Chapter 16. Meeting 16, Workshop: Performance and Improvisation

16.1. Announcements

- Due this Wednesday 6 April: Controller/Interface/Instrument Design 2 Proposal
- Performance Frameworks groups will be posted tonight
- Due Wednesday 13 April: Performance Frameworks Draft

  Must email me immediately with special requests for groups (will send out tonight)
- End of semester concert is set for May 4:

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Sonorous Currents:
A Concert of 21M.380, Live Electronics Performance Practices

Wednesday, May 4, from 4 to 5 PM
Lewis Music Library, MIT

New works for live electronics with laptops, iPhones, circuits, and other
sonological mechanisms.

Free and open to the public.
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16.2. Performance Frameworks Groups

- Groups of 2 to 4 students - names removed for privacy

16.3. Reading: Collins, Handmade Electronic Music

- Collins, N. 2009. *Handmade Electronic Music: The Art of Hardware Hacking*. 2nd ed. New York: Routledge.
- The Hex Schmitt Trigger digital logic chip: six inverters on a chip
- Given an input of 1 (9 volts) output 0 (0 volts) and vica versa

- The resistor permits feedback, causing alternation between 9 and 0 volts and producing a squarish sound wave
- 74C14 Pins

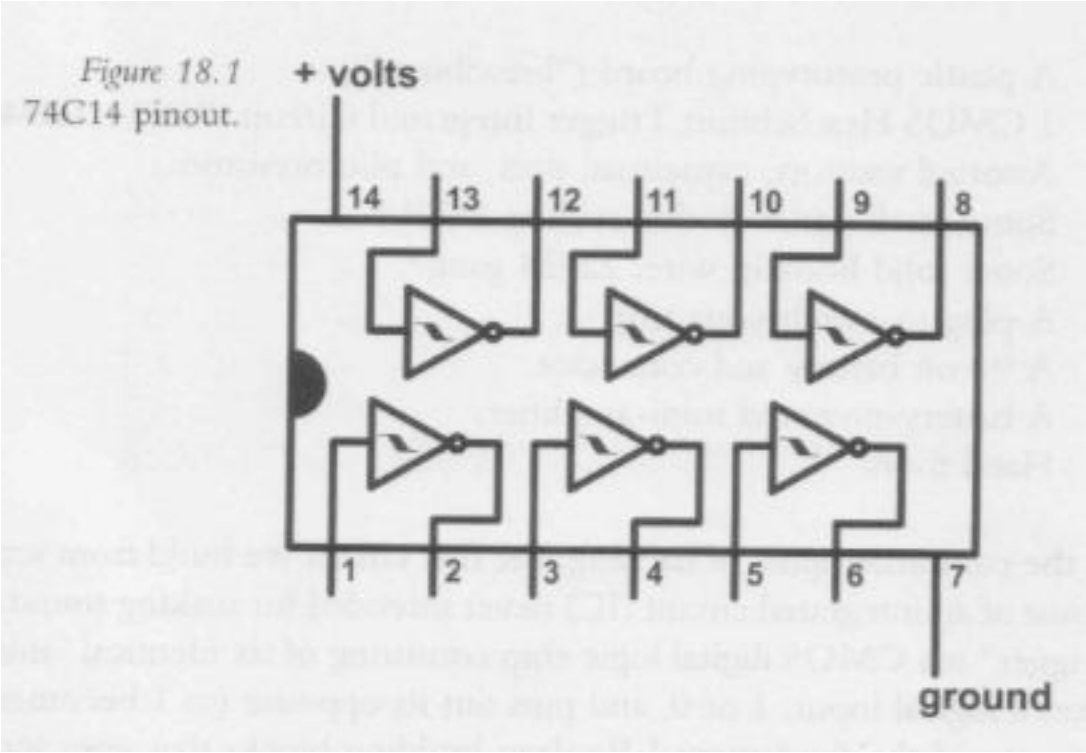


Figure 18.1 74C14 pinout.

- Using a resistor to create feedback oscillation

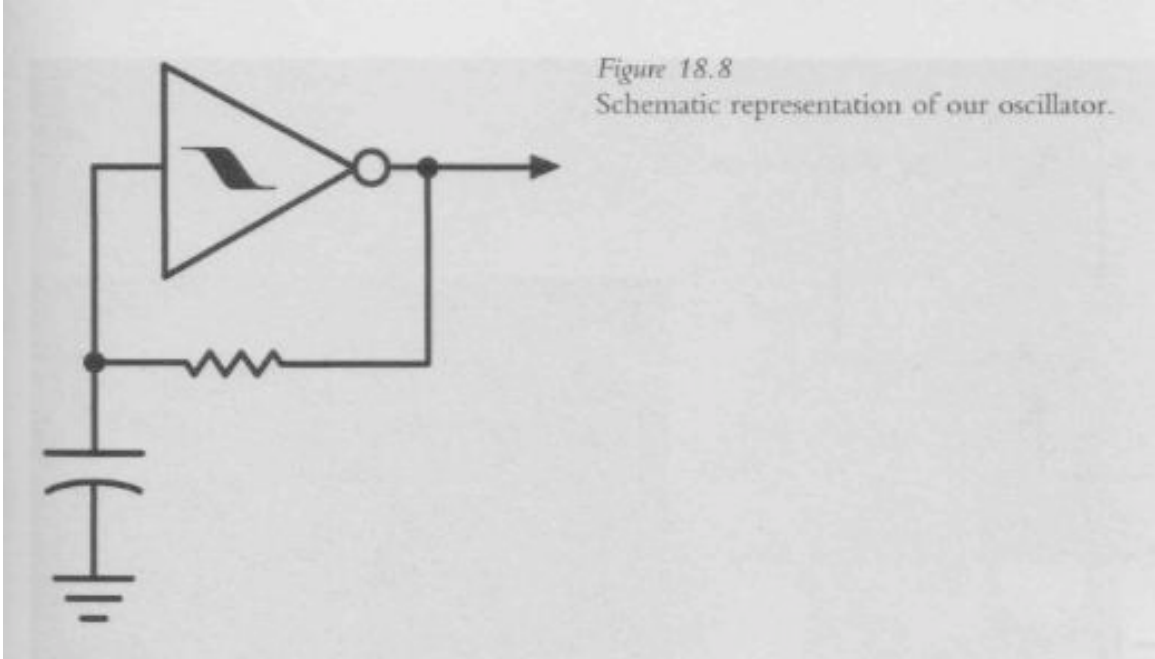
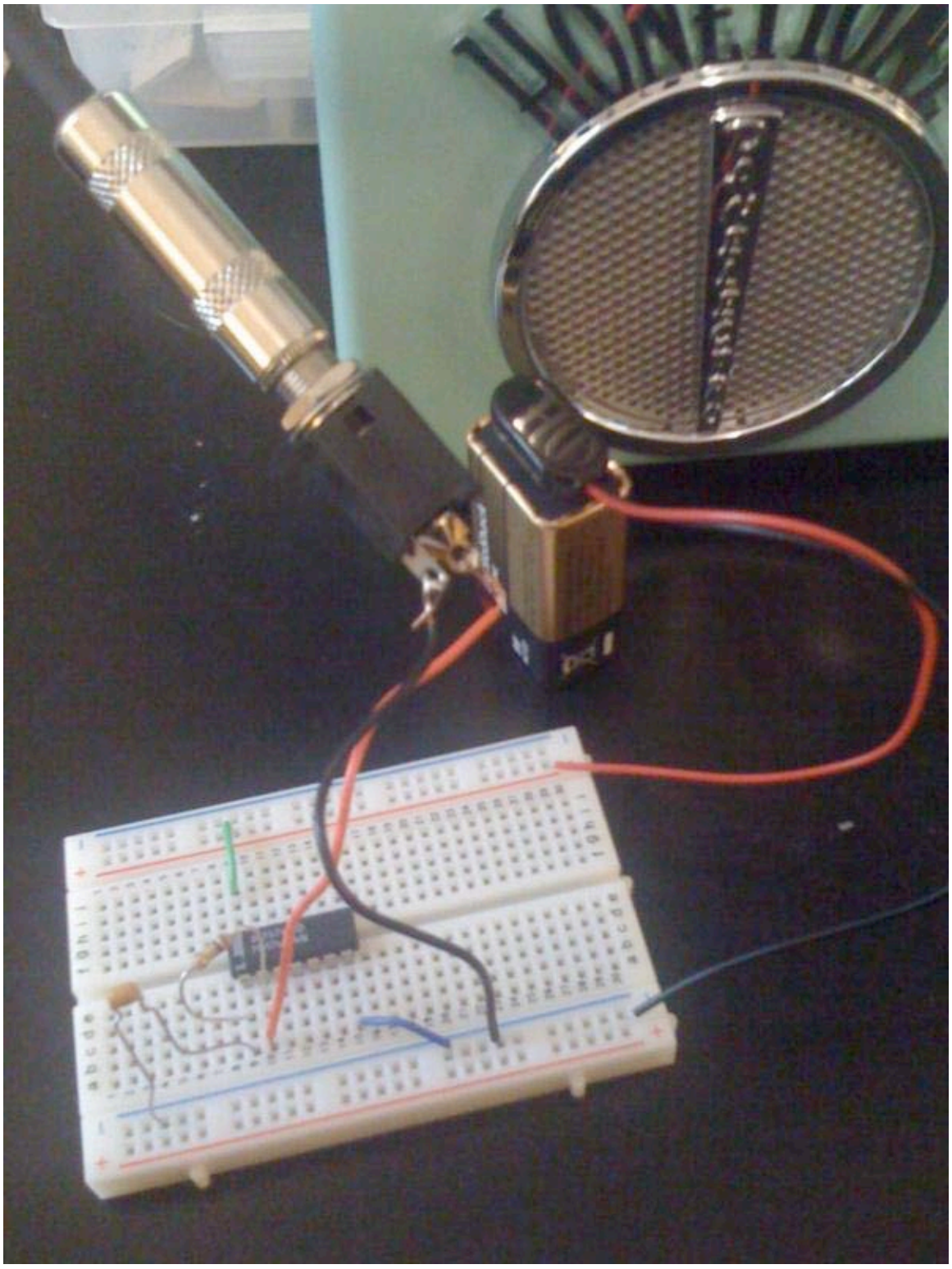


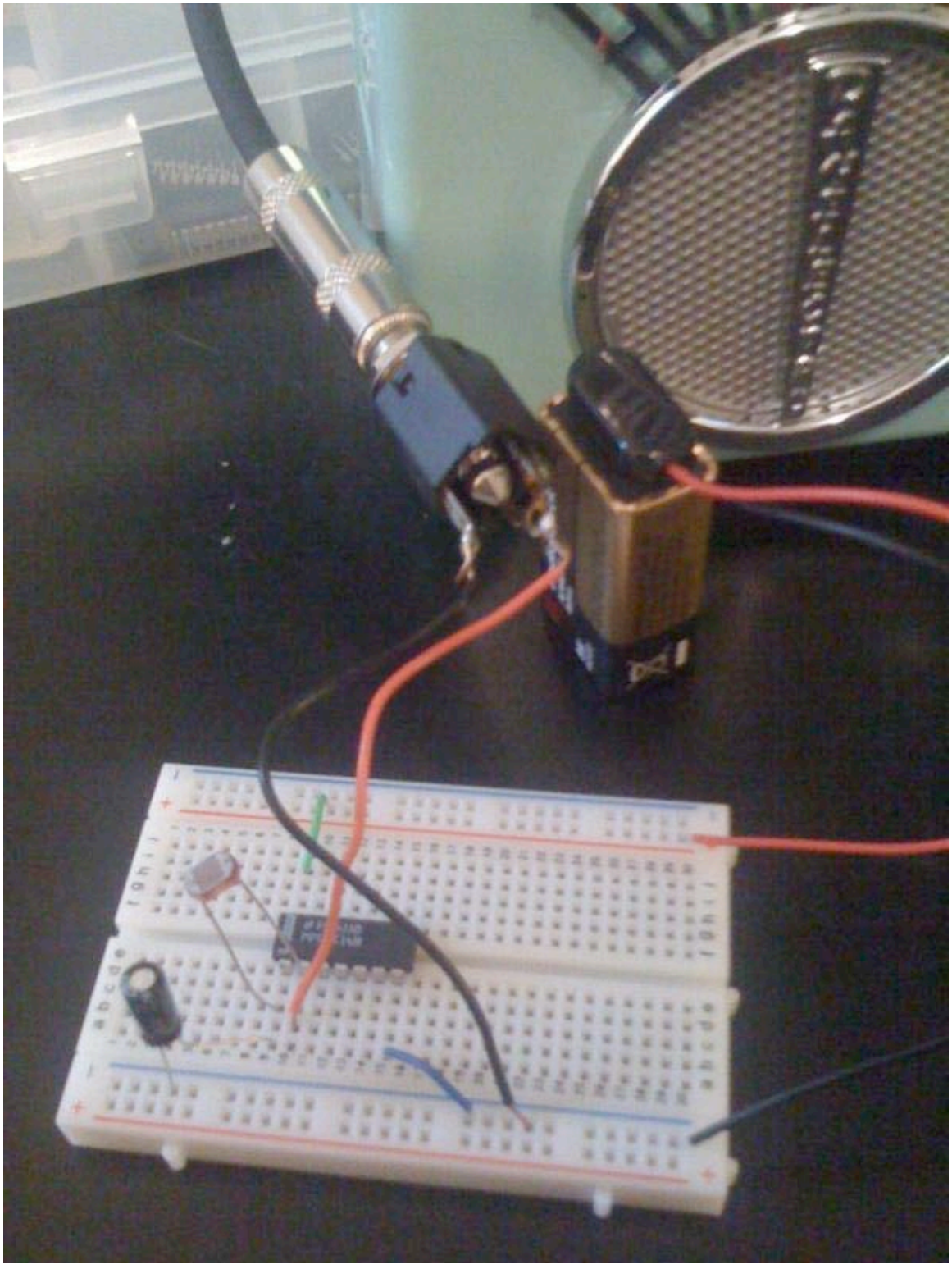
Figure 18.8
Schematic representation of our oscillator.

- Breadboard



- Varying resistance changes the frequency of oscillation
- A photoresistor decreases resistance with more light, increases resistance with less light

- Varying the capacitor sets the range of oscillation
- Breadboard



16.4. Exercise: Improvisation with Controller/Interface/Instrument Design 1

- Load: instruments created for Controller/Interface/Instrument Design 1
- Ensemble: each person enter staggered; do ostinato layers

16.5. Work II

- Load: arizaWork02-performance*.test.pd

  martingale/comopositions/arixaWork02/arizaWork02-performance*.test.pd
- Focus on texture and heterophony

21M.380 Music and Technology: Live Electronics Performance Practices
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