

Curriculum Review: Electronics Projects I : FA23

I. Electricity Introduction:

- Definitions, electrical properties, terms, examples of artist(s) projects
- Setting up breadboards, multimeters, power supplies, etc.

II. Discrete component introductions:

- Resistors, transistors, LEDs
- hardware introduction: Switches

III. The Voltage Divider and Sensors:

- Light sensitive switch
- Variable resistance: Potentiometers, Photoresistors

IV. Resistor-Capacitor circuits (timing):

- Capacitors and 2-transistor oscillator

V. Introduction to ICs (the 555)

- IC circuit for a timer, diodes
- IC circuit for an oscillator

VI. 555 as Servo Motor controller and Visiting Artist

- Jason Sanford

VII. Soldering and Working with Kits:

- IR Light barrier Kit
- LED chase
- Robot voice

VIII. Beginning Kinetic projects

- DC motors and solenoids

IX. Second week of Kinetic Projects

- Introduction of Project Description

X. Visiting Artist: Diane Landry

XI. In-class Work day:

XII. Reflections on success of final projects