**Suggested Block Diagram**

Battery

T

**MCU**

BMS

T

T

LCD

RTC3

ESP32

Driver

T

2

C&V 8

MCU

MCU

C7

ESC2

C7

ESC1

1

1

1

1

Switches panel

Water pump

6

1

3

4

5

T

* **Notes:**

1. Thermistor for turning power off in case of temperature exceeds the acceptable level(undefined).
2. NTC for giving temperature for the MCU and taking action.
3. RTC (Real Time Clock).
4. We will use ESP32 for connectivity because it has WIFI (for future mapping feature) and BLE (for direct connection).
5. We prefer to use one ESC rather than two, the max current for each one 300A and two motor will not exceed 150A and all that lying under practical test.
6. We will use external MCU for now and when we can count all input/outputs we will shift for ESP32 or LCD’s MCU.
7. Current sensing before ESC.
8. Current and voltage sensing before BMS.