

ETY155 - Additional Online Resources

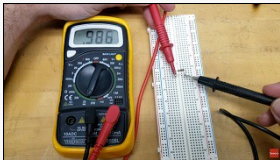
Version 1

Published 2/18/2024 by **Karen Craigs** Last updated 2/18/2024 2:30 PM by **Karen Craigs**

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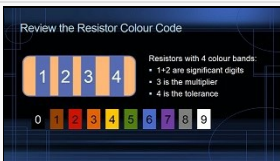
Videos from Lab Work:



<http://youtu.be/Fqh6aaHBM6E>

Lab Introduction

SEMET



<http://youtu.be/yVtX7-1mmh4>

Lab Kit Tips - How To Organize Your Toolkit

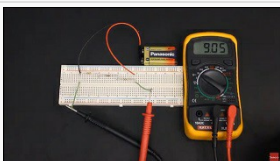
kekaroo



<http://youtu.be/IN8FkO7zRWk>

Breadboarding and Resistance

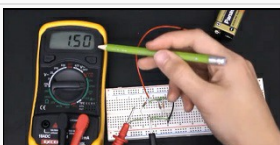
SEMET



<http://youtu.be/7Uf8193oQAE>

Series Circuits Measurements (Voltage and Current)

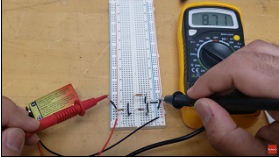
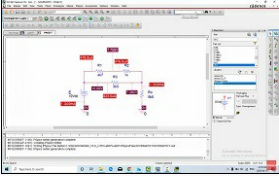
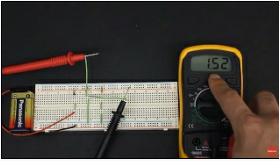
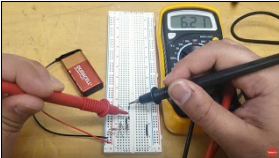
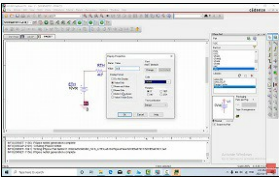
SEMET



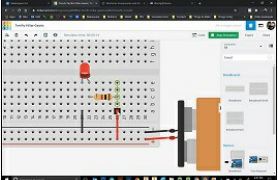
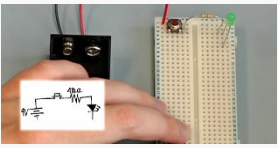
<http://youtu.be/hLKYI61ulAA>

Parallel Circuits Measurements (Voltage and Current)

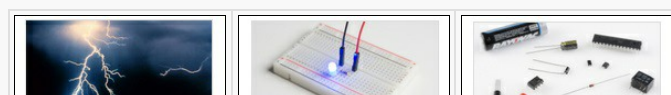
SEMET

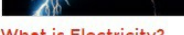
	<p>http://youtu.be/FovggK_hE6s</p> <p>Series-Parallel Circuits Measurements (Voltage and Current)</p> <p>SEMET</p>
	<p>http://youtu.be/llkzWQ-NbU</p> <p>OrCAD Simulation 1 (Series-Parallel Circuit)</p> <p>SEMET</p>
	<p>http://youtu.be/sxBPcc4OVqU</p> <p>Superposition Theorem</p> <p>SEMET</p>
	<p>http://youtu.be/2rRAfsUczK0</p> <p>Thévenin Theorem</p> <p>SEMET</p>
	<p>http://youtu.be/P30Bxfm4sEs</p> <p>OrCAD Simulation 2 (Thévenin and Max Power)</p> <p>SEMET</p>

How to Use a Breadboard:


	<p>http://youtu.be/LrOM2GABK1g</p> <p>Introduction to Tinkercad Circuits & Breadboarding - Part 1</p> <p>Remi Wauthy</p>
	<p>http://youtu.be/vJUX9cvyYjU</p> <p>How to Wire Circuits from Schematics</p> <p>Parallax Inc.</p>

SparkFun Tutorials:






What is Electricity?
We can see electricity in action on our computers, lighting our houses, as lightning strikes in thunderstorms, but what is it? This is not an easy question, but this tutorial will shed some light on it!



What is a Circuit?
Every electrical project starts with a circuit. Don't know what a circuit is? We're here to help.




Polarity
An introduction to polarity in electronic components. Discover what polarity is, which parts have it, and how to identify it.



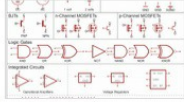
Working with Wire
How to strip, crimp, and work with wire.




How to Use a Breadboard
Welcome to the wonderful world of breadboards. Here we will learn what a breadboard is and how to use one to build your very first circuit.



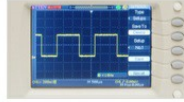
PCB Basics
What exactly IS a PCB? This tutorial will breakdown what makes up a PCB and some of the common terms used in the PCB world.




How to Read a Schematic
An overview of component circuit symbols, and tips and tricks for better schematic reading. Click here, and become schematic-literate today!



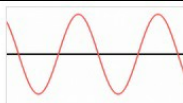
How to Use a Multimeter
Learn the basics of using a multimeter to measure continuity, voltage, resistance and current.



How to Use an Oscilloscope
How to work the dials and buttons on an oscilloscope, and a glossary of the o-scope lexicon.




Electric Power
An overview of electric power, the rate of energy transfer. We'll talk definition of power, watts, equations, and power ratings. 1.21 gigawatts of tutorial fun!



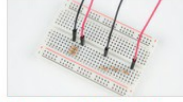
Analog vs. Digital
This tutorial covers the concept of analog and digital signals, as they relate to electronics.




Capacitors
Learn about all things capacitors. How they're made. How they work. How they look. Types of capacitors. Series/parallel capacitors. Capacitor applications.



Resistors
A tutorial on all things resistors. What is a resistor, how do they behave in parallel/series, decoding the resistor color codes, and resistor applications.



Series and Parallel Circuits
An introduction into series and parallel circuits.



Voltage Dividers
Turn a large voltage into a smaller one with voltage dividers. This tutorial covers: what a voltage divider circuit looks like and how it is used in the real world.

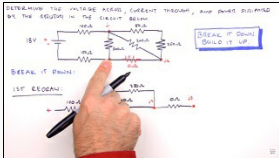
Circuit Analysis Explanations:



<http://youtu.be/mvuHsu8S6v8>

Volts, Amps, and Watts Explained

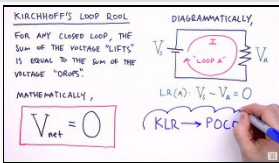
Techquickie



<http://youtu.be/-PiB2Xd3P94>

How to Solve Any Series and Parallel Circuit Problem

Jesse Mason



http://youtu.be/SKdK_L4jbV0

Review Kirchhoff's Laws

Jesse Mason

How to Use Equipment:

<http://youtu.be/bF30yQ3HwFU>

- Multimeter Tutorial

<http://youtu.be/sKuPd3XYwuA>

- How to Measure V, R, and I with a DMM

http://youtu.be/zb7WHaL_dz8

- The Basics of a DMM

<http://youtu.be/b4jLZWiaoQ0>

- Digital Power Supply Demonstration

<http://youtu.be/w99Q23mUEZg>

- Get -12V and +12V from a Dual Power Supply

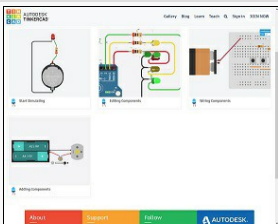
<http://youtu.be/CzY2abWCVTY>

- How to Use an Oscilloscope

<http://youtu.be/8VEg6L2QG5o>

- AC vs DC on the Oscilloscope

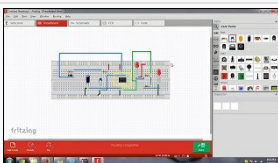
Software Tutorials:



<https://www.tinkercad.com/learn/>

Tinkercad Lessons - Circuits


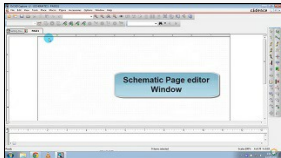
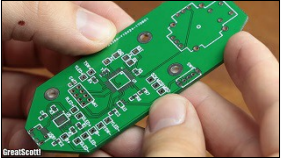
AutoDesk Tinkercad



<http://youtu.be/hZkenZgyDZ0>

Fritzing Tutorial 1 | Breadboard and Schematic views

CWAIN Microsystems

	<p>http://youtu.be/vaCVh2SAZY4 Introduction to KiCad (Part 1 of 4) <i>Digi-Key</i></p>
	<p>http://youtu.be/NU8i39HZTik Orcad Tutorial 1 Getting started (Part 1 of 18) <i>India Engineered</i></p>
	<p>http://youtu.be/35YulLUIfGs From Circuit Idea to Schematic to PCB Design <i>GreatScott</i></p>

Advanced Search Topics:

<p>http://youtu.be/BclDRet787k</p>	<p>– AC vs. DC</p>
<p>http://youtu.be/ZjwzpoCiF8A</p>	<p>– How Transformers Work</p>
<p>http://youtu.be/VucsoEhB0NA</p>	<p>– Transformer Animation</p>
<p>http://youtu.be/B8CPGiK59f8</p>	<p>– The Basics of Inductance</p>

- [Electrical Resistance](#)
- [Electric Potential Difference](#)
- [Electrical Current](#)
- [Electrical Energy and Power](#)
- [Conductors, Insulators, Semiconductors](#)
- [Electrostatics](#)
- [Electromagnetism](#)
- [Capacitance](#)
- [Inductance](#)

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tags : ety155, lin155