DYNAMIC ARCHITECTURE

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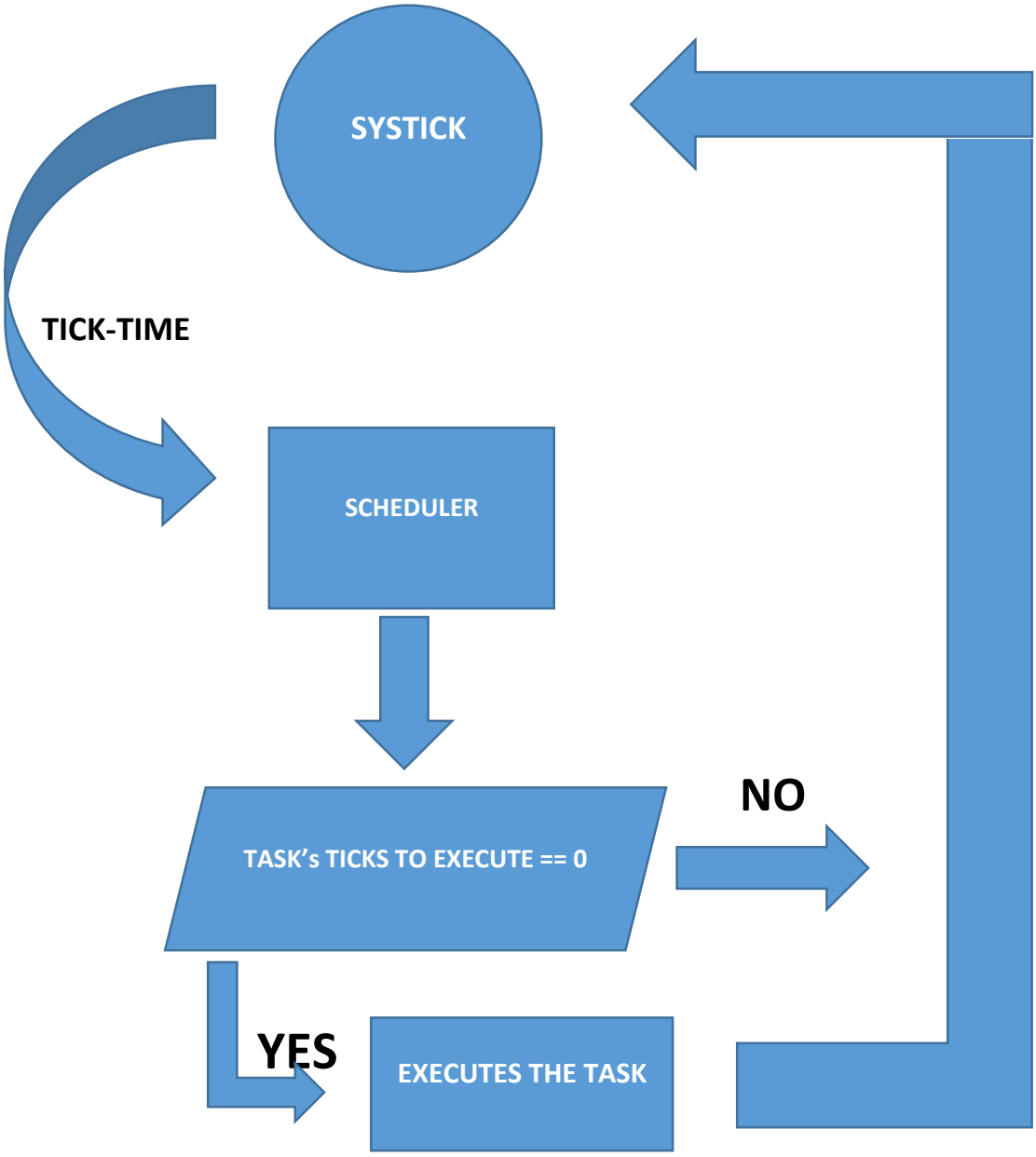
MARCH 28, 2020

Dynamic Architecture:

The implemented scheduler is based on the Systick timer (STK), at first the scheduler initializes the Systick timer with a specific time called the Tick-Time (defined by the user) and it's the time taken each time the scheduler is called to check upon the tasks and either to execute them or not.

These tasks are executed by the scheduler if their time to execute has come (Determined by the periodicity and the first delay).



Tasks added by the scheduler:

Task	LCD_Task
Periodicity	2mS
Description	It keeps checking every 2mS if the initialization is not completed it runs the next initialization command till the initialization is done according to the DataSheet, and if the initialization is done is runs the chosen functionality according to the user

Task	SWITCH_Task
Periodicity	5mS
Description	It keeps checking every 5mS if the current state of the switch is equal the previous state it increments a counter and if not it sets the counter to zero. If the counter reaches 5 it returns this value

Task	APP_COUNTER_Task
Periodicity	120mS
Description	This task keeps checking every 120ms if the switch is pressed or not and if its pressed it increments the value of the counter and updates the number of bytes needed to display this counter's value