

ECE 204L - STATE MACHINES - LAB 25
DESIGN OF A SERIAL 2's COMPLEMENTER

WINTER 2004

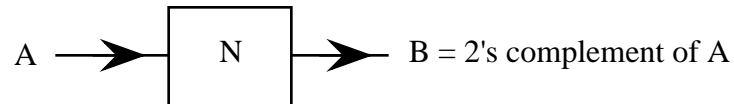
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OBJECTIVE

The objective of this lab is to design, build and test a serial 2's complementer

LAB

1. Design and build a sequential circuit as follows



for calculating the 2's complement of A. Design the circuit so that as each bit of the 2's complement number A is clocked into N the next bit of its 2's complement appears at the output. Test your circuit with

- a. $A = 10011^2$
- b. $B = 10010^2$
- c. $C = 00101^2$