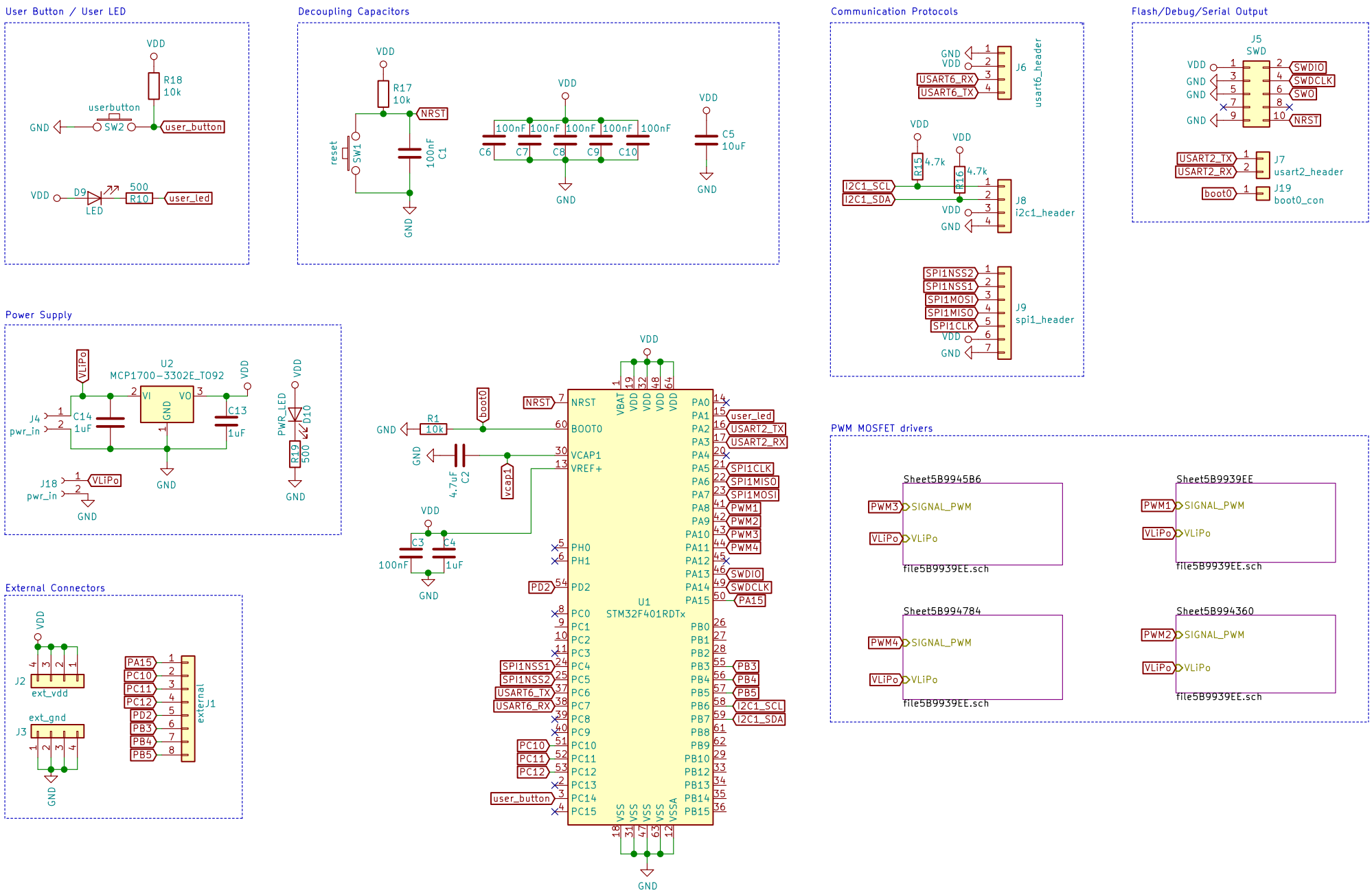
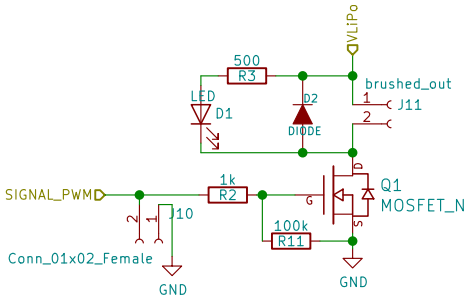
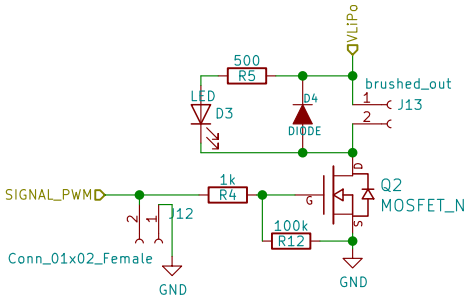
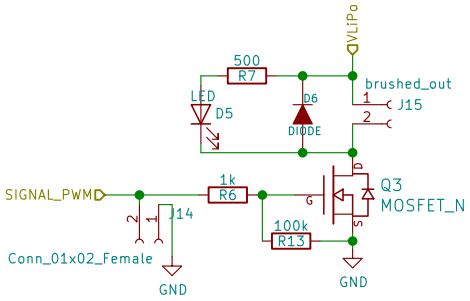
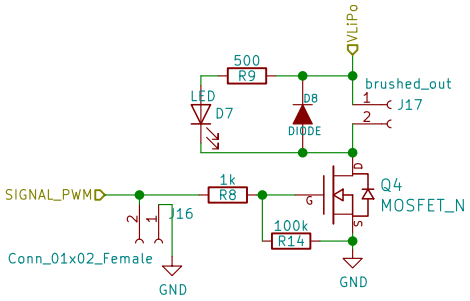

User Button / User LED
VDD
R18
10k
userbutton
GND
SW2
user_button
VDD
D9
LED
500
R10
user_led
Decoupling Capacitors
VDD
R17
10k
NRST
reset
SW1
100nF
C1
GND
VDD
100nF
100nF
100nF
100nF
100nF
C6
C7
C8
C9
C10
GND
VDD
C5
10uF
GND
Communication Protocols
GND
VDD
USART6_RX
USART6_TX
J6
usart6_header
VDD
VDD
R15
4.7k
R16
4.7k
I2C1_SCL
I2C1_SDA
J8
i2c1_header
VDD
GND
SPI1NSS2
SPI1NSS1
SPI1MOSI
SPI1MISO
SPI1CLK
VDD
GND
J9
spi1_header
Flash/Debug/Serial Output
J5
SWD
VDD
GND
GND
GND
SWDIO
SWDCLK
SWO
NRST
USART2_TX
USART2_RX
J7
usart2_header
boot0
J19
boot0_con
Power Supply
VLiPo
U2
MCP1700-3302E_TO92
VDD
J4
pwr_in
C14
1uF
VI
VO
GND
C13
1uF
GND
J18
pwr_in
VLiPo
GND
PWR_LED
VDD
R19
500
D10
GND
VDD
R1
10k
boot0
GND
4.7uF
C2
vcap1
VDD
C3
100nF
C4
1uF
GND
NRST
BOOT0
VCAP1
VREF+
PH0
PH1
PD2
PC0
PC1
PC2
PC3
PC4
PC5
PC6
PC7
PC8
PC9
PC10
PC11
PC12
PC13
PC14
PC15
VBAT
VDD
VDD
VDD
VDD
VSS
VSS
VSS
VSS
VSSA
U1
STM32F401RDTx
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13
PA14
PA15
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PB8
PB9
PB10
PB12
PB13
PB14
PB15
user_led
USART2_TX
USART2_RX
SPI1CLK
SPI1MISO
SPI1MOSI
PWM1
PWM2
PWM3
PWM4
SWDIO
SWDCLK
PA15
PB3
PB4
PB5
I2C1_SCL
I2C1_SDA
SPI1NSS1
SPI1NSS2
USART6_TX
USART6_RX
PC10
PC11
PC12
user_button
GND
External Connectors
VDD
J2
ext_vdd
ext_gnd
J3
GND
PA15
PC10
PC11
PC12
PD2
PB3
PB4
PB5
J1
external
PWM MOSFET drivers
Sheet5B9945B6
PWM3
SIGNAL_PWM
VLiPo
VLiPo
file5B9939EE.sch
Sheet5B9939EE
PWM1
SIGNAL_PWM
VLiPo
VLiPo
file5B9939EE.sch
Sheet5B994784
PWM4
SIGNAL_PWM
VLiPo
VLiPo
file5B9939EE.sch
Sheet5B994360
PWM2
SIGNAL_PWM
VLiPo
VLiPo
file5B9939EE.sch


VLiPo
500
R3
LED
D1
D2
DIODE
brushed_out
1
J11
2
SIGNAL_PWM
1k
R2
J10
2
1
Conn_01x02_Female
GND
100k
R11
GND
D
G
S
Q1
MOSFET_N


VLiPo
500
R5
LED
D3
D4
DIODE
brushed_out
1
J13
2
SIGNAL_PWM
1k
R4
J12
2
1
Conn_01x02_Female
GND
100k
R12
GND
D
G
S
Q2
MOSFET_N


VLiPo
500
R7
LED
D5
D6
DIODE
brushed_out
1
J15
2
1k
R6
SIGNAL_PWM
J14
2
1
Conn_01x02_Female
GND
100k
R13
GND
D
G
S
Q3
MOSFET_N


VLiPo
500
R9
LED
D7
D8
DIODE
brushed_out
1
J17
2
1k
R8
SIGNAL_PWM
2
1
J16
Conn_01x02_Female
GND
100k
R14
GND
D
G
S
Q4
MOSFET_N