

Heart Beat

Saturday, December 21, 2019 3:40 PM

In this project we want to make a simple Blinking LED

* Context Diagram

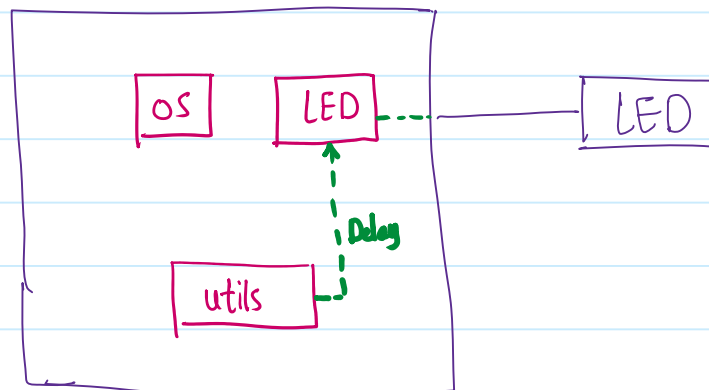


* Requirements:

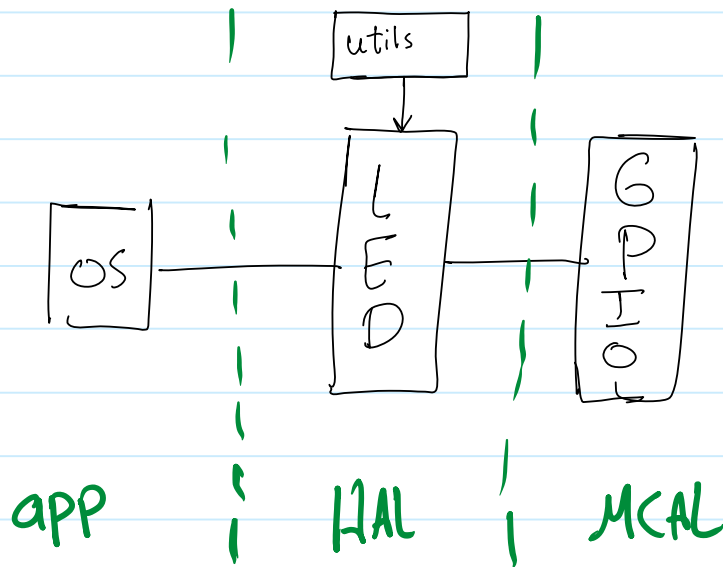
- 1- LED/LEDS Blinking every period of time.

Design

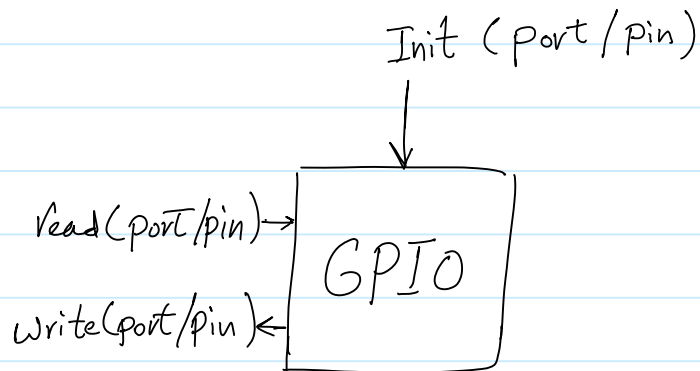
Block diagram



We Can Convert This diagram to layered Diagram



* Detailed Design



Void GPIO_Init_port (Direction Reg Address, direction (I/o))

Void GPIO_Init_pin (Direction Reg Address, pin_number, direction (I/o))

Void GPIO_SetDir_port (Direction Reg Address, direction (I/o))

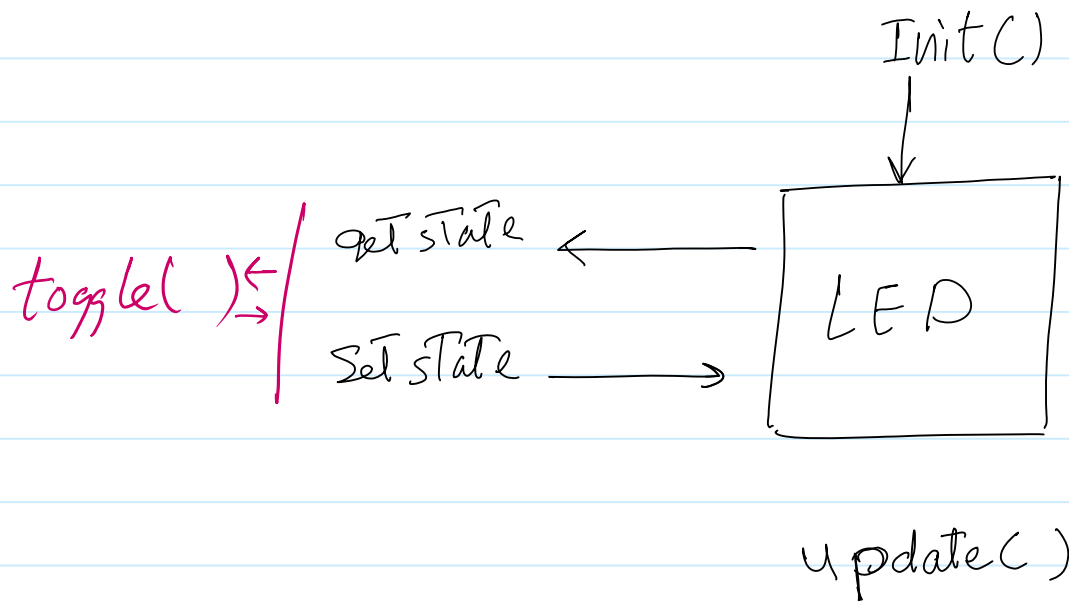
Void GPIO_SetDir_Pin (Direction Reg Address, Pin_number, direction (I/o))

Void GPIO_Write_port (port address, Byte)

Void GPIO_Write_Pin (port address, Pin_number, Byte)

Byte GPIO_Read_port (port address)

Byte GPIO_Read_Pin (port address, Pin_number)



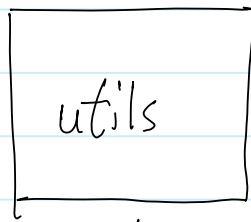
tbyte led_Init(tled, tstate)

tbyte led_get_state(tled)

void led_set_state(tstate)

Void led - update (Void)

Void led - toggle (tled)



Delay

Void utils - Delay (mSeconds)