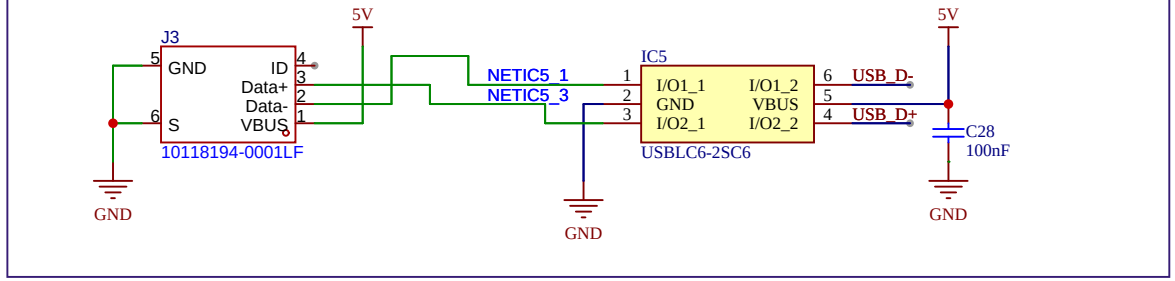
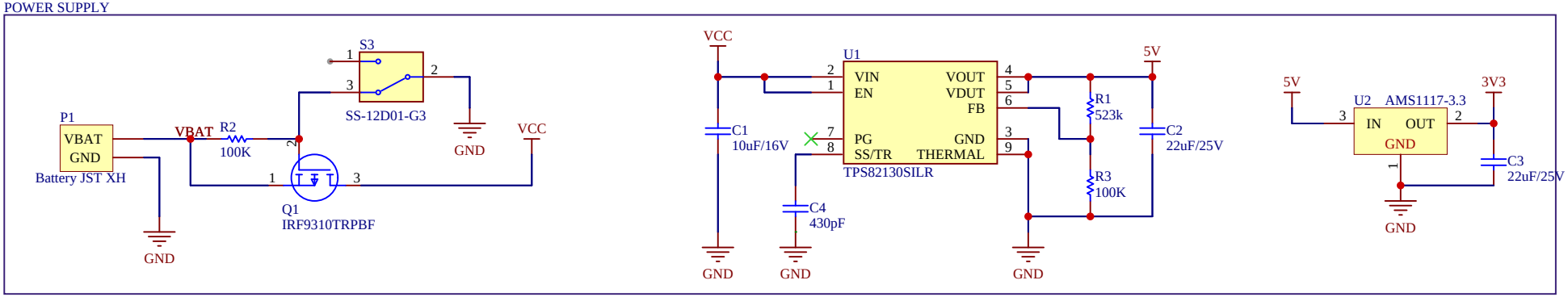
Body

USB

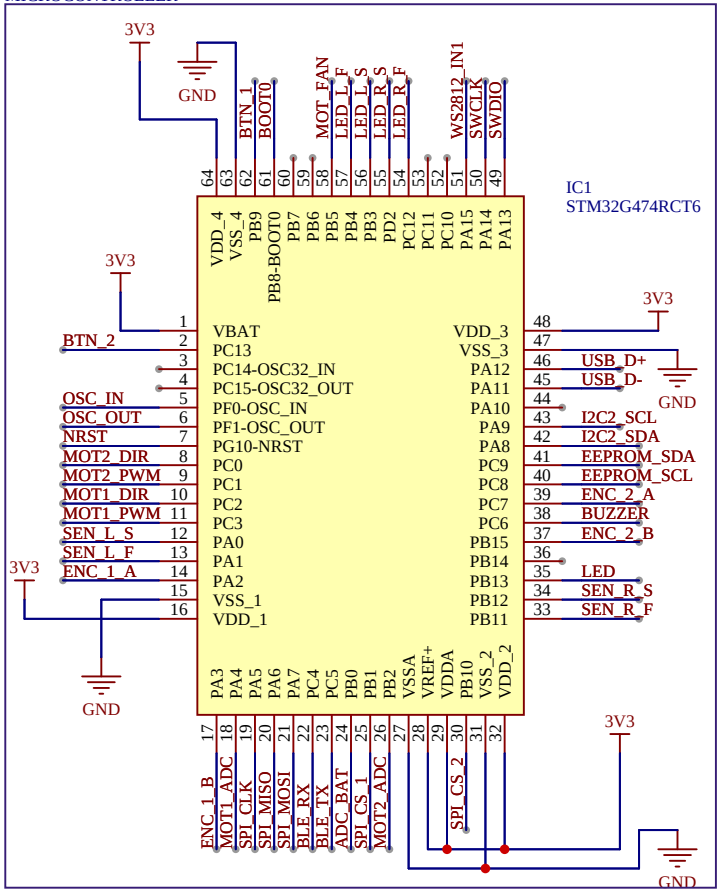


Title		
Size A4	Number	Revision
Date:		Sheet Of
File:		Drawn By:

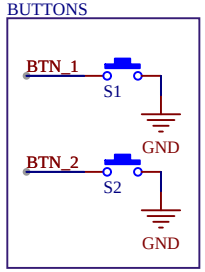
POWER SUPPLY



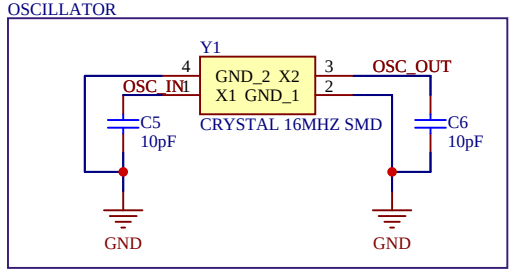
MICROCONTROLLER



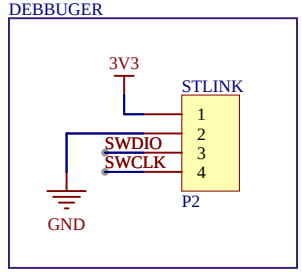
BUTTONS



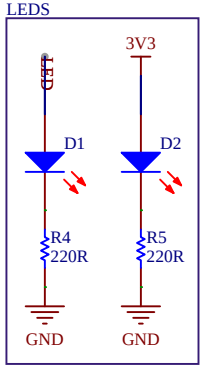
OSCILLATOR



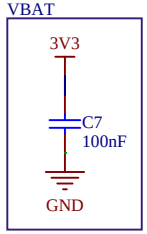
DEBBUGER



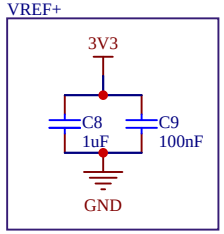
LEDS



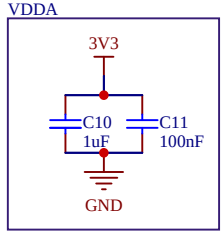
VBAT



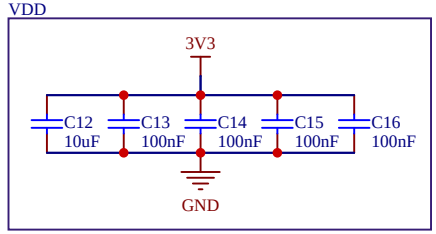
VREF+



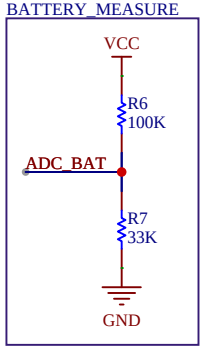
VDDA



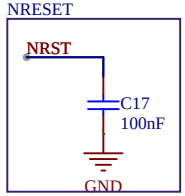
VDD



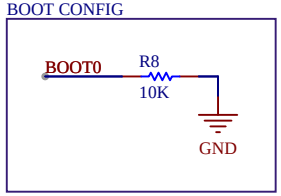
BATTERY_MEASURE



NRESET



BOOT CONFIG



Title		
Size A4	Number	Revision
Date:	Sheet Of	
File:	Drawn By:	

I_trip = Max Driver Current

I_trip = Vref / (R_irop * 0.000455)

Using R = 2K and VREF = 3.3
I_trip = 3.626A

MOT1_ADC cannot be larger than adc max value.

So:

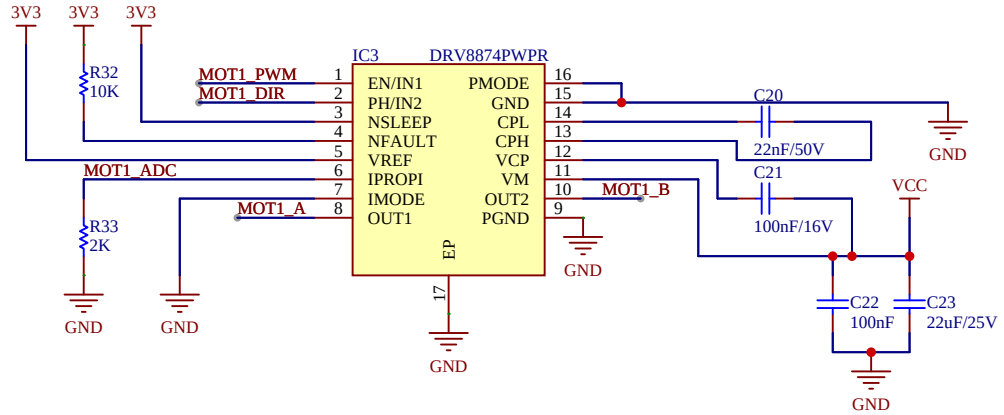
V = R*I = R * Aipropi * i =>

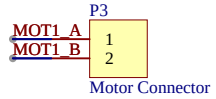
V = 2000 * 0.000455 * i

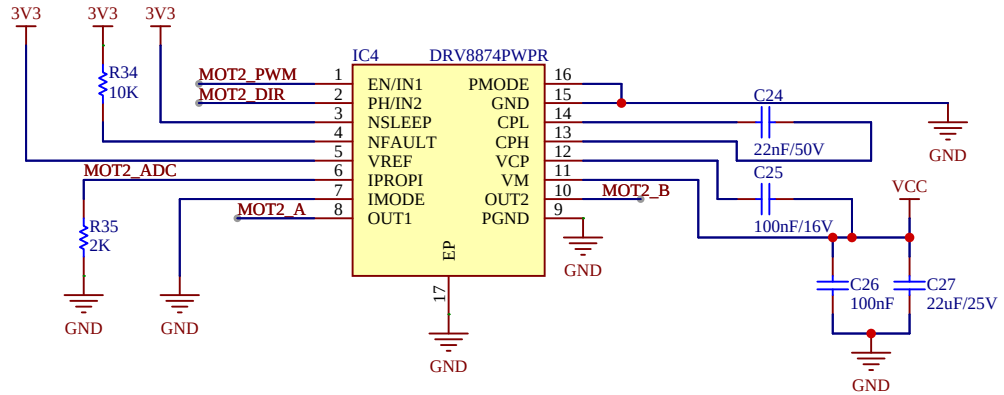
Para V = 3.3, I = 3.62

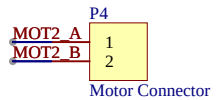
Precisão do ADC:
3.3/4096 -> 0.000805664mV

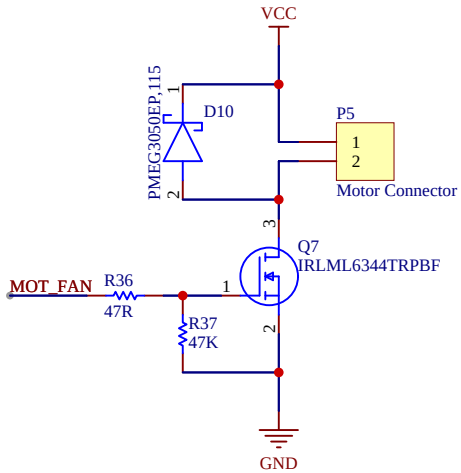
Precisão da corrente:
V = R*I = R * Aipropi * i
i = 0.000805664 / (2000 * 0.000455) = 0.88mA

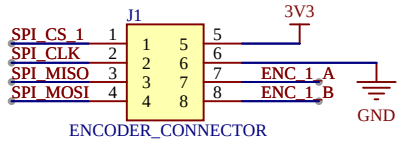


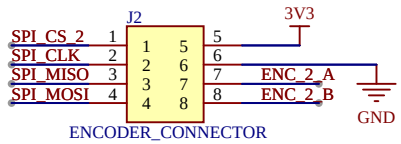




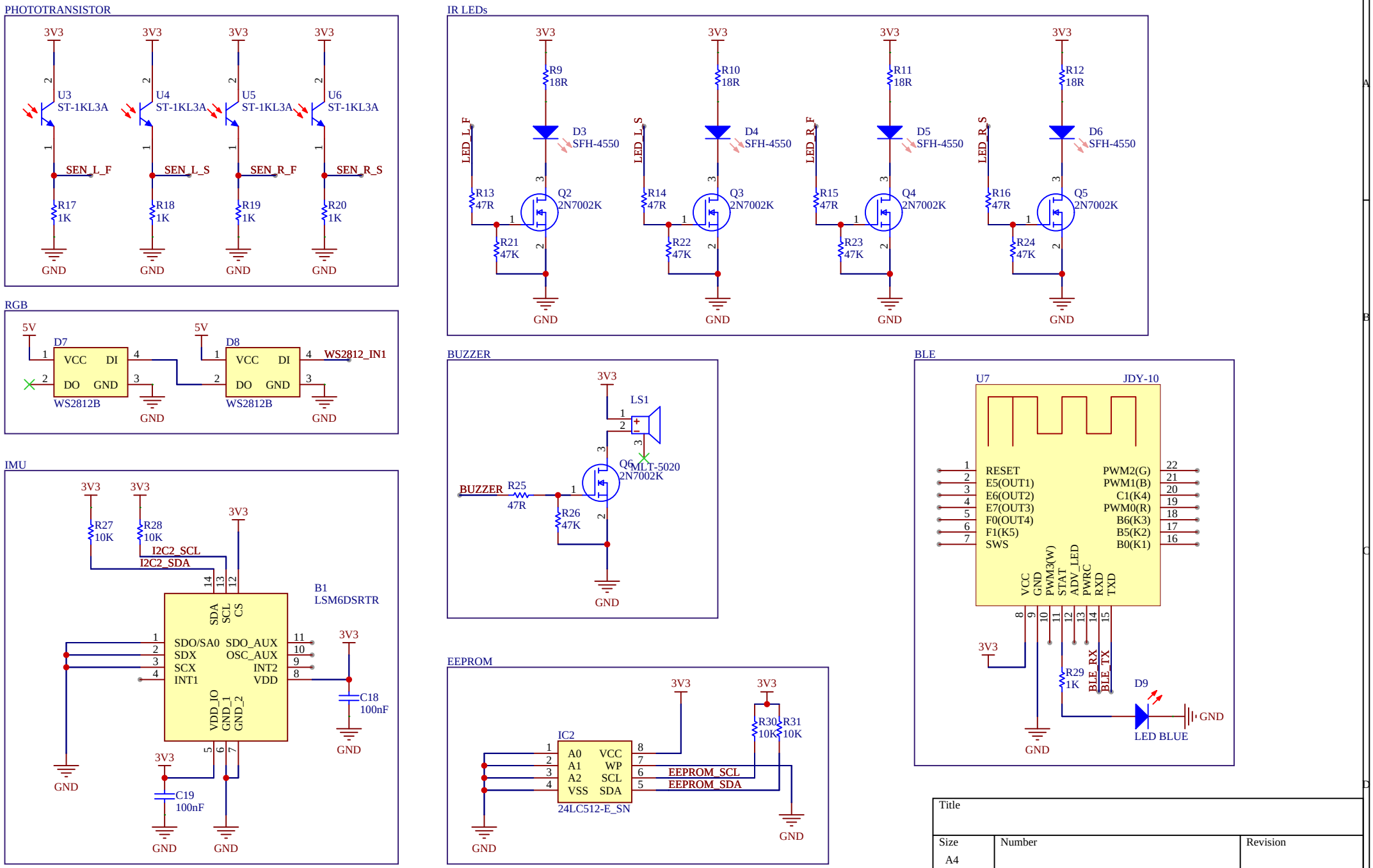








Title		
Size A4	Number	Revision
Date:	Sheet Of	
File:	Drawn By:	


PHOTOTRANSISTOR
3V3
U3
ST-1KL3A
U4
ST-1KL3A
U5
ST-1KL3A
U6
ST-1KL3A
SEN_L_F
SEN_L_S
SEN_R_F
SEN_R_S
R17
1K
R18
1K
R19
1K
R20
1K
GND
IR LEDs
R9
18R
R10
18R
R11
18R
R12
18R
D3
SFH-4550
D4
SFH-4550
D5
SFH-4550
D6
SFH-4550
LED_L_F
LED_L_S
LED_R_F
LED_R_S
R13
47R
R14
47R
R15
47R
R16
47R
Q2
2N7002K
Q3
2N7002K
Q4
2N7002K
Q5
2N7002K
R21
47K
R22
47K
R23
47K
R24
47K
RGB
5V
D7
D8
VCC
DI
DO
GND
WS2812B
WS2812_IN1
BUZZER
LS1
MLT-5020
Q6
2N7002K
R25
47R
R26
47K
BLE
U7
JDY-10
RESET
E5(OUT1)
E6(OUT2)
E7(OUT3)
F0(OUT4)
F1(K5)
SWS
PWM2(G)
PWM1(B)
C1(K4)
PWM0(R)
B6(K3)
B5(K2)
B0(K1)
VCC
GND
PWM3(W)
STAT
ADV_LED
PWRC
RXD
TXD
R29
1K
BLE_RX
BLE_TX
D9
LED BLUE
IMU
R27
10K
R28
10K
I2C2_SCL
I2C2_SDA
B1
LSM6DSRTR
SDA
SCL
CS
SDO/SA0
SDO_AUX
SDX
OSC_AUX
SCX
INT2
INT1
VDD
VDD_IO
GND_1
GND_2
C18
100nF
C19
100nF
EEPROM
IC2
A0
A1
A2
VSS
VCC
WP
SCL
SDA
24LC512-E_SN
R30
10K
R31
10K
EEPROM_SCL
EEPROM_SDA
Title
Size
A4
Number
Revision
Date:
File:
Sheet Of
Drawn By: