

UNIFIED  
CONTROLLER

BSP  
(Board Support)

Network Drivers

## COMPONENTS

# UNIFIED CONTROLLER

## UNIFIED CONFIG

BOARD NAME

The unified config contains, all the driver references for the Board and the board name.

GM02S Static instance REF

ESP-WIFI Static instance REF

This unified config struct is then used by the unified controller

GM02S Static instance

ESP-WIFI static instance

Connection Handler

Board support files are used to trivially define new versions of walter.

### WALTER BSP file

```
You, last month | 1 author (You)
1  #ifndef  _WALTER
2  #define  _WALTER_
3  #include <bsp/bsp.hpp>
4  #include <driver/sequansGM02S/gm02s.hpp>
5
6  driver::cellular::gm02sHardwareConfig config = {
7      .uart_no = (uart_port_t)1,
8      .pinRX = 14,
9      .pinTX = 48,
10     .pinRTS = 21,
11     .pinCTS = 47,
12     .pinReset = 45,
13     .baudRate = 115200};
14
15 /**
16  * @brief cellular modem of walter
17  */
18 driver::cellular::gm02s GM02S(config);
19
20 BSP("Walter",GM02S);
21 #endif
```

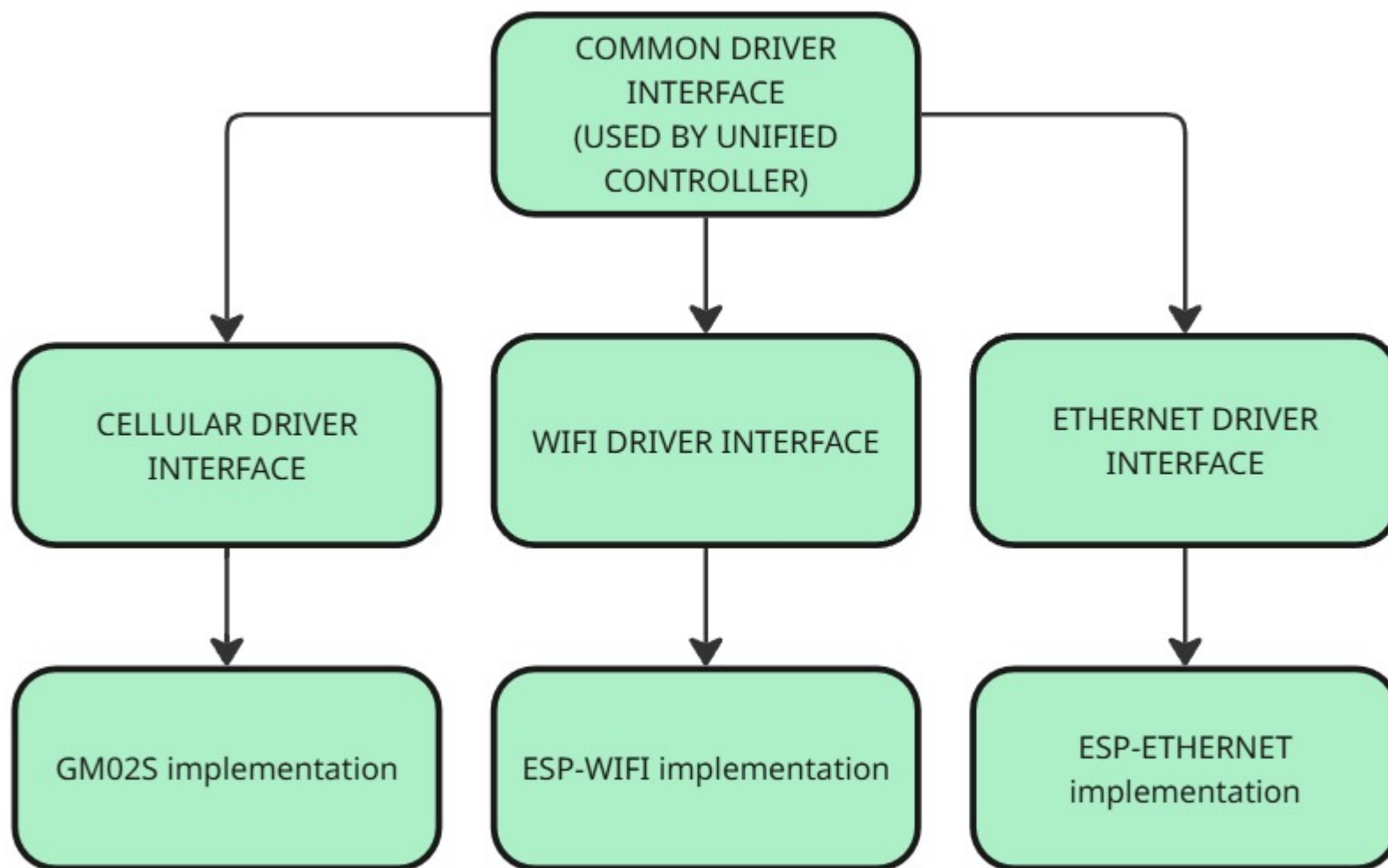
You, 2 months ago • more work has been done on the gm02s driver

### BSP macro to enter the board name and add drivers

```
#define BSP(boardName,...) \
    struct sUnifiedComm \
    { \
        UnifiedController controller; \
        MEMBERNAMES(__VA_ARGS__) \
    }; \
    sUnifiedCommInternal __ucInternal = { \
        .name = boardName, \
        .drivers = DRIVERS(__VA_ARGS__)}; \
    sUnifiedComm uc = { \
        .controller = {&__ucInternal}, \
        MEMBERS(__VA_ARGS__), \
    }; \
#endif
```

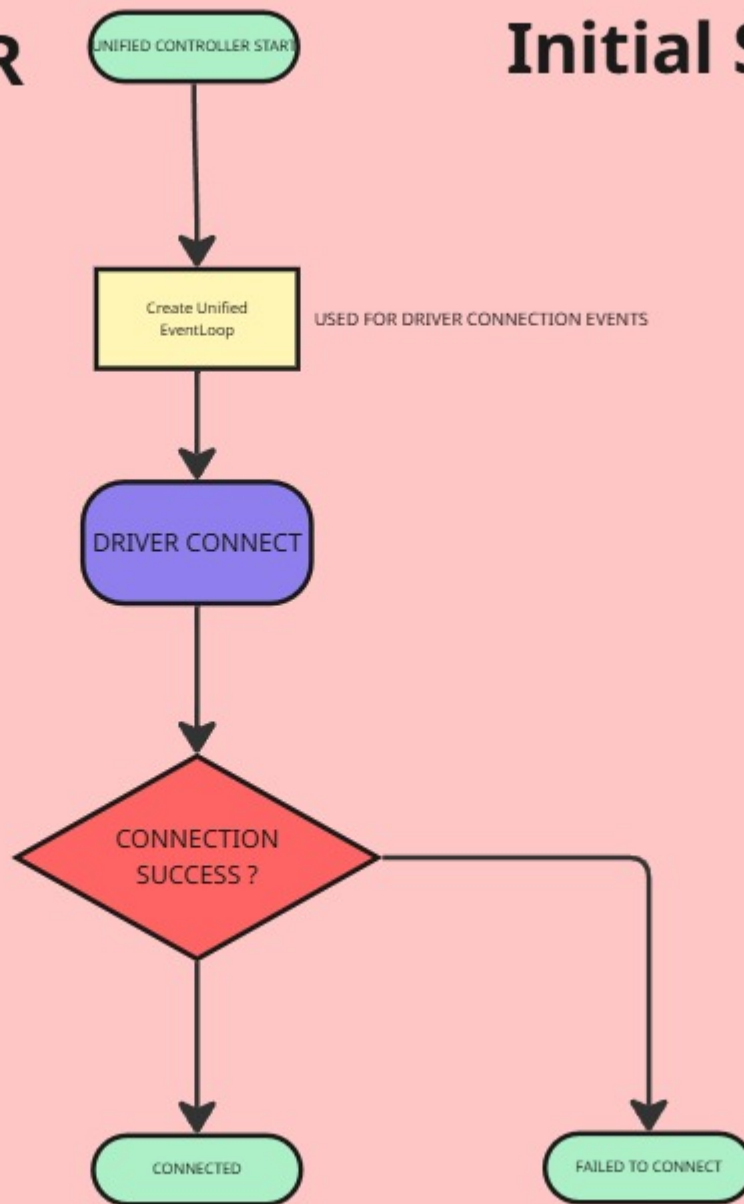
## BSP(Board Support)

# DRIVER INTERFACE INHERITANCE LAYOUT



# UNIFIED-CONTROLLER

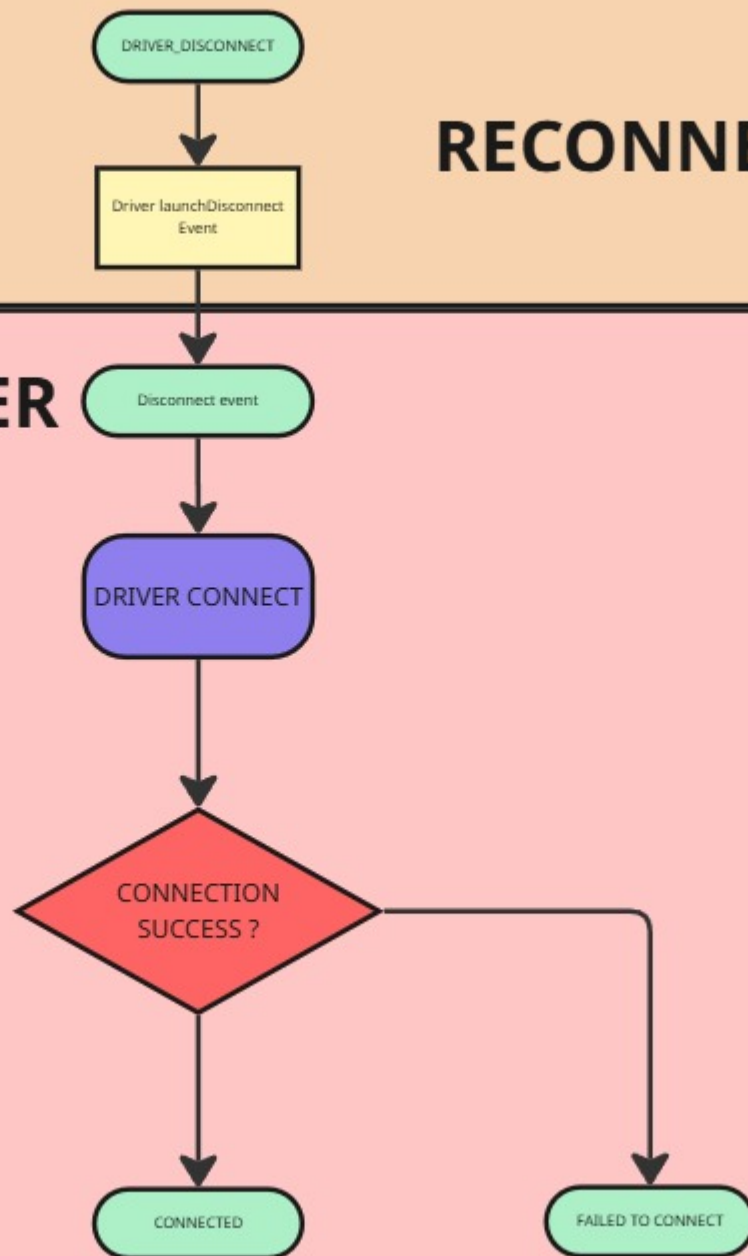
## Initial Startup



# DRIVER

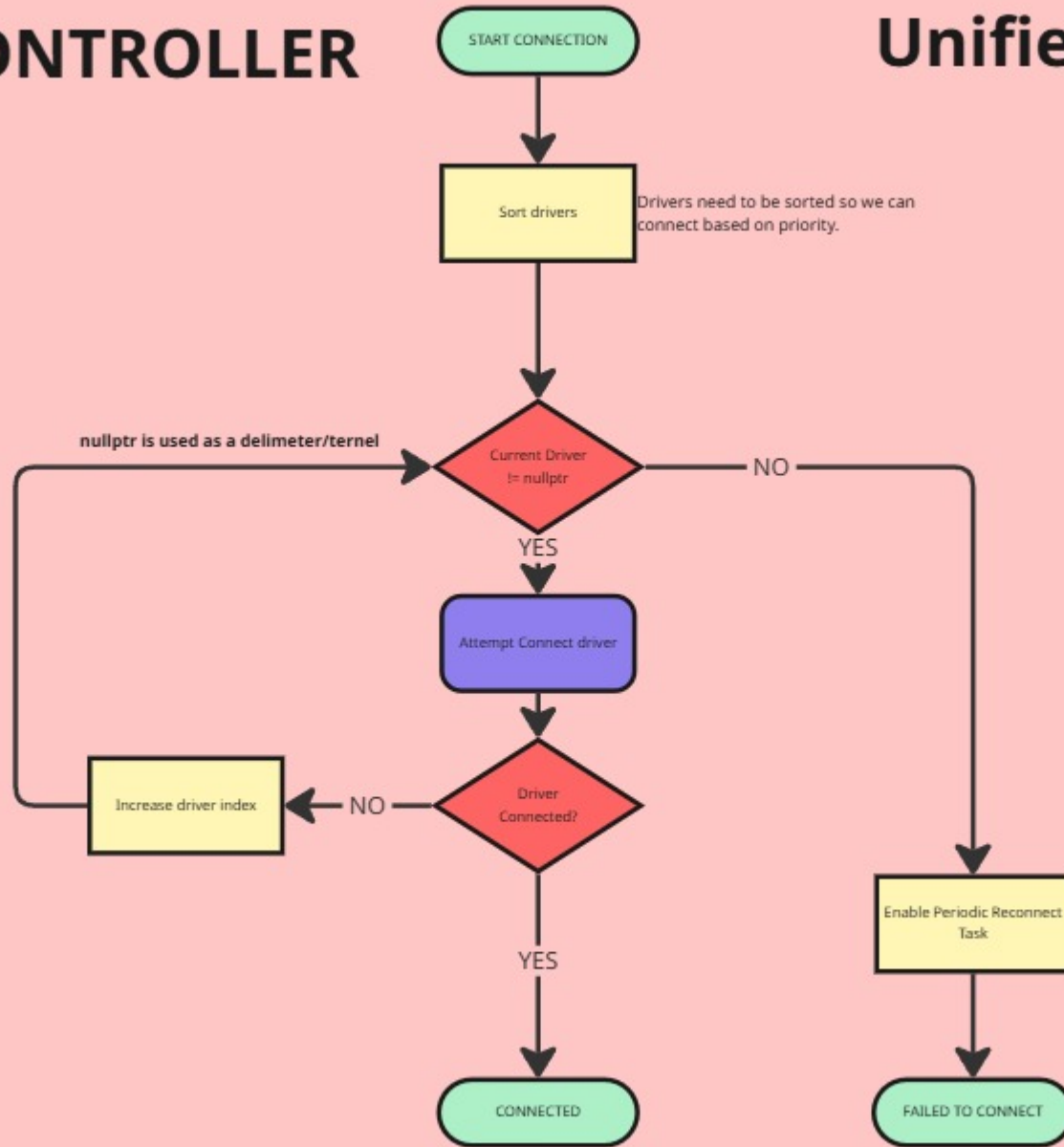
# RECONNECTION CYCLE

## UNIFIED-CONTROLLER



# UNIFIED-CONTROLLER

# Unified Connect



# DRIVER

## Driver Connect

