Experiment #6

Count Up/Down Timer

ECE 367

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Schematic, Program Code, and Logic Diagram attached to the end of report.

User Manual:

To reset the program, press the top button.

To start/pause the timer, press the middle button

To change timer direction, press the bottom button

By default, the timer will count down

Conclusion:

This lab was not too difficult. The circuit required some resistors that were not given to us in the parts kit, but I was able to find the right amount of the required resistors in a previous course’s lab kit. Everything was implemented as asked in the lab experiment, however, when implementing the indefinite loop for the number input, I was getting an odd glitch on my tens-place LED. Whenever a certain “STAA PORTT” command would execute, the LED would take the new PORTT’s value. At the time of this command, the latch enable would always be low, so I had no idea how to fix this problem.