Katelin Kaneen

Southern New Hampshire University

CS-350-X6152 Emerging Sys Arch & Technology

July 30, 2023

***What is the purpose of the timerCallback() function?***

The purpose of timerCallback() function is to do what it exactly states, calls back for a specific timer, it will automatically go back to the timer when it expires or ends.

***What does period mean in this context?***

Period is a parameter that usually is set to define what duration is within the timer. So in this code we have Timer\_Params, which is the timer parameter. We were to set our state machine to 500000 microseconds for this ‘period’. So in this context about .5 seconds and then call back the timer.

***How does the Timer\_CONTINUOUS\_CALLBACK parameter impact the driver?***

Timer\_CONTINUOUS\_CALLBACK is a never ending loop where a timer will continuously go back to the start of the timer and once it reaches that end it will start over. This parameter impacts the driver because it determines how this timer will operate. For our case, the morse code LED blinking is perfect for this.

***What is gpioButtonFxn0() used for?***

This is where button usage comes into play and this is where I learned my most valuable lesson while developing this code. gpioButtonFxn0() in my code is to turn on the LED, specifically the LED\_0. When the button is pressed it basically turns the state on or off. This can be considered controlled by the interrupt each time the button is pressed.

***What is the purpose of the GPIO\_CFG\_IN\_INT\_FALLING?***

This feature is set specially with the voltage on the GPIO pins. This means that when an interrupt is triggered, the voltage will move up to down to adjust for the change of the interrupt. So when a button is pressed it will adjust that voltage up or down depending on the input.