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I collaborated with Ali, he helped me with my ADC handler because I had a lot of trouble with making it work, but his ideas helped me fix that problem. Additionally, I helped him with some of his logic in his code, and we both bounced ideas off of each other, which benefited both of us as we were both able to fully implement and understand this lab.

This lab was implementing a finite state machine. We did this through using the functions and things we used from Lab 7, where we used event checkers and flagging to debounce, use adc, and the Oled. In this lab, we combined all that we learned in that lab into this lab in order to implement a FSM where we have multiple different events happening, and different outputs for each event. In addition, the states that come with these events are happening at the same time, as we are able to switch modes, or switch time/temp depending on how long we click the same button. This lab was testing how we are able to implement multiple events and multiple states all into one project. And the manner in which we were tested was through the mode switching, between bake, toast, broil, time vs. temp, cooking mode, leds on and turning off, were all the ways that we had to implement this FSM logic.

My approach for this lab was just like how I've approached the other labs. I read the manual very thoroughly first, and then did all the required readings that were said in the manual. Once I did that, I watched videos and did research on FSM and how I would be able to implement it based on the lab manuals instructions. Then, I started following the lab manuals template for the steps to follow when starting to code, so I started with the updateOvenOLED(), and kept following until I finished implementing the lab. What worked well was following the lab manuals steps and instructions because it gave me a good base to start off with. What went wrong was debugging my code, I spent a lot of time debugging my code which I felt I could've done a lot faster if I had been more efficient in my debugging techniques. If I were to do it again, I would be a lot more careful on where I called the updateOvenOLED() function because that caused a lot of unnecessary time debugging. I worked with my collaborator and other students and tutors in Lab, just like I did in other labs who helped me give ideas for debugging, and implementing certain parts of my code that I was stuck on.

My lab ended up pretty good, as all the parts functioned properly, while it definitely could be more clean and efficient, everything ended up working well. Some improvements I could think of is how my ADC works because it works properly, but it could be improved. I spent around 15 hours on this lab, which is around the same time as I've been spending on the labs. I liked how this lab and lab manual was more straightforward and structured than the past lab, which made my life easier when I started coding. I disliked the many new files we had to download while and before coding this lab. I think this was definitely a worthwhile lab though, because I think this FSM was a very useful and important concept I will use in the future. I think the Adc being more clear would make this lab easier. The hardest part for me was the Adc handler. I think the grading distribution does seem fair for this lab. And the lab manual also had enough material for me to start off with, which was something I appreciated because the last lab

wasn't as clear. Finally, I think lecture concepts and Lab sessions helped me understand this lab more.