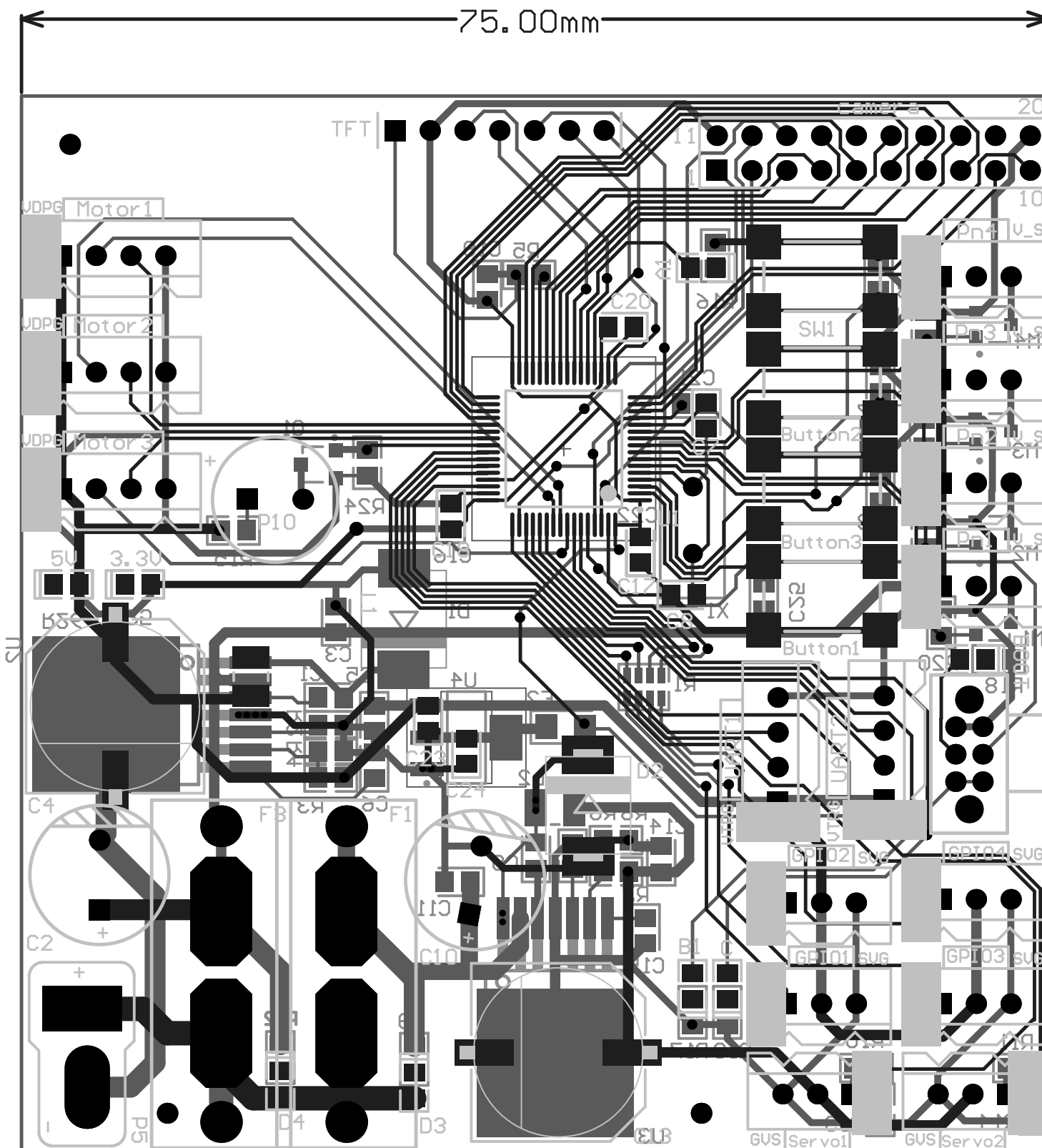


Title <b>Internal 2017-2018 Mainboard</b>		
Size C	Number	Revision
Date: File:	10/10/2017 C:\Users\Internal 2017-2018 SchDoc	Sheet of Drawn By:



Comment	Description	Designator	Footprint	LibRef	Quantity
3.3V	Typical RED GaAs LED	1	D0805	LED	1
5V	Typical RED GaAs LED	2	D0805	LED	1
A	Typical RED GaAs LED	A1, B1	D0805	LED	2
BOOT	Typical RED GaAs LED	BOOT1	D0805	LED	1
B2	Single-Pole, Single-Throw Switch	Button1, Button2	PUSH SWITCH	SW-SPST	2
B1	Single-Pole, Single-Throw Switch	Button3	PUSH SWITCH	SW-SPST	1
B	Typical RED GaAs LED	C	D0805	LED	1
10nF	Capacitor (Semiconductor SIM Model)	C1, C9	CC2012-0805	Cap Semi	2
470uF	Polarized Capacitor (Radial)	C2, C10	CAP10x12	Cap Pol DIP	2
100nF	Capacitor (Semiconductor SIM Model)	C3, C5, C6, C11, C12, C14, C15, C17, C18, C19, C20, C21, C22, C25, C27, C28	CC2012-0805	Cap Semi	16
2200uF	Polarized Capacitor (Axial)	C4, C13	SV-H	Cap Pol SMD	2
20pF	Capacitor (Semiconductor SIM Model)	C7, C8	CC2012-0805	Cap Semi	2
2.2uF	Capacitor (Semiconductor SIM Model)	C16	CC2012-0805	Cap Semi	1
10uF	Capacitor (Semiconductor SIM Model)	C23, C24	CC2012-0805	Cap Semi	2
D Schottky 5S84	Schottky Diode	D1, D2	SMC	D Schottky	2
FUSE	Typical RED GaAs LED	D3, D4	D0805	LED	2
10A Fuse	Fuse	F1	FUSE SOCKET	Fuse	1
0.2A Fuse	Fuse	F2	CF3216-1206	Fuse	1
3A Fuse	Fuse	F3	FUSE SOCKET	Fuse	1
GPIO1	Header, 3-Pin	JP1	LOCKEDHDR-3	Header 3	1
GPIO2	Header, 3-Pin	JP2	LOCKEDHDR-3	Header 3	1
GPIO3	Header, 3-Pin	JP3	LOCKEDHDR-3	Header 3	1
GPIO4	Header, 3-Pin	JP4	LOCKEDHDR-3	Header 3	1
Motor1	Header, 4-Pin	JP5	LOCKEDHDR-4	Header 4	1
Motor2	Header, 4-Pin	JP6	LOCKEDHDR-4	Header 4	1
Motor3	Header, 4-Pin	JP7	LOCKEDHDR-4	Header 4	1
UART1	Header, 4-Pin	JP8	LOCKEDHDR-4	Header 4	1
UART2	Header, 4-Pin	JP9	LOCKEDHDR-4	Header 4	1
22uH	Inductor	L1, L2	CL3225-1210	Inductor	2
AO3400	N-Channel MOSFET	M1, M2, M3, M4	SOT-23	AO3400	4
TFT	Header, 6-Pin	P2	HDR1X7	Header 7	1
Servo1	Header, 3-Pin	P3	LOCKEDHDR-3	Header 3	1
Servo2	Header, 3-Pin	P4	LOCKEDHDR-3	Header 3	1
POWER	Header, 2-Pin	P5	T-CONNECTOR(M)	Header 2	1
Pn1	Header, 3-Pin	P6	LOCKEDHDR-3	Header 3	1
Pn2	Header, 3-Pin	P7	LOCKEDHDR-3	Header 3	1
Pn3	Header, 3-Pin	P8	LOCKEDHDR-3	Header 3	1
Pn4	Header, 3-Pin	P9	LOCKEDHDR-3	Header 3	1
Buzzer		P10	BUZ-9.0	Buzzer	1
CAMERA	Header, 10-Pin, Dual row	P7	HDR2X10_CEN	Header 10X2A	1
AO3400	N-Channel MOSFET	Q1	SO-G3/Z3.3	AO3400	1
56R	4x Resistor Array	R1	ARC241-0603x4	Res Array	1
6k2	Semiconductor Resistor	R2, R6	CR2012-0805	Res Semi	2
4k7	Semiconductor Resistor	R3, R7	CR2012-0805	Res Semi	2
1k5	Semiconductor Resistor	R4, R8	CR2012-0805	Res Semi	2
162k	Semiconductor Resistor	R5	CR2012-0805	Res Semi	1
4.7k	Semiconductor Resistor	R9, R12	CR2012-0805	Res Semi	2
56R	Semiconductor Resistor	R10, R11	CR2012-0805	Res Semi	2
10K	Semiconductor Resistor	R13, R14, R24	CR2012-0805	Res Semi	3
33R	Semiconductor Resistor	R15	CR2012-0805	Res Semi	1
330R	Semiconductor Resistor	R16, R17, R18, R19, R25, R26	CR2012-0805	Res Semi	6
100k	Semiconductor Resistor	R20, R21, R22, R23	CR2012-0805	Res Semi	4
RESET	Single-Pole, Single-Throw Switch	SW1	PUSH SWITCH	SW-SPST	1
BOOT	Header, 3-Pin, Dual row	SW2	POWER SWITCH	Header 3X2	1
STM32F103RBT6	STM32 ARM-based 32-bit MCU with 128 Kbytes Flash, 64-pin LQFP, Industrial Temperature	U1	LQFP64_N	STM32F103RBT6	1
LM2679	5A Step-Down Switching Mode Voltage Regulator	U2, U3	TO-263(7)	LM2679	2
LM1117MP-3.3	800mA Low-Dropout Linear Regulator	U4	MP04A_N	LM1117MP-3.3	1
8.00MHz	Crystal Oscillator	X1	BCY-WZ/E4.7	XTAL	1