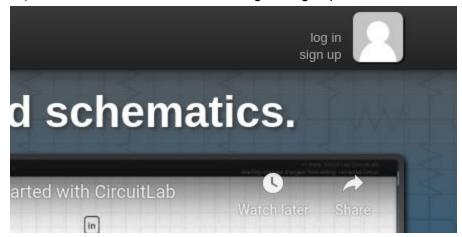


## **Getting Started with CircuitLab**

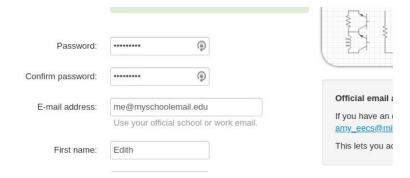
This guide is intended for students and staff of institutions that have purchased the CircuitLab Academic Site License.

## **New Users**

1. If you don't have a CircuitLab account simply create one by going to <a href="https://www.circuitlab.com/">https://www.circuitlab.com/</a> and clicking the sign up link.



2. Make sure to use your institutional email address when signing up. This will ensure your account is covered by your school's site license.



- 3. Once you sign up we will send you an email to verify your email address. You must click the link in the email sent you. If we are unable to verify your email your license will not activate.
- 4. Visit this URL: <a href="https://www.circuitlab.com/accounts/eduverify/">https://www.circuitlab.com/accounts/eduverify/</a> to finish the site license activation process.

## **Existing Users**

If you already have a CircuitLab account that uses your institution's email address there is no need to create a new account.

1. Visit this URL: <a href="https://www.circuitlab.com/accounts/eduverify/">https://www.circuitlab.com/accounts/eduverify/</a> to activate the site license on your account.

## Getting Familiar with CircuitLab

CircuitLab is a powerful general-purpose <u>circuit simulator</u>. We have put together a few resources to help you get started.

- 1. Watch our getting started video: <a href="https://youtu.be/f52GV1IpwVk">https://youtu.be/f52GV1IpwVk</a> This video covers the basics of using CircuitLab.
- 2. Watch the following video tutorials that explain different aspects of using CircuitLab to explore circuits.
  - a. <a href="https://youtu.be/MecTbdskiFw">https://youtu.be/MecTbdskiFw</a> Rotate components, and use named nodes to label inputs and outputs. Graph waveforms in the time domain and use Bode plots to visualize a filter's transfer function in the frequency domain.
  - b. <a href="https://youtu.be/CbmKl9ncpJ8">https://youtu.be/CbmKl9ncpJ8</a> Build an inverting amplifier circuit. Learn and apply some fundamental properties of op-amps. Simulate an op-amp in negative feedback configuration.
  - c. <a href="https://youtu.be/aAcEbDk\_w6c">https://youtu.be/aAcEbDk\_w6c</a> Use the DC sweep feature in CircuitLab to characterize the behavior of a circuit across many values of one parameter (a common real world design tactic).
  - d. <a href="https://youtu.be/VL7AYPbENNw">https://youtu.be/VL7AYPbENNw</a> Work with digital components. Use the Advanced Graphing features in CircuitLab to visualize multiple digital waveforms.
- 3. Explore the example circuits for examples of specific use cases https://www.circuitlab.com/user/CircuitLab/
- 4. Go deeper: Read the <u>electronics textbook https://ultimateelectronicsbook.com/</u> that combines in-depth topics with interactive simulations.

Thank you and good luck on your journey into electronics!