

Homework

- Given the technology parameters of our 180nm CMOS process, take a device of $W/L = 1.0 / 0.18 \text{ um}$. Simulate, print and plot I_{ds} vs. V_{gs} for a range of V_{gs} values.
- Read the paper [VTHextract.pdf](#) (in Moodle under Lecture Material) and write a program to extract the value of V_{th} using the methods explained in the paper in paragraphs 2.1 and 2.2.

Use:

Technology file for our TSMC180nm tech

Schematic capture program or write a netlist by hand
with a text editor

LTSpice Simulator