## **ECE 551**

## Homework #4

Due: Tuesday April 18 9:30am

Please Note: For this homework, you must:

- Use <u>informative</u> module/signal/port names whenever at all reasonable to do so.
- Work as a team and submit only one

## Problem 1 (30pts) Motor Controller Design

See the Project Specification and implement the motor controller module. Submit to the dropbox:

- Your motor controller design motor cntrl.v
- Your motor controller design testbench motor cntrl tb.v
- Proof of some form that you ran the testbench motor\_cntrl\_waveform.png

## Problem 2 (70pts) Barcode Reader Design

See the Project Specification and implement the barcode reader module. Submit to the dropbox:

- Your motor controller design barcode.v
- Your motor controller design testbench barcode tb.v
- Proof of some form that you ran the testbench barcode\_waveform.png