

Creative Electronics Laboratory  
Instructor: Lorin Edwin Parker  
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This course intends to build a foundation for artistic experimentation with science, circuitry and invention. Each student will begin a durable final project utilizing a technique or idea covered in the class. However, the ultimate goal is to demystify the world of incomprehensible, magical, mundane and ubiquitous technology to encourage artists to explore these new realms without fear or reservation. To think about technology in different ways. What is possible, and where does one start?

Participation will be divided into Lectures and independent lab time. Lab time can be scheduled with Lorin for ongoing help and individual instruction. B303 will be available on an ongoing basis.

### **Lectures:**

1. **The Architect:** What is possible? What are the aesthetic concerns? **Foundational knowledge.** Demonstration activities. Discussion of projects. Resources for research.
  2. **The Nervous System:** The technological identity. Ubiquitous technology and reconceptualization. **Sensors** -- the anatomy of cybernetics, mechatronics, and communication. Seeing, hearing, feeling through alternate conduits. Hands on: Building an oscillator and making it touch / light sensitive.
  3. **The Voice:** Designs that speak to us in meaningful ways. The hacker and the designer. Speakers, televisions, video, hi-fi and lo-fi, the corpus. Simple individual projects should be developing.
  4. **The Expression:** The goal of most art is expression or communication. How technological art fulfills this end. Seeing the forest for the trees: pacing oneself. Patience. Understanding your limits and how you can surpass them. **Presentations of work in progress or completed. Group installation instrument project.**
- **Optional:** Techniques labs (TBA): Analog vs. Digital. Expanded practice. Prototyping skills. Microcontrollers. CAD and computer simulation. Or any other topic requested by students. Small group or individuals...

### Required Tools:

Wire stripper  
Small angled wire snips  
Needle nose pliers or hemostat  
Solderless breadboard  
Roll of 22AWG solid wire

bag of alligator clips

Optional: Soldering Iron  
Prototyping "perf-board"  
Solder  
Roll of 22AWG stranded wire  
Project Parts. Case Parts.