Module 5: Milestone 3

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1. What is the purpose of the timerCallback() function?

The timer callback function’s purpose is to be called on every tick. This allows the programmer to write the logic they want to be executed at these times. The writers of the timer code can’t know what logic users will wish to write ahead of time, so callback functions are a way to allow the user to add their own custom code.

1. What does period mean in this context?

The period in this context is the time at which the timer call back is fired. It is set in half second intervals which creates the evenly timed transitions of the state machine.

1. How does the Timer\_CONTINUOUS\_CALLBACK parameter impact the driver?

This timer mode causes the timer to repeatedly call the callback function without end. Another timer mode is timer\_one\_shot which only calls the callback function one time. By using the continuous callback function setting, the state machine will run synchronously and indefinitely (ideally) until the device is powered down.

1. What is gpioButtonFxn0() used for?

In the same way that the timer uses a call back to allow the user to insert their code, the GPIO interrupt uses this function as a call back for custom code. GPIO\_setCallback function ties (in this case) button\_0 to this function. Once set, the function will now be called each time the interrupt fires.

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

This configures the specified pin to generate an interrupt on a falling edge, meaning that the interrupt is fired when the signal transitions from a high to a low state.

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