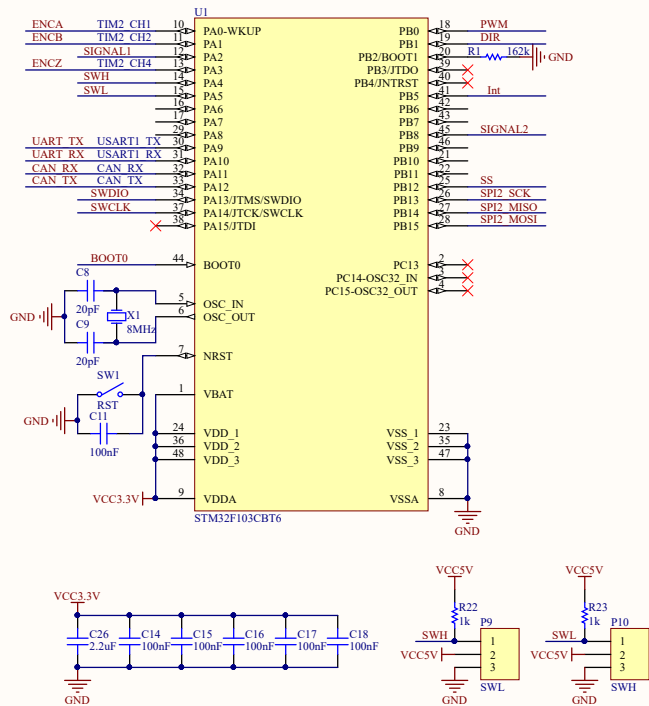
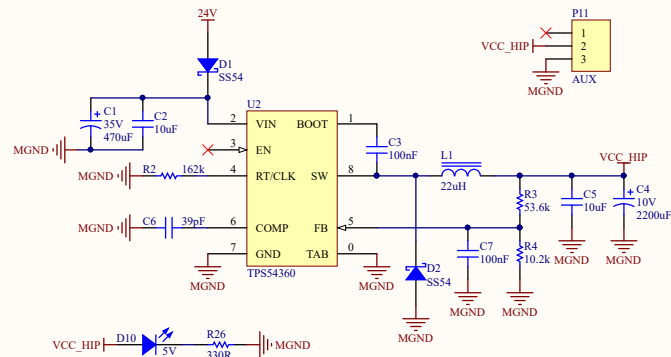


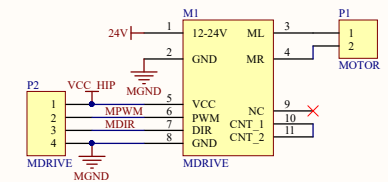
MCU



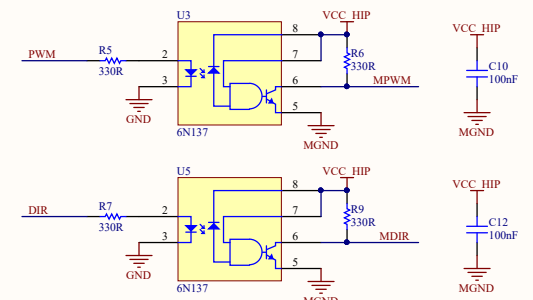
24 to 5V REGULATOR



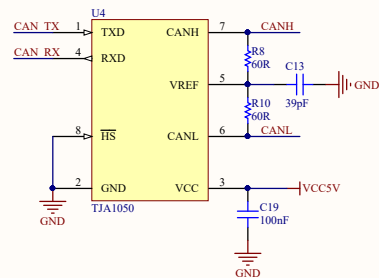
MOTOR DRIVING MODULE



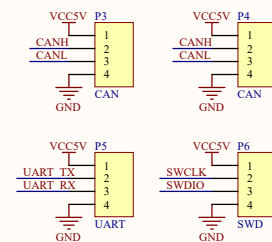
OPTOISOLATOR



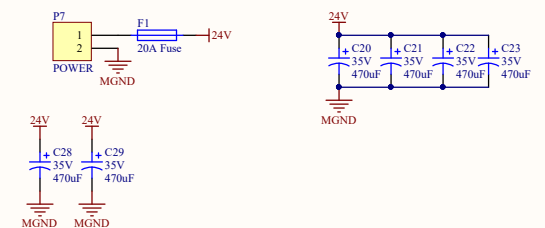
CAN



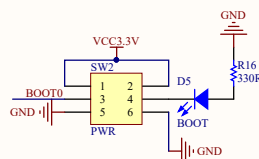
PORTS



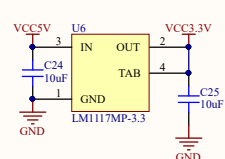
POWER



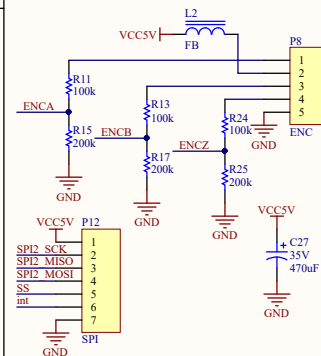
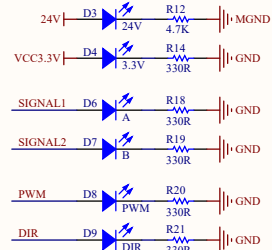
BOOT



REGULATOR



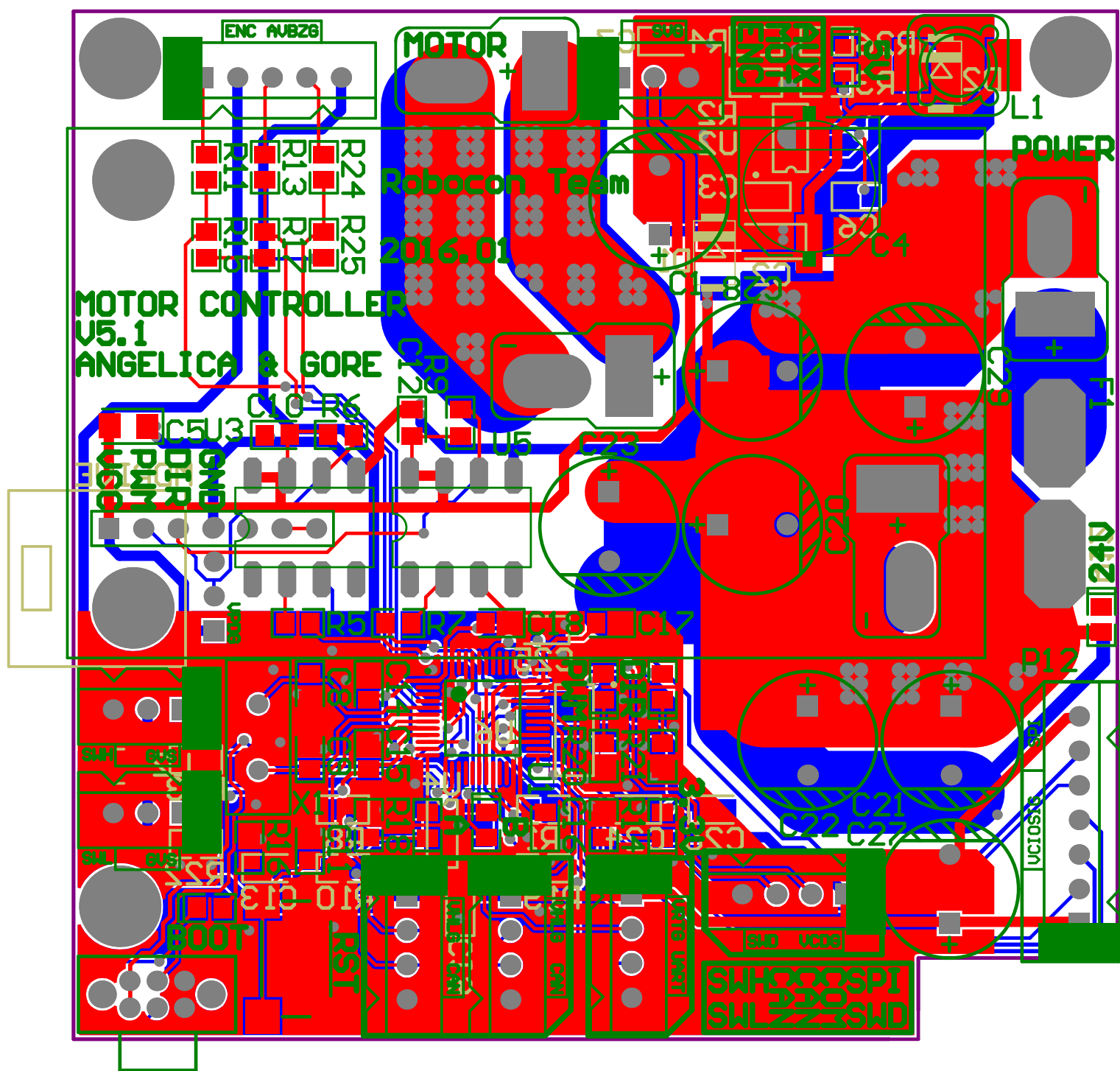
INDICATORS



Title		
Size	Number	Revision
A4		
Date:	20/11/2016	Sheet of
File:	F:\boards\Motor Driver Base Board V5.1	Sheet of

76.835 (mm)

76.2 (mm)



Comment	Description	Designator	Footprint	LibRef	Quantity
470uF	Polarized Capacitor (Radial)	C1, C20, C21, C22, C23, C27, C28, C29	CAP10x12	Cap Pol DIP	8
10uF	Capacitor (Semiconductor SIM Model)	C2, C5	CC3216-1206	Cap Semi	2
100nF	Capacitor (Semiconductor SIM Model)	C3, C7, C10, C11, C12, C14, C15, C16, C17, C18, C19	CC2012-0805	Cap Semi	11
2200uF	Polarized Capacitor (Axial)	C4	SV-G	Cap Pol SMD	1
39pF	Capacitor (Semiconductor SIM Model)	C6, C13	CC2012-0805	Cap Semi	2
20pF	Capacitor (Semiconductor SIM Model)	C8, C9	CC2012-0805	Cap Semi	2
10uF	Capacitor (Semiconductor SIM Model)	C24, C25	CC2012-0805	Cap Semi	2
2.2uF	Capacitor (Semiconductor SIM Model)	C26	CC2012-0805	Cap Semi	1
SS54	Schottky Diode	D1, D2	SMA	D Schottky	2
24V	Typical RED GaAs LED	D3	D0805	LED	1
3.3V	Typical RED GaAs LED	D4	D0805	LED	1
BOOT	Typical RED GaAs LED	D5	D0805	LED	1
A	Typical RED GaAs LED	D6	D0805	LED	1
B	Typical RED GaAs LED	D7	D0805	LED	1
PWM	Typical RED GaAs LED	D8	D0805	LED	1
DIR	Typical RED GaAs LED	D9	D0805	LED	1
5V	Typical RED GaAs LED	D10	D0805	LED	1
20A Fuse	Fuse	F1	FUSE SOCKET	Fuse	1
22uH	Inductor	L1	CDRH74	Inductor	1
FB	Inductor	L2	CL3225-1210	Inductor	1
MDRIVE	HIP4081 Motor Driver Module	M1	HIP4081_Driver	HIP4081 Motor Driver	1
MOTOR	Header, 2-Pin	P1	T-CONNECTOR(F)	Header 2	1
MDRIVE	Header, 4-Pin	P2	LOCKEDHDR-4W	Header 4	1
CAN	Header, 4-Pin	P3, P4	LOCKEDHDR-4	Header 4	2
UART	Header, 4-Pin	P5	LOCKEDHDR-4	Header 4	1
SWD	Header, 4-Pin	P6	LOCKEDHDR-4	Header 4	1
POWER	Header, 2-Pin	P7	T-CONNECTOR(M)	Header 2	1
ENC	Header, 5-Pin	P8	lockedHDR-5	Header 5	1
SWL	Header, 3-Pin	P9	LOCKEDHDR-3	Header 3	1
SWH	Header, 3-Pin	P10	LOCKEDHDR-3	Header 3	1
AUX	Header, 3-Pin	P11	LOCKEDHDR-3	Header 3	1
SPI	Header, 7-Pin	P12	lockedHDR-7	Header 7	1
162k	Semiconductor Resistor	R1, R2	CR2012-0805	Res Semi	2
53.6k	Semiconductor Resistor	R3	CR2012-0805	Res Semi	1
10.2k	Semiconductor Resistor	R4	CR2012-0805	Res Semi	1
330R	Semiconductor Resistor	R5, R6, R7, R9, R14, R16, R18, R19, R20, R21, R26	CR2012-0805	Res Semi	11
60R	Semiconductor Resistor	R8, R10	CR2012-0805	Res Semi	2
100k	Semiconductor Resistor	R11, R13, R24	CR2012-0805	Res Semi	3
4.7K	Semiconductor Resistor	R12	CR2012-0805	Res Semi	1
200k	Semiconductor Resistor	R15, R17, R25	CR2012-0805	Res Semi	3
1k	Semiconductor Resistor	R22, R23	CR2012-0805	Res Semi	2
RST	Single-Pole, Single-Throw Switch	SW1	PUSH SWITCH	SW-SPST	1
PWR	Header, 3-Pin, Dual row	SW2	POWER SWITCH	Header 3X2	1
STM32F103CBT6	STM32 ARM-based 32-bit MCU with 128 Kbytes Flash, 48-pin LQFP, Industrial Temperature	U1	LQFP48_N	STM32F103CBT6	1
TPS54360	60 V, 3.5 A , Step Down DC-DC Converter with Eco-Mode	U2	PDSO-8	TPS54360	1
6N137	Optocoupler	U3, U5	DS1302	6N137	2
TJA1050	5V to 12V Charge Pump	U4	SOP-8	TJA1050	1
LM1117MP-3.3	800mA Low-Dropout Linear Regulator	U6	MP04A_N	LM1117MP-3.3	1
8MHz	Crystal Oscillator	X1	BCY-W2/E4.7	XTAL	1