

## EE 231 - Homework 9

Due Nov. 2 2018

Design a counter as a finite state machine. The specification for the counter is

- The counting sequence is 0,1,2,3,0,1,... (modulo 4 counter)
- There exists an input signal  $w$ . The value of this signal is considered during each clock cycle. If  $w = 0$ , the present count remains the same; if  $w = 1$ , the count is incremented.

1. Implement the counter using D-Type Flip-Flops
2. Implement the counter using JK-Type Flip-Flops