

# Lab 2: Introduction to Custom Layout Design

In this lab, we designed an inverter using xschem by drawing a schematic and making a symbol. Then we verified it using ngspice. Then we designed the inverter layout using magic. I don't have a specific format in mind. So if you want to include more information, that's okay too.

Lab tasks:

- We built an inverter schematic and symbol. Did verification with ngspice.
- Designed inverter layout
- Verified that the layout is drc free
- LVS matches

## Report guideline:

There needs to be 4 sections.

**Introduction:** In a few words, describe what this lab is about

**Methodology:** Describe briefly how you built the inverter. Then how you built the layout. Briefly describe what layers you used to get the inverter. Provide screenshots of your schematic, symbol, testbench schematic and layout.

**Result:** Show me the result of your verification of schematic. From layout, give me screenshots showing it's drc clean and LVS matches.

**Discussion:** Describe in a few words what you learned from this analysis, and the challenges you faced.