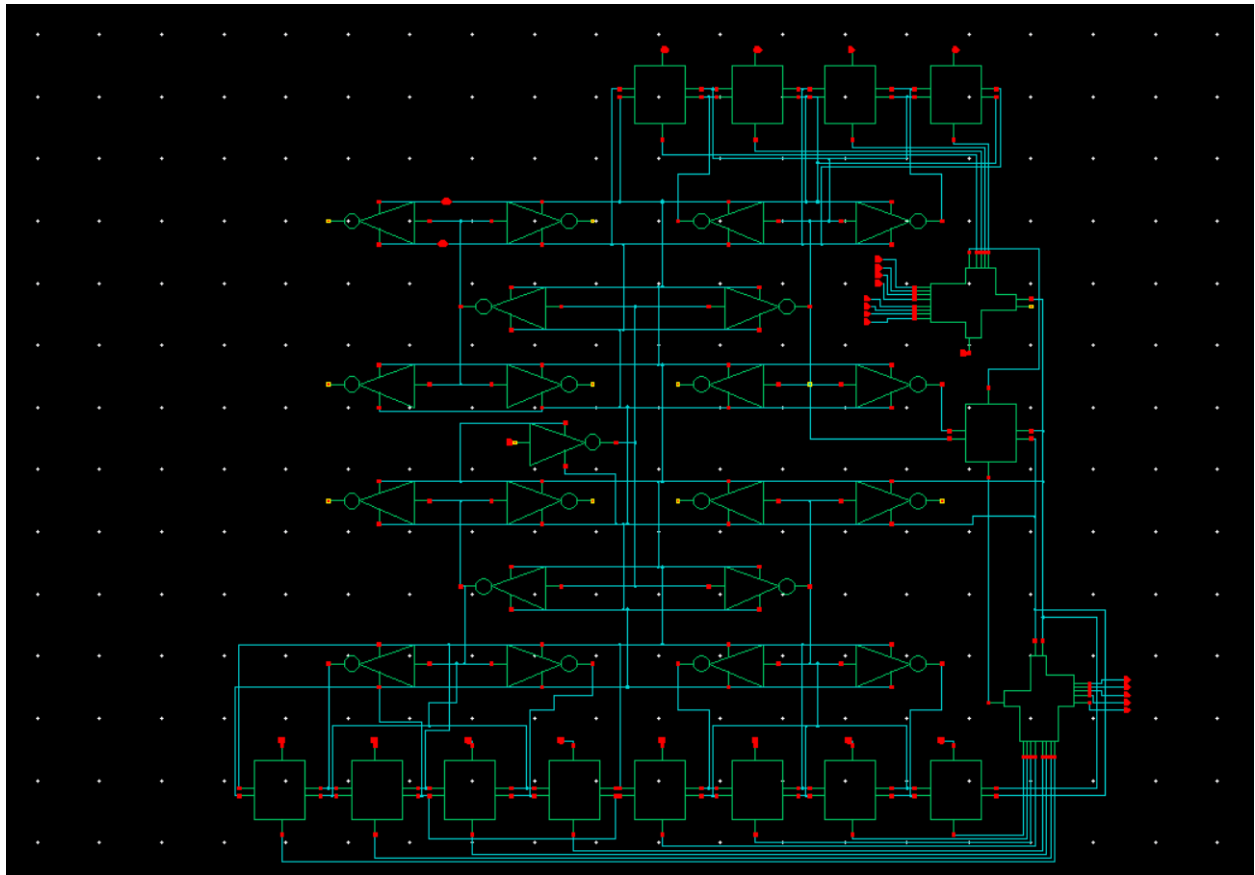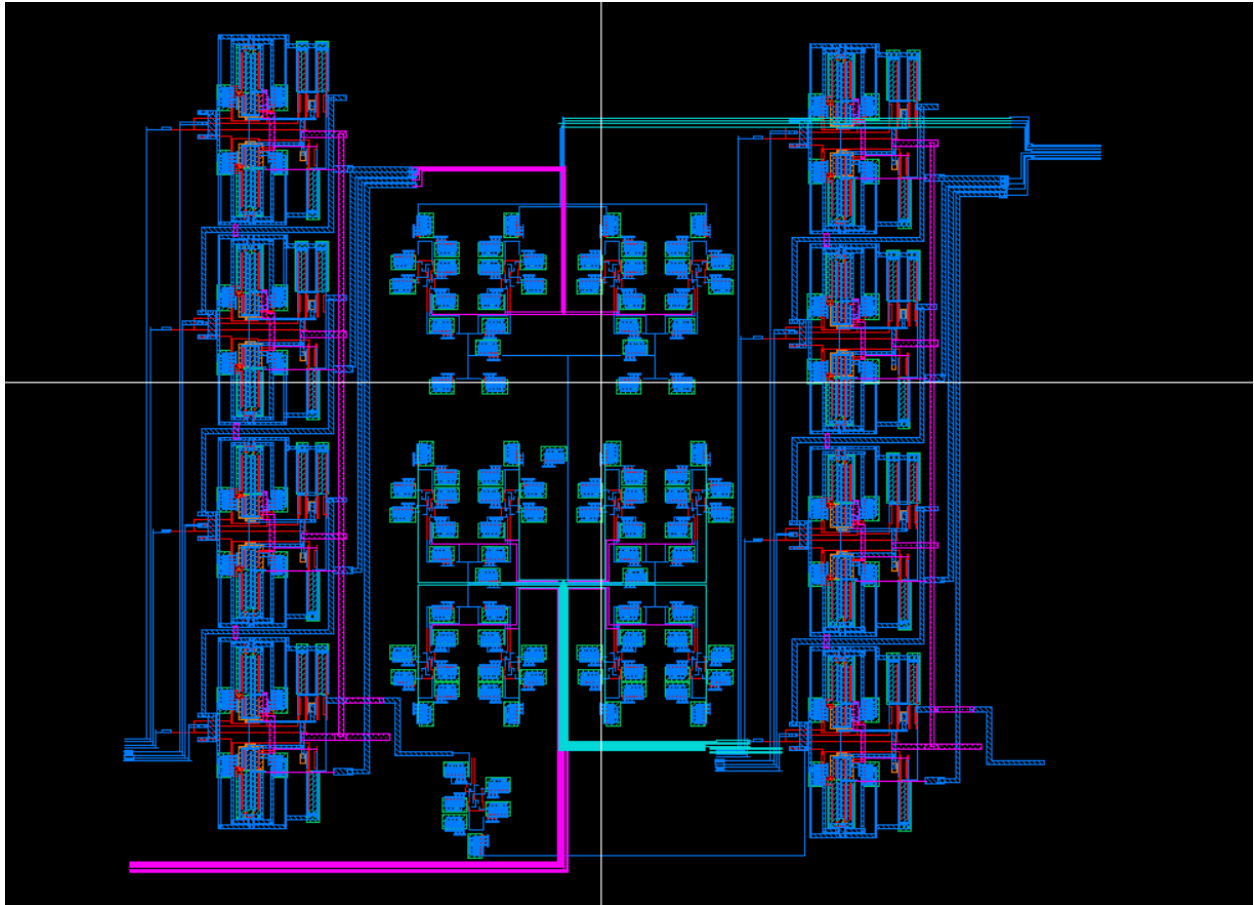ECEN 454 - Lab 8 Report

Luke Lopez

11/19/2025

Schematics

Layout

Guide to design:

The two columns are the 4bit adders, the one on the left handles bits 0->3.

The results of these bit are stored in the 4 D-FF on the top most row. The Cout is at the bottom right of the first 4b adder which goes through a D-FF to the Cin of the second 4b adder. The inputs of bits 4->7 are in M2 that go directly to the D-FF on the lower half of the H-Bridge. The outputs are then fed with M3 wires back into the 2nd 4b adder. All outputs are placed on the top right of the layout, and the Cout is placed at the bottom right.