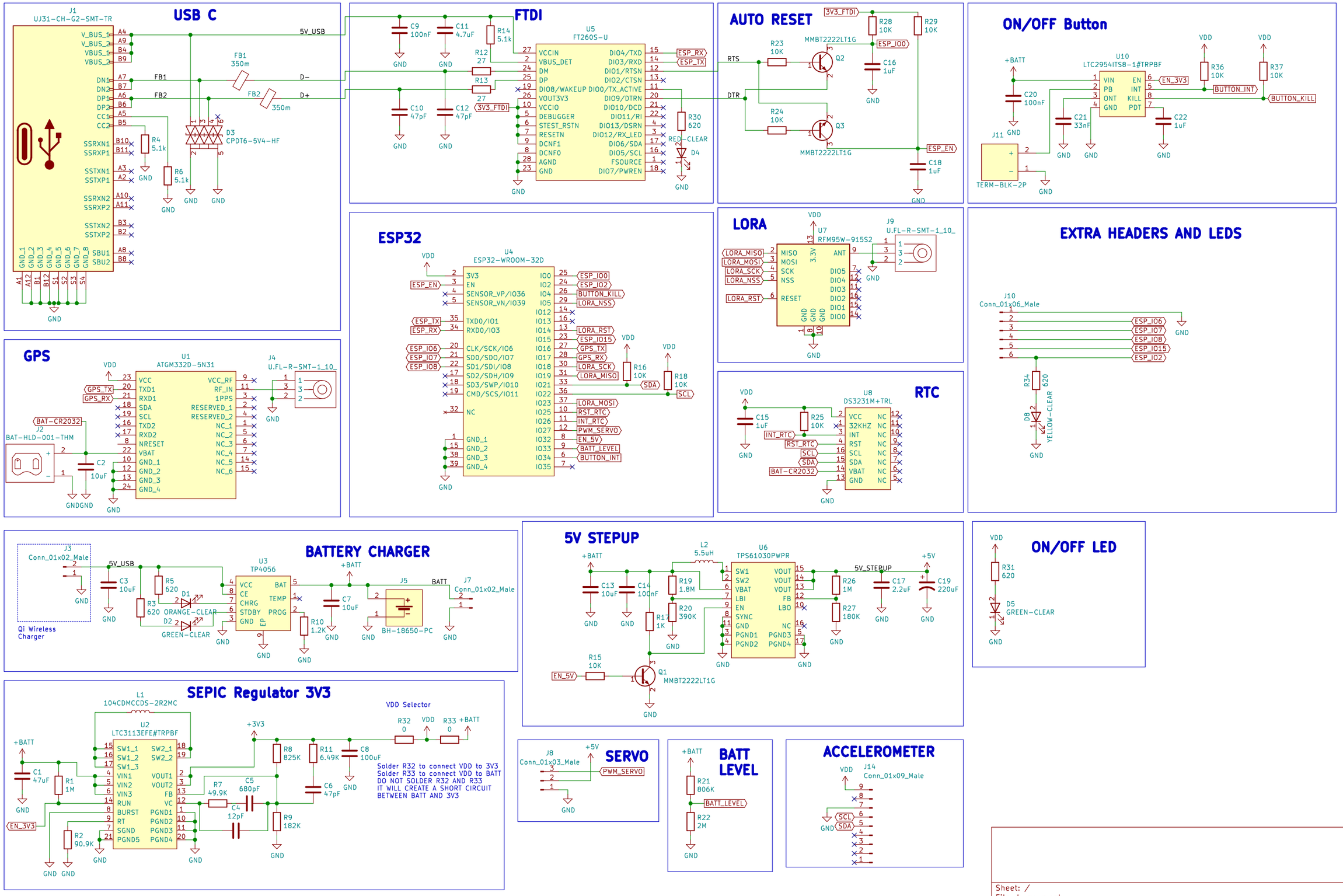
USB C
J1
UJ31-CH-G2-SMT-TR
5V_USB
FB1
FB2
FB1 350m
FB2 350m
D-
D+
D3
CPDT6-5V4-HF
R4 5.1k
R6 5.1k
FTDI
U5
FT260S-U
C9 100nF
C11 4.7uF
R14 5.1k
R12 27
R13 27
C10 47pF
C12 47pF
3V3_FTDI
ESP_RX
ESP_TX
R30 620
RED-CLEAR
D4
AUTO RESET
3V3_FTDI
R28 10K
R29 10K
ESP_IO0
C16 1uF
RTS
DTR
R23 10K
R24 10K
MMBT2222LT1G
Q2
Q3
ESP_EN
C18 1uF
ON/OFF Button
U10
LTC2954ITS8-1#TRPBF
+BATT
C20 100nF
C21 33nF
C22 1uF
EN_3V3
R36 10K
R37 10K
BUTTON_INT
BUTTON_KILL
J11
TERM-BLK-2P
GPS
U1
ATGM332D-5N31
J4
U.FL-R-SMT-1_10_
GPS_TX
GPS_RX
BAT-CR2032
J2
BAT-HLD-001-THM
C2 10uF
ESP32
U4
ESP32-WROOM-32D
ESP_EN
ESP_IO0
ESP_IO2
BUTTON_KILL
LORA_NSS
ESP_IO6
ESP_IO7
ESP_IO8
ESP_IO15
LORA_RST
GPS_TX
GPS_RX
LORA_SCK
LORA_MISO
LORA_MOSI
RST_RTC
INT_RTC
PWM_SERVO
EN_5V
BATT_LEVEL
BUTTON_INT
R16 10K
R18 10K
SDA
SCL
LORA
U7
RFM95W-915S2
J9
U.FL-R-SMT-1_10_
LORA_MISO
LORA_MOSI
LORA_SCK
LORA_NSS
LORA_RST
RTC
U8
DS3231M+TRL
C15 1uF
R25 10K
INT_RTC
RST_RTC
SCL
SDA
BAT-CR2032
EXTRA HEADERS AND LEDS
J10
Conn_01x06_Male
ESP_IO6
ESP_IO7
ESP_IO8
ESP_IO15
ESP_IO2
R34 620
D8
YELLOW-CLEAR
BATTERY CHARGER
J3
Conn_01x02_Male
Qi Wireless Charger
5V_USB
C3 10uF
R5 620
R3 620
D1
ORANGE-CLEAR
D2
GREEN-CLEAR
U3
TP4056
VCC
CE
CHRG
STDBY
GND
BAT
TEMP
PROG
EP
+BATT
C7 10uF
R10 1.2K
J5
BH-18650-PC
BATT
J7
Conn_01x02_Male
5V STEPUP
U6
TPS61030PWPR
L2 5.5uH
C13 10uF
C14 100nF
R19 1.8M
R20 390K
R17 1K
R15 10K
EN_5V
Q1
MMBT2222LT1G
R26 1M
R27 180K
5V_STEPUP
C17 2.2uF
C19 220uF
+5V
ON/OFF LED
R31 620
D5
GREEN-CLEAR
SEPIC Regulator 3V3
L1
104CDMCCDS-2R2MC
U2
LTC3113EFE#TRPBF
C1 47uF
R1 1M
R2 90.9K
EN_3V3
+3V3
R8 825K
R9 182K
R11 6.49K
C6 47pF
C8 100uF
R7 49.9K
C5 680pF
C4 12pF
VDD Selector
R32 0
R33 0
Solder R32 to connect VDD to 3V3
Solder R33 to connect VDD to BATT
DO NOT SOLDER R32 AND R33
IT WILL CREATE A SHORT CIRCUIT
BETWEEN BATT AND 3V3
SERVO
J8
Conn_01x03_Male
PWM_SERVO
BATT LEVEL
R21 806K
R22 2M
BATT_LEVEL
ACCELEROMETER
J14
Conn_01x09_Male
SCL
SDA
Sheet: /
File: buoy-c.sch
Title: Buoy C – Leonardo Ward
Size: A3
Date: 2021-09-02
Rev: 1.0
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Id: 1/1