

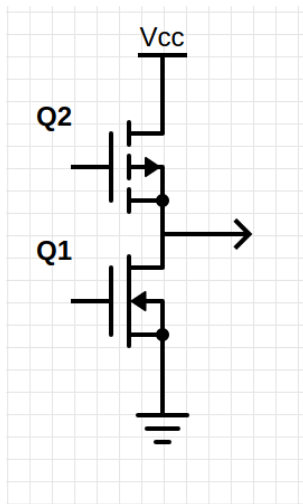
Lab Report 1

CPE282 Fall 2020

Brennen Green

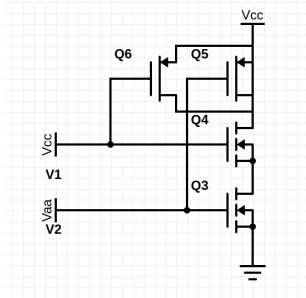
1 CMOS

1.1 Inverter:



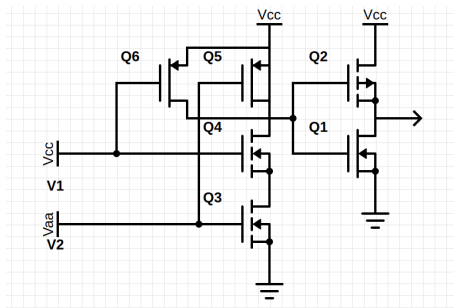
This implementation proved to be a learning experience. While my theoretical design from the prelab was correct, I lacked some knowledge regarding the proper orientation of the MOSFETs. Once I cleared up the issue, and properly oriented the source and drains of the MOSFETs it worked like a charm.

1.2 NAND:



This implementation was rather smooth sailing, my implementation followed my design from the prelab identically and worked first try.

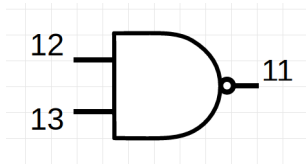
1.3 AND:



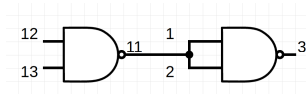
There wasn't much to this implementation at all, just simply routed a new wire from the output of my NAND to the input of my Inverter and we were good to go.

2 TTL

2.1 NAND:



2.2 AND:



It's worth grouping these two into one paragraph because they were very straight forward. I followed my prelab to the T and it worked on the first try. The TTL's are really easy to work with.