

# Designing Printed Circuit Board using Oscad

**Talk to a Teacher**

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

**National Mission on Education through ICT**

**<http://www.sakshat.ac.in>**

**Rakhi R, Rupak Rokade**

**IIT Bombay**

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# Learning Objectives

- ▶ Create netlist for PCB from schematic



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- ▶ Create netlist for PCB from schematic
- ▶ Map footprints to components



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- ▶ Create netlist for PCB from schematic
- ▶ Map footprints to components
- ▶ **Generate PCB layout**



# Sequence of Steps Adopted

- Create a new project



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- ▶ **Create a new project**
  - ▶ **Import and modify RC circuit schematic created in the tutorial**
- Schematic Creation and Simulation using Oscad**



# Sequence of Steps Adopted

- ▶ **Create a new project**
- ▶ **Import and modify RC circuit schematic created in the tutorial**  
**Schematic Creation and Simulation using OScad**
- ▶ **Create PCB Layout for RC circuit**



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# System Requirements

- ▶ **Ubuntu 12.04 OS**





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- ▶ **Ubuntu 12.04 OS**
- ▶ **Oscad 1.0**



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# Prerequisites

- Knowledge of schematic creation using Orcad



# Prerequisites

- ▶ Knowledge of schematic creation using Oscad
- ▶ Watch the tutorial Schematic Creation and Simulation using Oscad available at <http://spoken-tutorial.org>



# Prerequisites

- ▶ Knowledge of schematic creation using Oscad
- ▶ Watch the tutorial **Schematic Creation and Simulation using Oscad** available at <http://spoken-tutorial.org>
- ▶ **RC project created in the above tutorial**



# Summary

- ▶ Create netlist for PCB layout
- ▶ Map footprints to components
- ▶ Lay tracks and create PCB layout



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# Assignment

- ▶ Watch the KiCad tutorials on PCB design available at <http://spoken-tutorial.org>
- ▶ Reproduce the layout of astable multivibrator using Oscad



# Assignment

- ▶ **Oscad uses Kicad for PCB layout creation**
- ▶ **Footprint editor in Oscad = CvPCB in KiCad**
- ▶ **Layout editor in Oscad = PCBnew in KiCad**



# About the Spoken Tutorial Project

- ▶ Watch the video available at [http://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](http://spoken-tutorial.org/What_is_a_Spoken_Tutorial)
- ▶ It summarises the Spoken Tutorial project





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- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



# Spoken Tutorial Workshops

## The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to [contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)



# Acknowledgements

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- ▶ 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>

