ECE 3544: Digital Design I
Project 3 (Part B): Design and Synthesis of a Synchronous Finite State Machine

Student Name: Jacob Abel

Honor Code Pledge: I have neither given nor received unauthorized assistance on this assignment.

Grading: The design project will be graded on a 100 point basis, as shown below:

Manner of Presentation (30 points)

_____ Completed cover sheet included with report (5 points)

_____ Organization: Clear, concise presentation of content; Use of appropriate, well-organized sections (15 points)

_____ Mechanics: Spelling and grammar (10 points)

Technical Merit (70 points)

_____ General discussion: *Did you describe the objectives in your own words? Did you discuss your other conclusions and the lessons you learned from the assignment?* (5 points)

_____ State machines: *Does your state diagram for the* `keypressed` *module correctly represent its behavior? Did you address the questions on structuring state machines in Verilog?* (10 points)

_____ Implementation discussion: *Did you discuss the approach you took to modifying the counter logic?* (5 points)

_____ Testing discussion: *What was your approach to formulating your test benches? How did you verify the correctness of the modules you designed?* (5 points)

_____ Supporting figures: *Waveforms showing correct operation of the top-level module.* (10 points)

_____ Supporting files: *Do the modules pass any tests applied by the grading staff? Modules that do not conform to the requirements of the project specification will receive no credit.* (10 points)

_____ Validation of the final design on the DE1-SOC board (25 points)

_____ **Project Grade**