SUB HUB CIRCUIT DIAGRAM

Arduino Mega

RTC

A4 A5 Vin

A2 D2
A3 D3
D9 D5
D4 D6

11
10

3.3V output RX TX 13 12

D Type

1	9
2	10
3	11
4	12
5	13
6	14
7	15
8	

Logic level Shifter

1 2

1 2

Node MCU ESP8266

3.3V Input TX RX

12 Bit ADC

10 11
13
12 15
14 1 (CH0)
2 (CH1)
16

Battery Back and Regulation

13-32V Input

12V Regulator

5V

8-12V Battery

D TYPE CONNECTIONS TO ARDUINO BOARD

	Wire Bundle 1		Wire Bundle 2		Wire Bundle 3		Wire Bundle 4	
Black	GND,	1	GND,	1	GND,	1	GND,	1
Red	3.3 V ,	2	3.3 V ,	2	3.3 V,	2	3.3 V,	2
White	12 BIT ADC CH0,	3	A4 (I2C),	7	D5 (PWM),	11	D9 (PWM),	13
Yellow	12 BIT ADC CH1,	4	A5 (I2C),	8	D6 (PWM),	12	D4,	14
Green	A2,	5	D2,	9				
Blue	A3,	6	D3 (PWM),	10				

Table content in form of "Pin Name, D-Type Pin"