

## <ASSIGNMENT 3>

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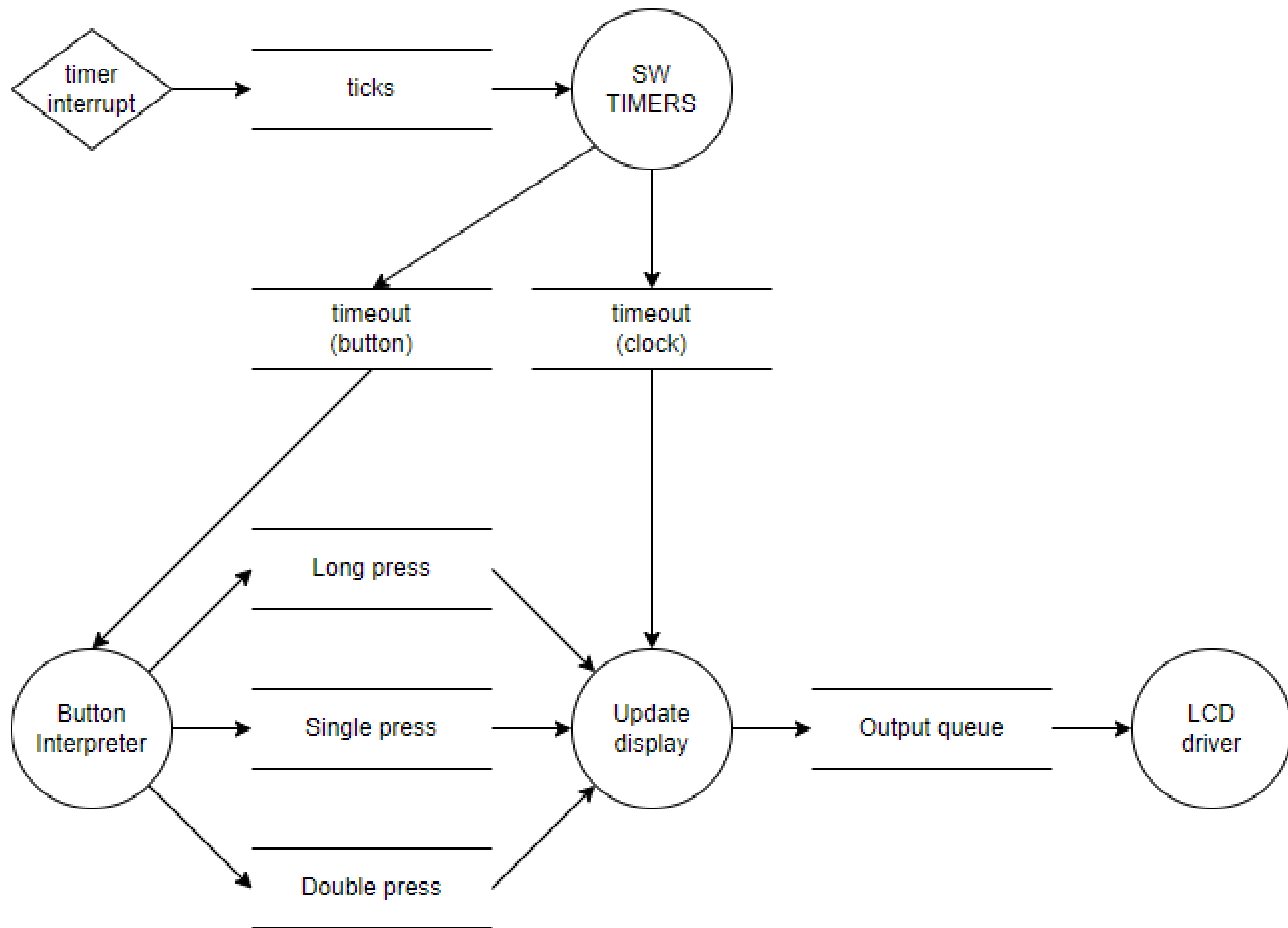
### ***A DIGITAL CLOCK***

- I. Show clock format hh:mm on LCD display
- II. Single press will decrease or increments timer minute
- III. Double press will change the direction of the single press
- IV. Long press will go to normal running clock
- V. When clock is running the colon ( : ) will blink every second



The image features a light blue background with a subtle pattern of concentric circles. In the four corners, there are decorative elements resembling circuit board traces or neural network connections, consisting of thin dark blue lines and small circles.

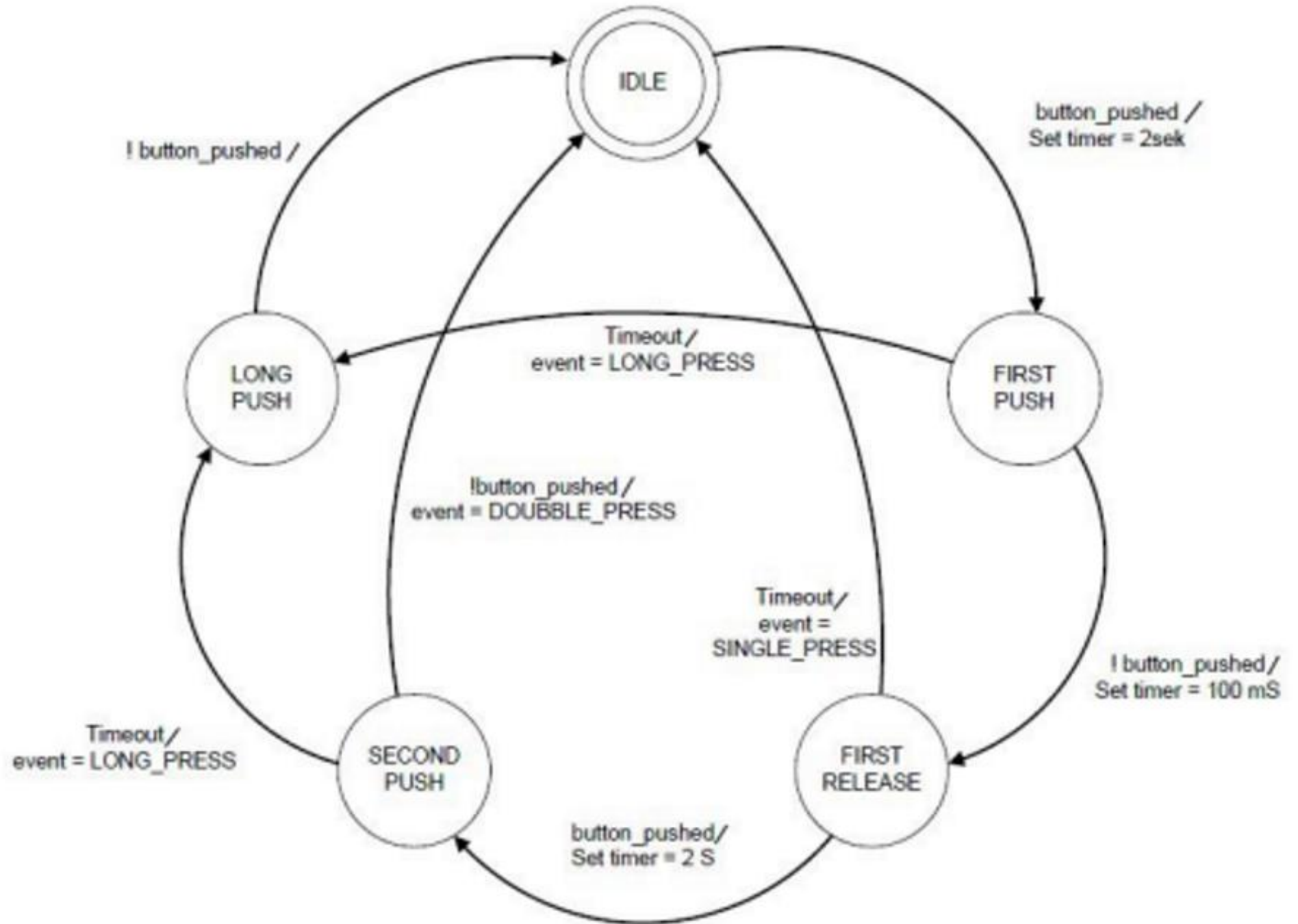
# TASK DIAGRAM



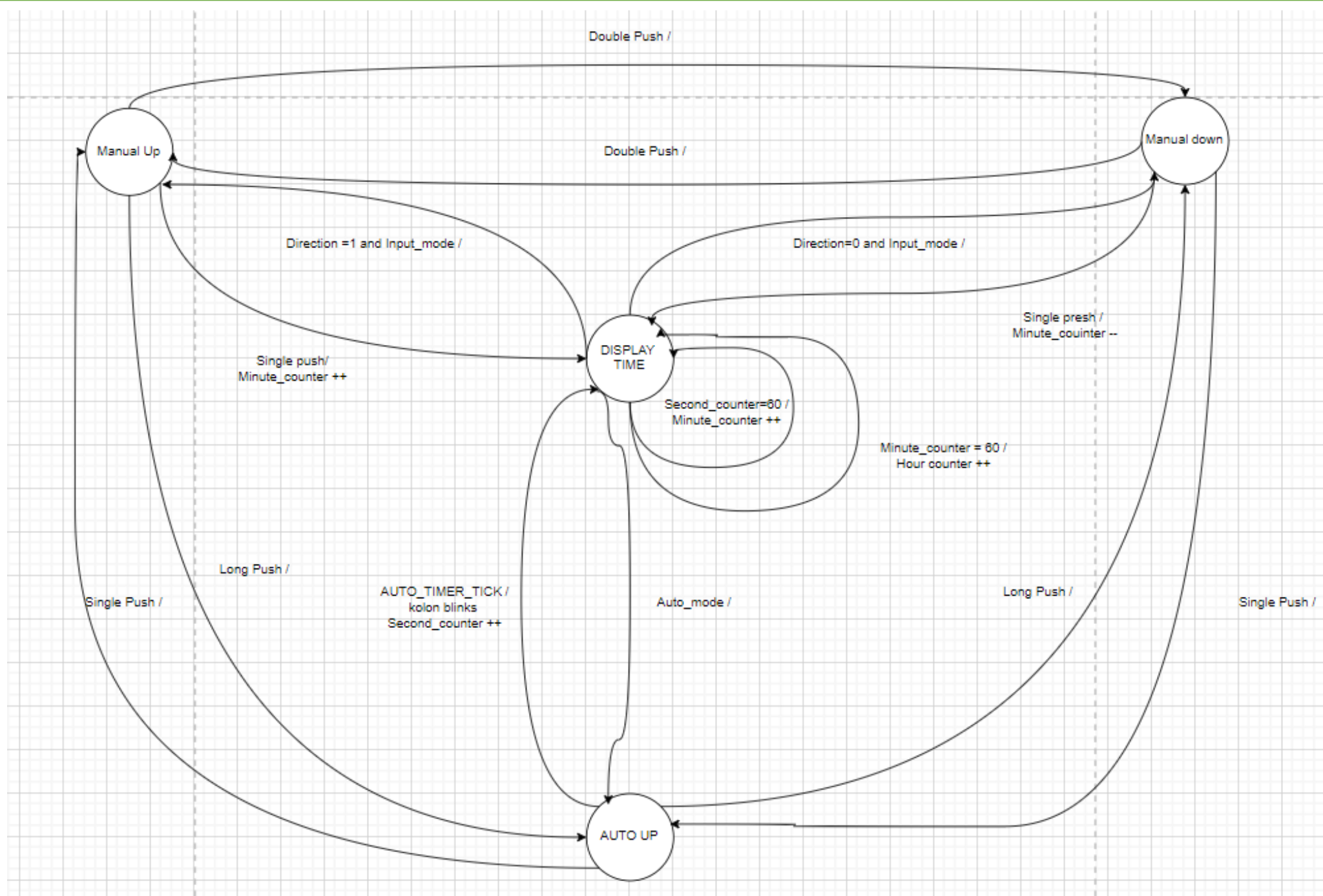
The image features a light blue background with a subtle pattern of concentric circles. In the four corners, there are decorative elements resembling circuit board traces or neural network connections, consisting of thin dark blue lines and small circles.

# MACHINE STATE DIAGRAMS

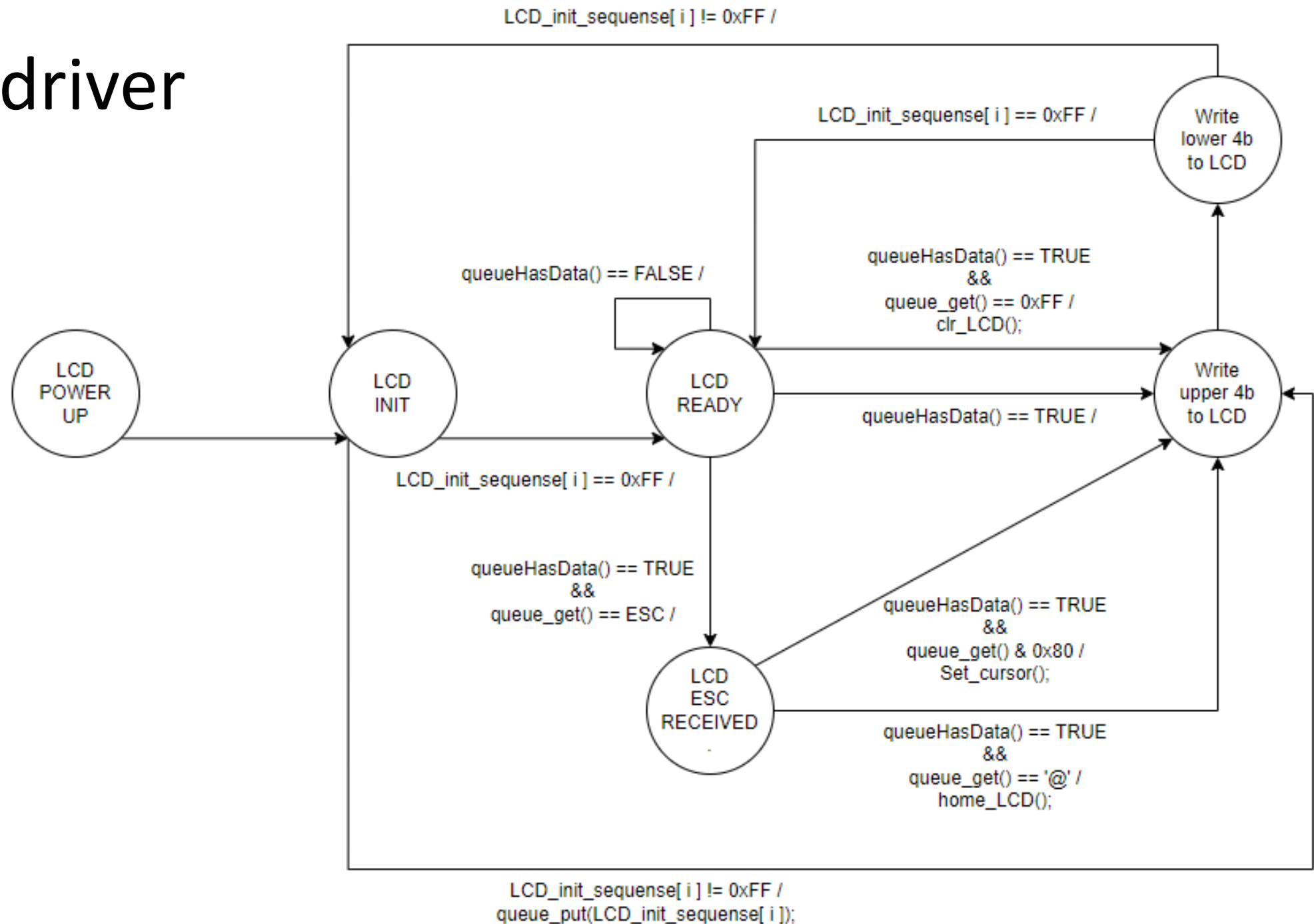
# Button Interpreter



# Update Display



# LCD driver



# SW modules

- ▼ Assignment3
  - > Binaries
  - > Includes
  - > Debug
  - ▼ protected
    - > .c devices.c
    - > .h devices.h
    - > .h emp\_type.h
    - > .c gpio.c
    - > .h gpio.h
    - > .c lcd.c
    - > .h lcd.h
    - > .c leds.c
    - > .h leds.h
    - > .c messages.c
    - > .h messages.h
    - > .c queue.c
    - > .h queue.h
    - > .c swtimers.c
    - > .h swtimers.h
    - > .c systick.c
    - > .h systick.h
    - > .h tm4c123gh6pm.h
  - > targetConfigs
  - > .c button.c
  - > .h button.h
  - > .h events.h
  - > .c main.c
  - > .c strt\_ccs.c
  - > tm4c123gh6pm.cmd



# Demo video

