

## ECE 271 lab

In this lab you will build several counter circuits. For each circuit you will need to verify the count sequence by connecting the output to a logic analyzer. You must turn in a hardcopy of the logic analyzer output for each circuit built.

1. Build a 3-bit ring counter.
2. Build a 3-bit twisted ring counter.
3. Build a 2-bit binary counter.
4. Connect the logic analyzer to the Q-bar outputs of your binary counter. What type of counter is this?
5. Convert your binary counter into a modulo-3 counter.
6. Build a counter with the count sequence 0, 3, 2, 1, 0, 3, ...