

Schematic Creation and Simulation using eSim

Spoken Tutorial Project

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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Learning Objectives

In this tutorial, using eSim we will learn to-



Learning Objectives

In this tutorial, using eSim we will learn to-

- ▶ Create circuit schematic



Learning Objectives

In this tutorial, using eSim we will learn to-

- ▶ **Create circuit schematic**
- ▶ **Generate spice netlist**



Learning Objectives

In this tutorial, using eSim we will learn to-

- ▶ Create circuit schematic
- ▶ Generate spice netlist
- ▶ Convert spice netlist to ngspice format



Learning Objectives

In this tutorial, using eSim we will learn to-

- ▶ Create circuit schematic
- ▶ Generate spice netlist
- ▶ Convert spice netlist to ngspice format
- ▶ Simulate the netlist.



System Requirements

- ▶ **Ubuntu Linux 16.04**
- ▶ **eSim version 1.1.2.**



Prerequisites

To practice this tutorial, basic knowledge of

- ▶ **Analog and Digital electronics is required.**



Launch eSim through terminal

- ▶ You can also open eSim from the terminal.
- ▶ Press Ctrl, Alt and T keys together.
- ▶ Type esim and press Enter.



Device Models and Subcircuits

- ▶ **Simulating circuits involving semiconductor devices and subcircuits.**



Download Code File

- ▶ **This file is available in the Code Files link, please download and save this file to your Desktop.**



Summary

In this tutorial, we learnt how to,

- ▶ **Create circuit schematic.**
- ▶ **Generate spice netlist.**
- ▶ **Convert spice netlist to ngspice format.**
- ▶ **Simulate the netlist**



Forum to answer questions

- ▶ **Do you have questions in this Spoken Tutorial?**
- ▶ **Choose the minute and second where you have the question.**
- ▶ **Explain your question briefly.**
- ▶ **Someone from the FOSSEE team will answer them. Please visit**

<http://forums.spoken-tutorial.org/>



Forum to answer questions

- ▶ Questions not related to the Spoken Tutorial?
- ▶ Do you have general / technical questions on the Software?
- ▶ Please visit the FOSSEE Forum
<http://forums.fossee.in/>
- ▶ Choose the Software and post your question.



Acknowledgements

- ▶ **Spoken Tutorial Project is a part of the Talk to a Teacher project**
- ▶ **It is supported by the National Mission on Education through ICT, MHRD, Government of India**
- ▶ **More information on this Mission is available at**

<http://spoken-tutorial.org/NMEICT-Intro>



THANK YOU!

For more Information, visit our website
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