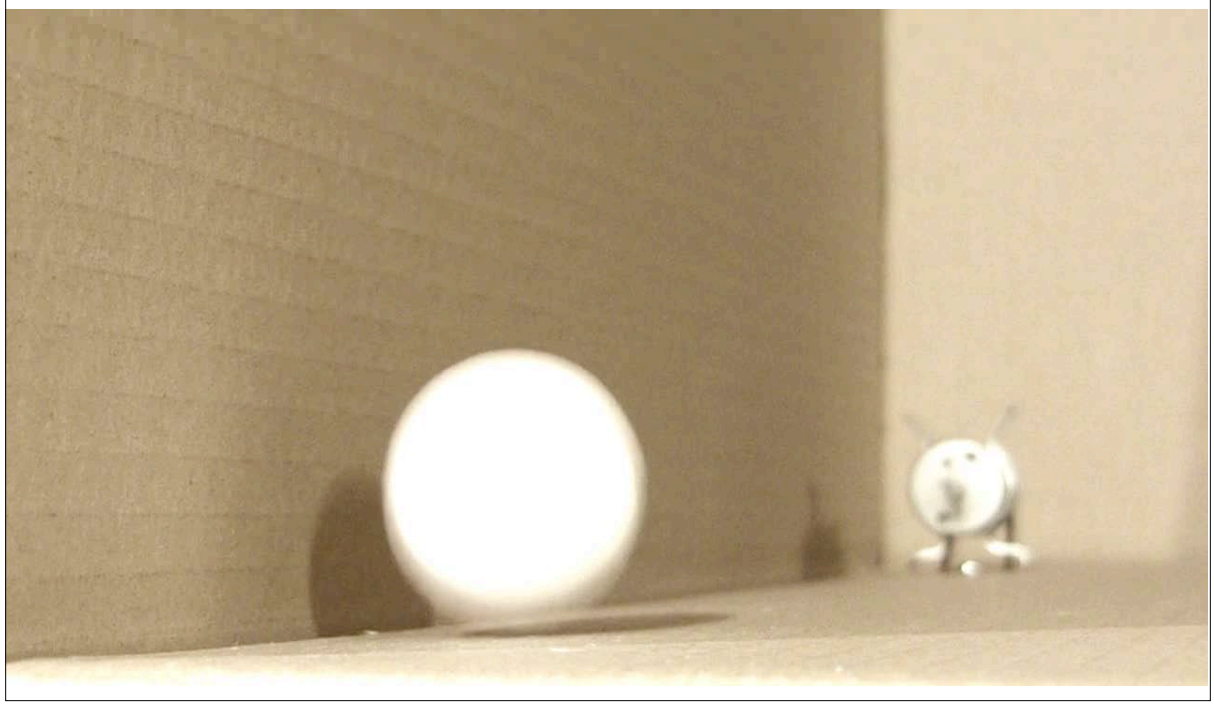
- Swiss artist

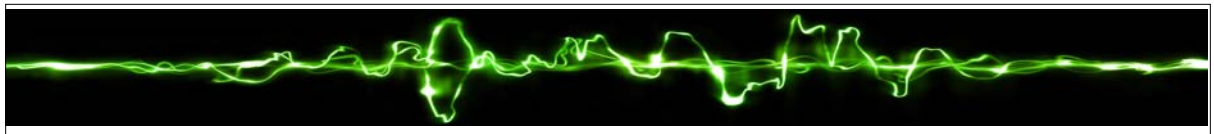
Makes "sound sculptures"

for example: rotating balls on cardboard boxes

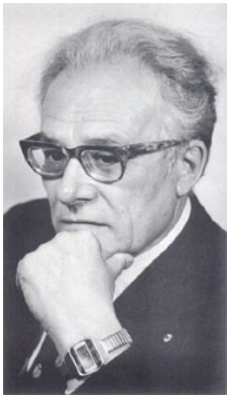


Zimoun





Vladimir Ussachevsky (1911-1990)



- Pioneer of electronic music

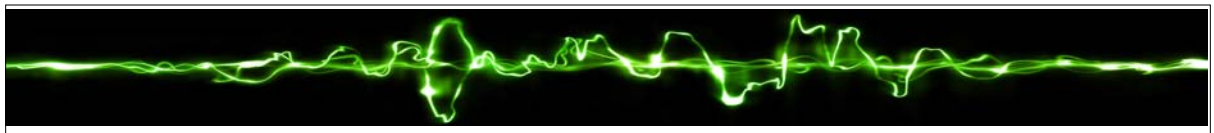
  "Tape music" in particular

- At Columbia University starting in 1947

  Co-founded their electronic music studio

- Visiting prof at the UofU in the late 1970's

  I was lucky enough to have taken a class from him in 1979



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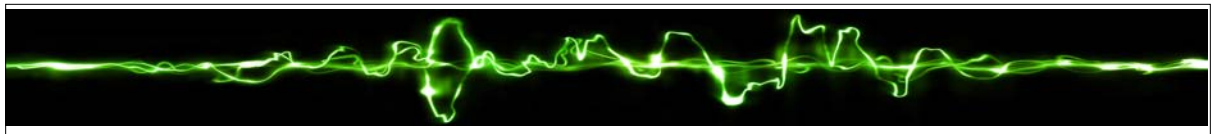


Vladimir Ussachevsky

Vladimir Ussachevsky

- Linear Contrasts - 1958 (3:48)

  Tape recorders, audio oscillators, filters, reverberation, piano, and harpsichord

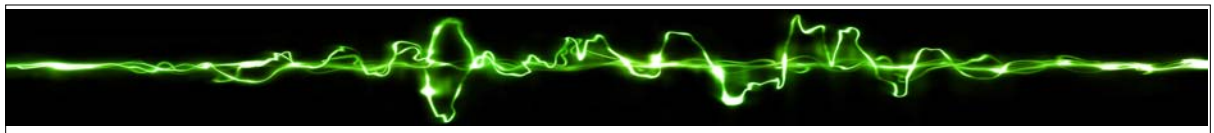
  A classic piece of "tape music"

  Blends "concrete" sounds and purely electronic sounds

Brian Eno (b1948)

- Joined Roxy Music in 1971
- Has collaborated with Robert Fripp, David Bowie, Devo, David Byrne, Laurie Anderson, etc.
- A pioneer of ambient and generative music

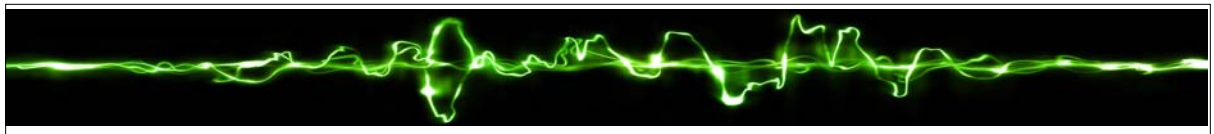
  low-volume music designed to modify one's perception of a surrounding environment.



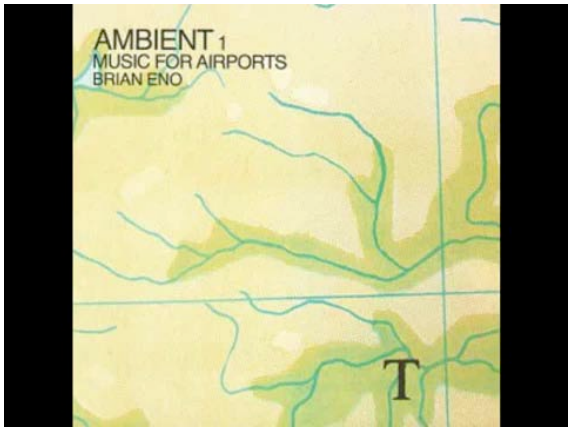
Brian Eno

- *Ambient 1: Music for Airports (track 1 - 17:21)*

  "Music as ignorable as it is interesting."



Brian Eno



- *Ambient 1: Music for Airports (track 2 - 8:54)*

  "Music as ignorable as it is interesting."

Brian Eno

- *Compact Forest Proposal (2001)*

  There are 10 active CD players in this installation. Each is playing a specially cut CD, a single layer of the total music. The CDs have different numbers of tracks, some of which are silent, and each player is set to play these tracks in random order. The final music is therefore an ever-changing combination, unlikely to ever exactly repeat itself in any individual listeners experience.

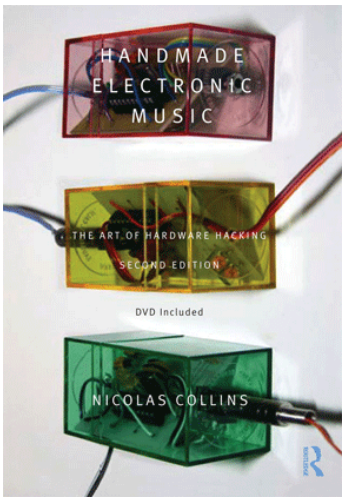
Nicolas Collins (b1954)

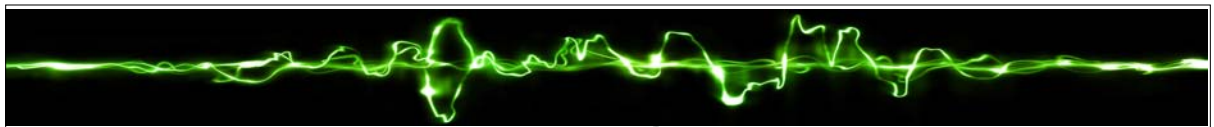
- Pioneer of using microcomputers in live musical performances

  And in "hardware hacking:" turning random toys and other electronic devices into "instruments"

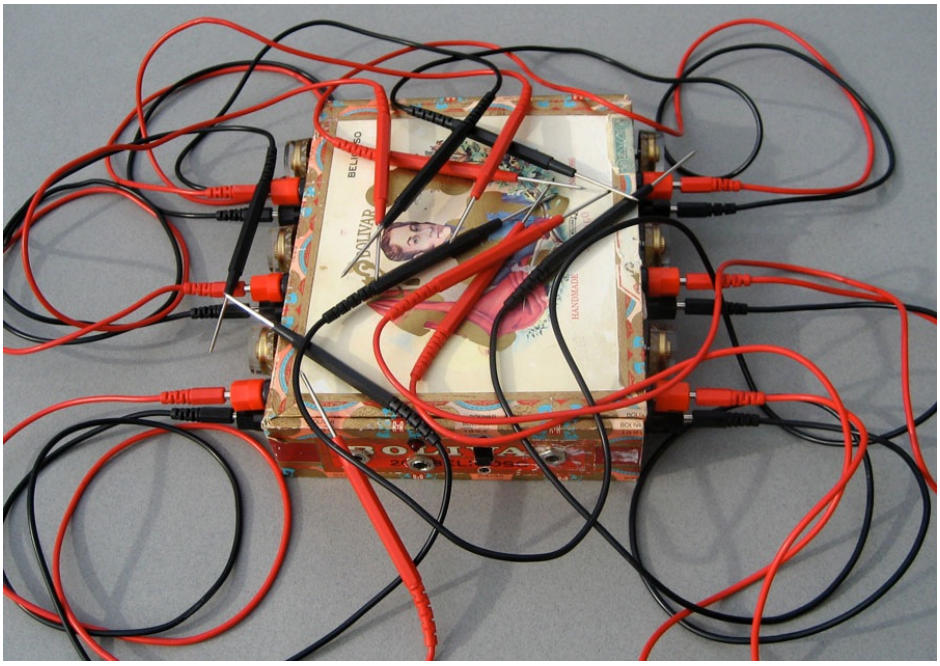
  Teaches at the School of the Art Institute of Chicago

  Author of our textbook

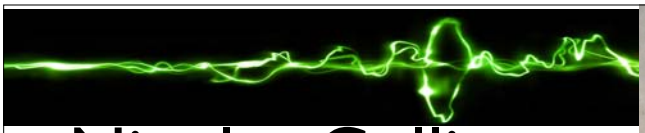




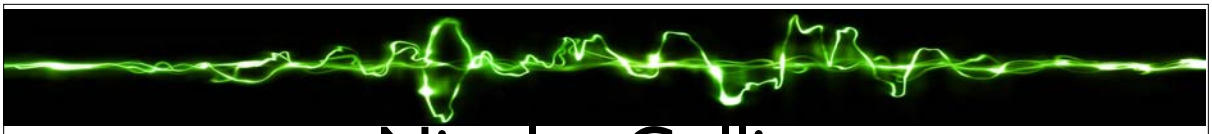
Nicolas Collins



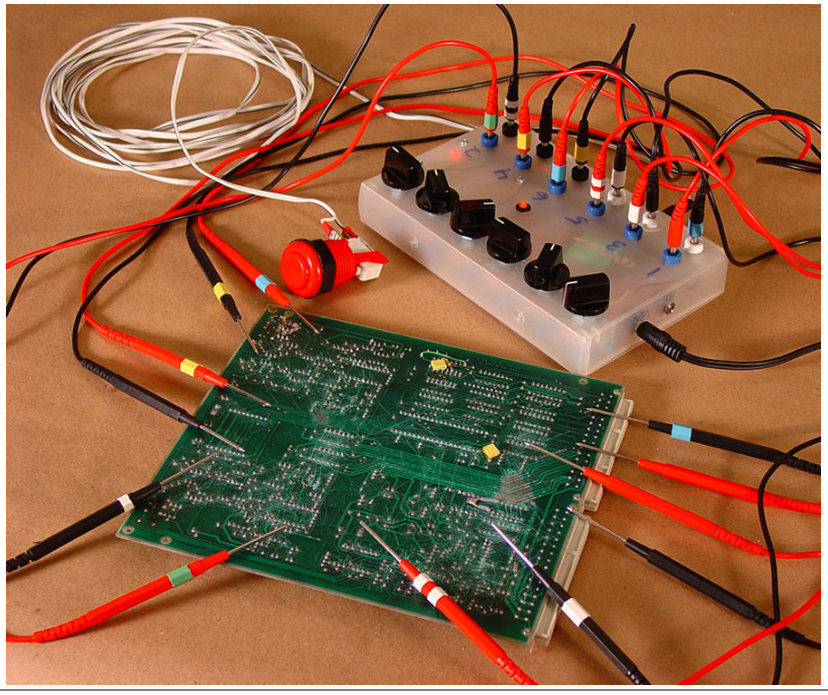
Nicolas Collins

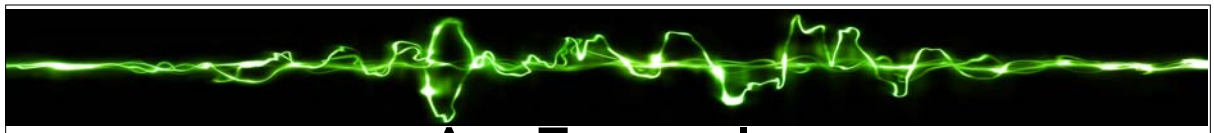


Nicolas Collins

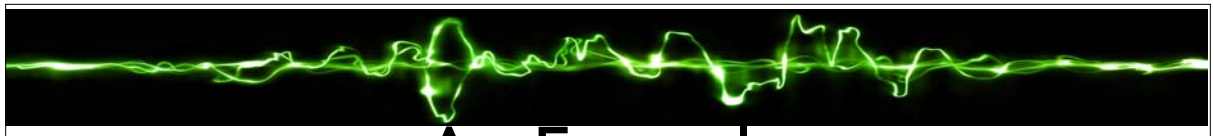


Nicolas Collins





An Example



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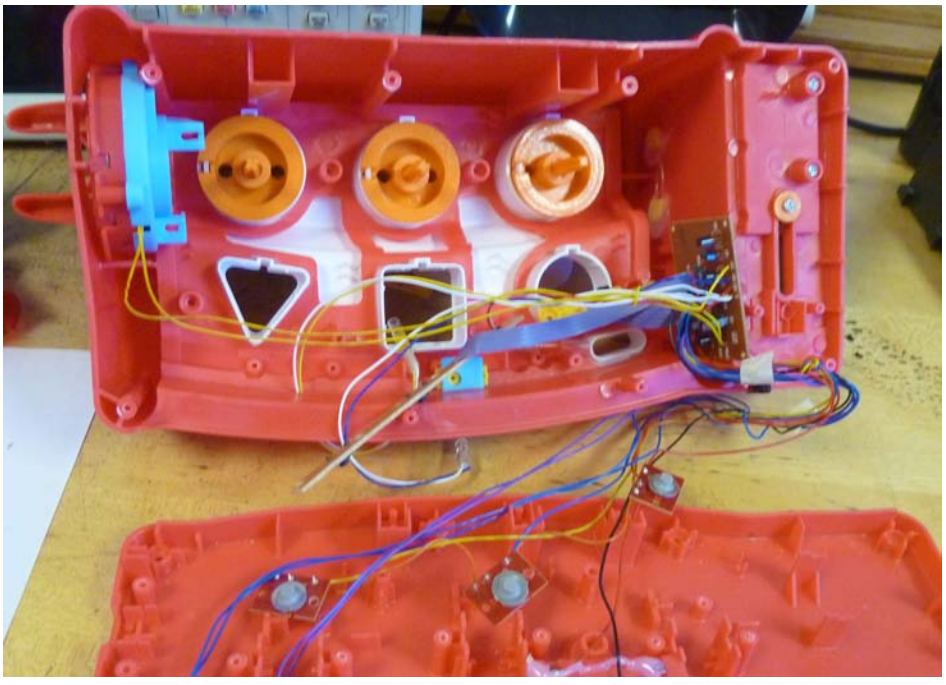
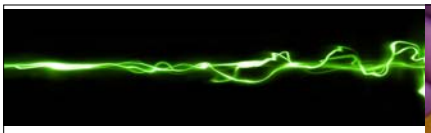
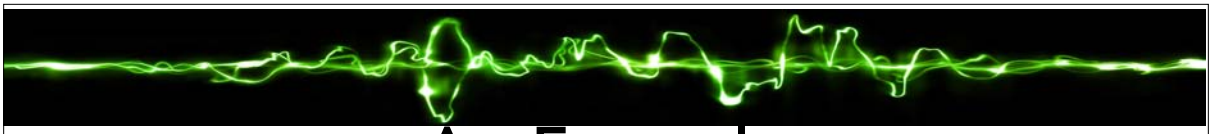




An Example



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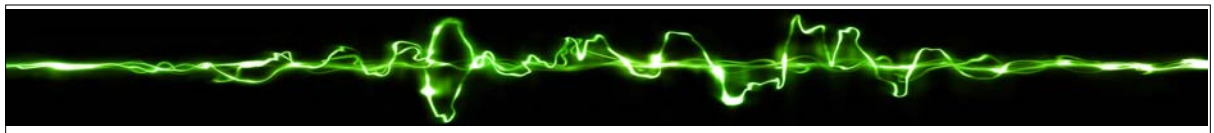
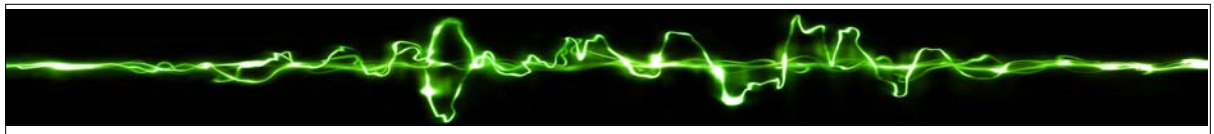


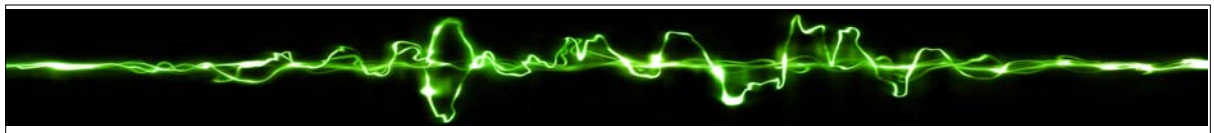
Class Schedule

- **Reading assignments** - discussed on Tuesdays
  - Submit a short response before class
  - In-class listening to go along with the readings
- **Listening assignments** - discussed on Thursdays
  - Submit materials before class
- A lot of stuff! But, lowest two scores on each type of assignment will be dropped…



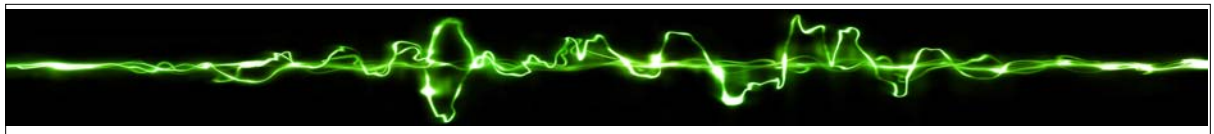
Class Schedule

- Four Projects
  - Field recordings with inductive coil
  - Arduino programming to make noise
  - Hardware Hacking - hack a toy
  - Oscillator circuits
- "Raw material" for a wide variety assemblages



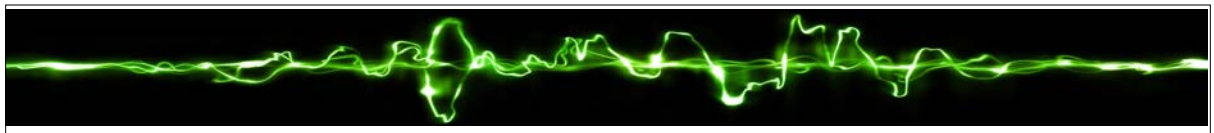
Final Project

- Use the materials you gathered/generated to design and build a project
  - Musical composition - electronica?
  - Sound art installation?
  - Construct an instrument and perform?
  - Other ideas?
- Demo/performance on last day of class (April 28)



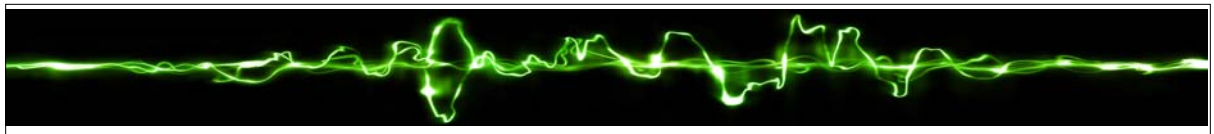
Lecture Series

- External speakers - all related to technology and the arts
  - Gould Auditorium in the Marriott Library
  - 3:45-5:00pm
- Please attend if you can!



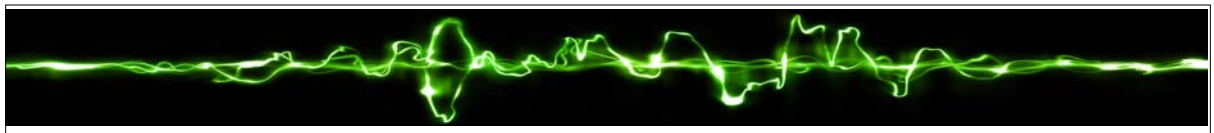
Lecture Series

- **Thursday, Jan 22: James Coupe** - University of Washington, Seattle, WA
  - Art, Surveillance and Metadata
- **Tuesday, Feb 17: Lindsay Grace** - American University, Washington D.C.
  - Affect and Effect - Persuasive Play and Meaningful Games
- **Tuesday, Mar 24: Mark Koven** - Utah State University, Logan, U
  - Between Form and Function: an integration of Art and Science
- **Tuesday, Apr 21: Bill Manaris** - College of Charleston, Charleston S.C.
  - Computing in the Arts (CITA) - A New Major for Creative People



Grading

- Reading Assignments: 15%
- Listening Assignments: 20%
- Four projects: 40%
- Final project: 25%

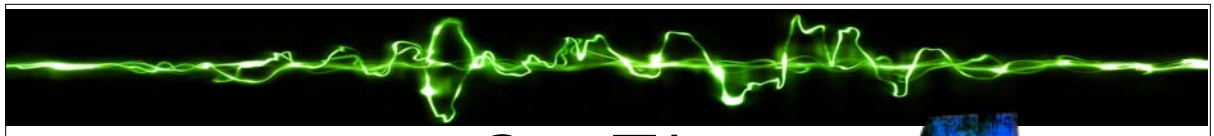


Academic Integrity

- You can discuss with, study with, and learn from other students in the class, but any work that you turn in should be your own

  There's a link to the School of Computing's Academic Misconduct policy on the Canvas page

  Please read it, (I will assume that you have!) and please don't give any cause for sanctions!



Our TA

- Nick Day (aka Alfredofreak)

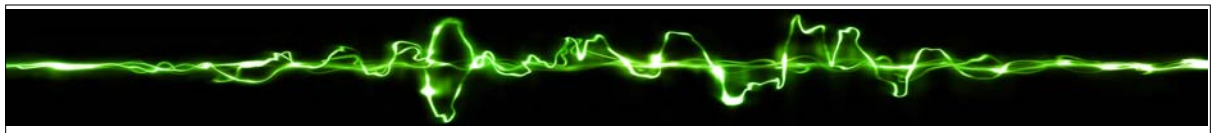
  Nick "test drove" this course in the fall

  http://alfredofreak.com/indsty/

  He's done all the projects

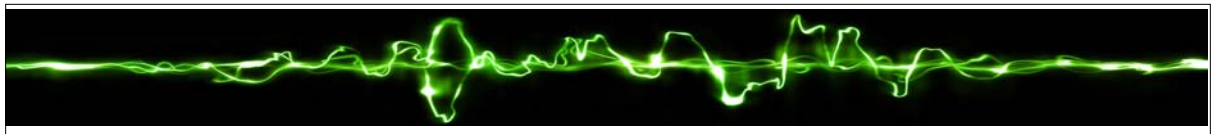
  He know a lot about music, and music SW

- TA Hours in our lab - Days/Times TBD



Canvas Page

- www.eng.utah.edu/~cs2050
- https://utah.instructure.com/courses/320797



Contact

- Erik Brunvand, School of Computing

  elb@cs.utah.edu

  Office: 3142 MEB (on the west wall of MEB)

- Nick Day

  alfredofreak@gmail.com

  TA Hours in our lab (MEB 3142)