Lcd_PeriodicWriteCmd

Start → current func running

check Lcd_status can be accssed or current func run
— No →
— Yes ↓

check if CMD_Part0 Not Completed
— Yes → 1- Clear Rs / 2- Send cmds / 3- Gen High Pulse
— No ↓

check if CMD_Part1 Not Completed
— No →
— Yes ↓

1- sw_timer1--;
— Yes ↓

check sw_timer1 == 0
— No → 1- CMD_Part1 Not Completed / 2- Lcd_status can't be accssed
— Yes ↓

check if CMD_Part1 Not Completed
— Yes ↓

1- Gen Low Pulse / 2- CMD_Part1 Completed
— Yes ↓

check if CMD_Part2 Not Completed
— Yes ↓

1- sw_timer2--;
↓

check sw_timer2 == 0
— No → 1- CMD Not Completed / 2- Lcd_status can't be accssed
— Yes ↓

check if CMD Not Completed
— → 1- CMD Completed / 2- Lcd_status can be accssed / 3- reinitialze global varibale for thhis function
↓

End

Lcd_PeriodicInit

Start

checj lcd_initstatus if it == not completed
— No →
— Yes ↓

check Lcd_status can be accssed or current func run
— NO →
— Yes ↓

check if LCD_Part0 Not Completed
— Yes → 1- some initialization / 2- make LCD_Part0 Completed
— NO ↓

check if LCD_Part1 Not Completed
— Yes ↓

1- Lcd_PeriodicWriteCmd / 2- make LCD_Part1 Completed
↓

End

Any function has a blocking delay like init functio has the same concept to prevent blocking point and keep track of the latest line executed.