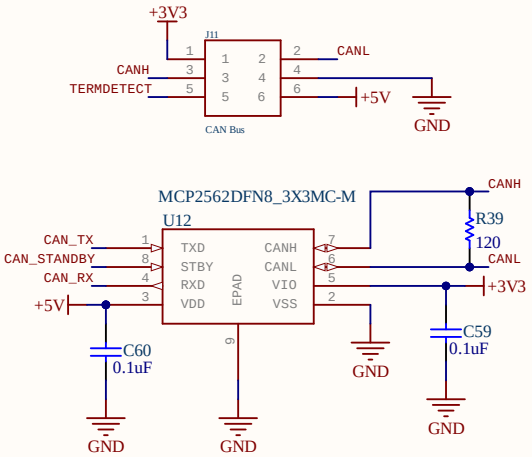
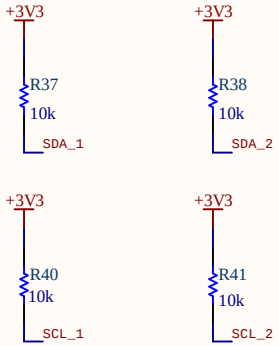
CAN

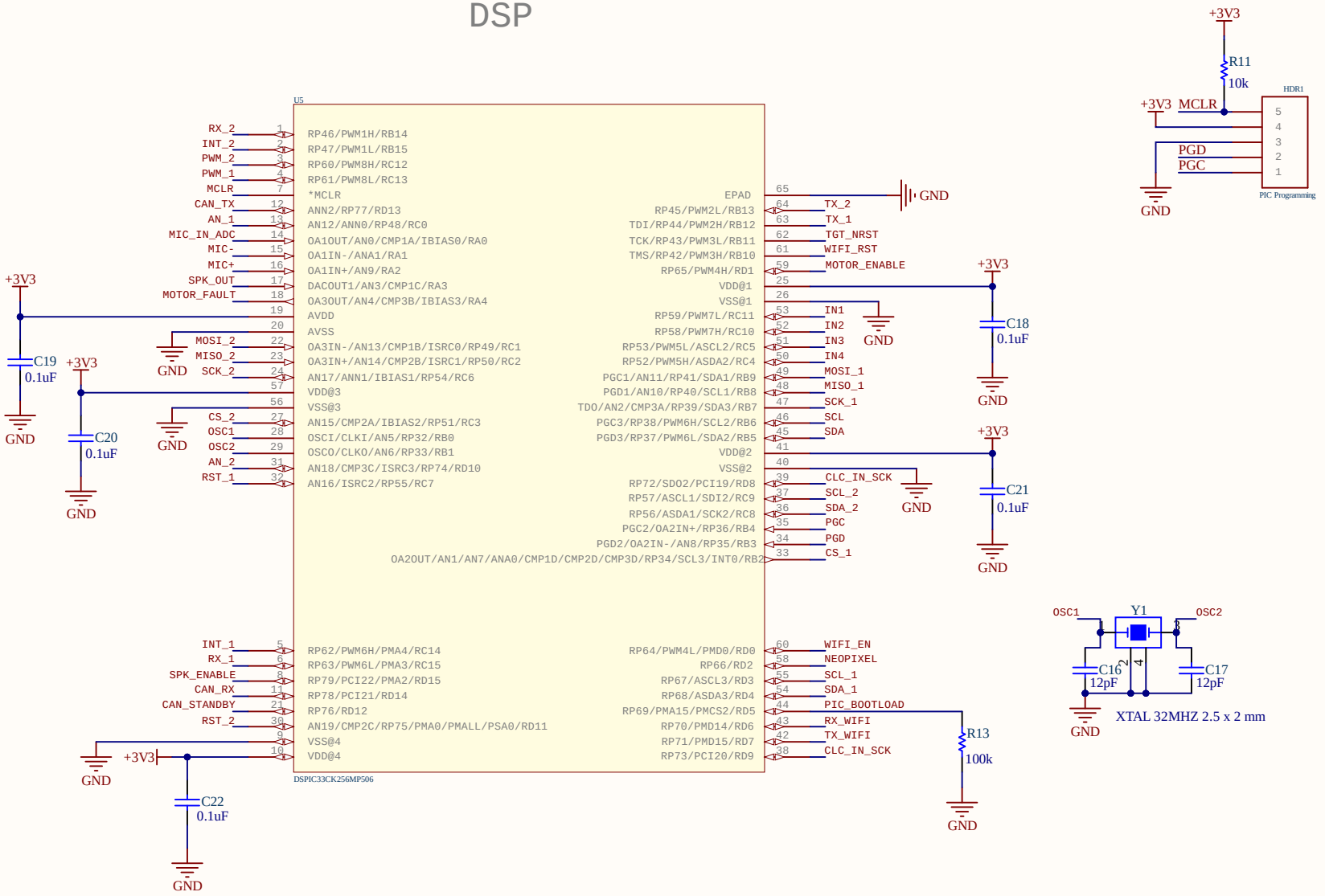


I2C Con



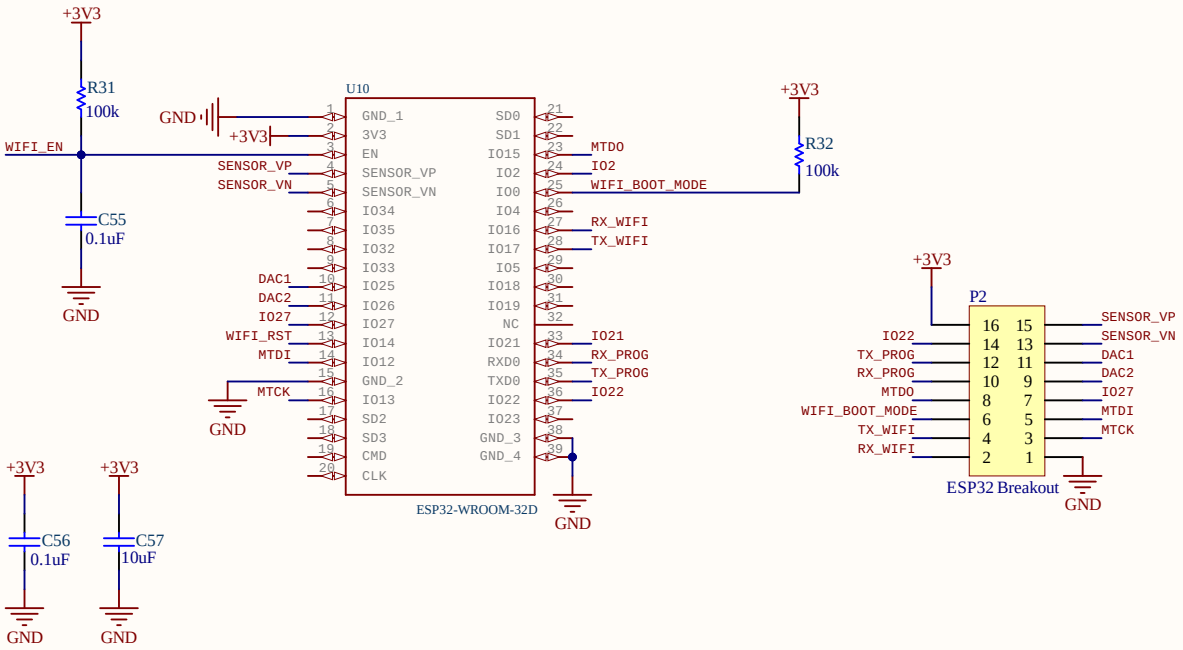
UNB EST.1785	Title: *		
	Electrical and Computer Engineering University of New Brunswick		
Date: 9/29/2020		Rev: 1	Sheet: * of *
Filename: CAN and I2C.SchDoc		Designed by:	

DSP



UNB EST. 1785	Title: *		
	Electrical and Computer Engineering *University of New Brunswick*		
Date: 9/29/2020		Rev: 1	Sheet: * of *
Filename: DSP.SchDoc			Designed by:

ESP32 WiFi



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	Electrical and Computer Engineering *University of New Brunswick*		
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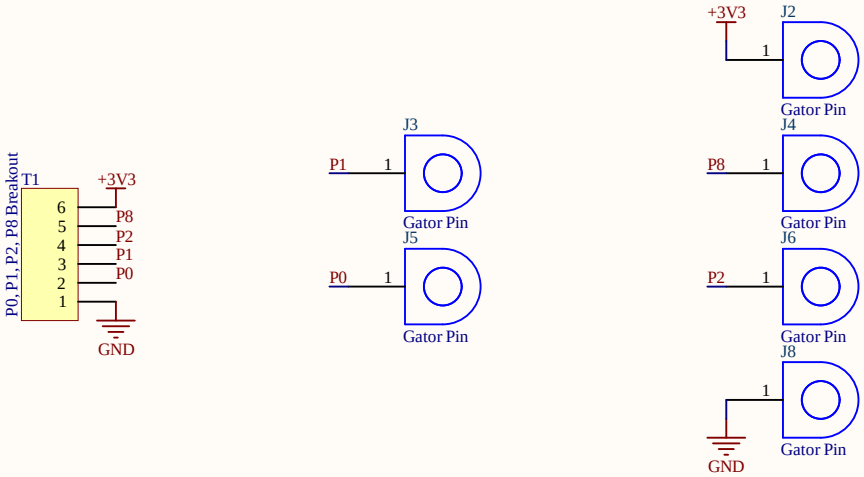
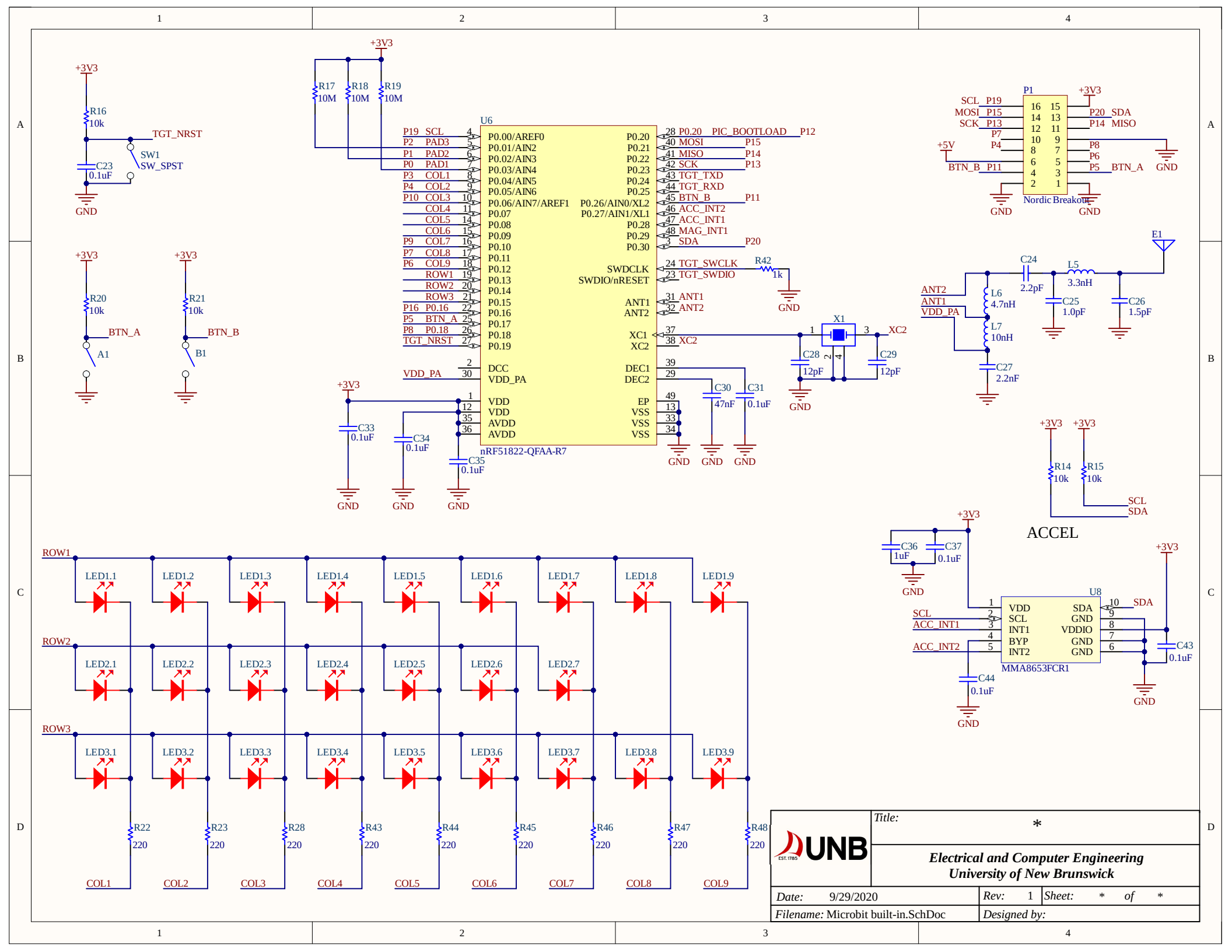
Filename: ESP32 WiFi.SchDoc	*Designed by:*		

Gator Clips



UNB EST. 1785	Title: *		
	Electrical and Computer Engineering ***University of New Brunswick***		
Date: 9/29/2020		*Rev:* 1	*Sheet:* * *of* *
Filename: Gator Clips.SchDoc			*Designed by:*


+3V3
R16
10k
TGT_NRST
SW1
SW_SPST
C23
0.1uF
GND
R17
10M
R18
10M
R19
10M
U6
P19 SCL
P2 PAD3
P1 PAD2
P0 PAD1
P3 COL1
P4 COL2
P10 COL3
COL4
COL5
COL6
P9 COL7
P7 COL8
P6 COL9
ROW1
ROW2
ROW3
P16 P0.16
P5 BTN_A
P8 P0.18
TGT_NRST
VDD_PA
P0.00/AREF0
P0.01/AIN2
P0.02/AIN3
P0.03/AIN4
P0.04/AIN5
P0.05/AIN6
P0.06/AIN7/AREF1
P0.07
P0.08
P0.09
P0.10
P0.11
P0.12
P0.13
P0.14
P0.15
P0.16
P0.17
P0.18
P0.19
DCC
VDD_PA
VDD
VDD
AVDD
AVDD
P0.20
P0.21
P0.22
P0.23
P0.24
P0.25
P0.26/AIN0/XL2
P0.27/AIN1/XL1
P0.28
P0.29
P0.30
SWDCLK
SWDIO/nRESET
ANT1
ANT2
XC1
XC2
DEC1
DEC2
EP
VSS
VSS
VSS
nRF51822-QFAA-R7
P0.20 PIC_BOOTLOAD P12
MOSI P15
MISO P14
SCK P13
TGT_TXD
TGT_RXD
BTN_B P11
ACC_INT2
ACC_INT1
MAG_INT1
SDA P20
TGT_SWCLK
TGT_SWDIO
R42
1k
ANT1
ANT2
X1
XC2
C28
12pF
C29
12pF
C30
47nF
C31
0.1uF
C33
0.1uF
C34
0.1uF
C35
0.1uF
P1
SCL P19
MOSI P15
SCK P13
P7
+5V
P4
BTN_B P11
P20 SDA
P14 MISO
P8
P6
P5 BTN_A
Nordic Breakout
E1
C24
2.2pF
L5
3.3nH
L6
4.7nH
L7
10nH
C25
1.0pF
C26
1.5pF
C27
2.2nF
ANT2
ANT1
VDD_PA
R20
10k
BTN_A
A1
R21
10k
BTN_B
B1
R14
10k
R15
10k
SCL
SDA
ACCEL
C36
1uF
C37
0.1uF
U8
VDD
SCL
INT1
BYP
INT2
SDA
GND
VDDIO
GND
GND
MMA8653FCR1
C43
0.1uF
C44
0.1uF
ROW1
ROW2
ROW3
LED1.1
LED1.2
LED1.3
LED1.4
LED1.5
LED1.6
LED1.7
LED1.8
LED1.9
LED2.1
LED2.2
LED2.3
LED2.4
LED2.5
LED2.6
LED2.7
LED3.1
LED3.2
LED3.3
LED3.4
LED3.5
LED3.6
LED3.7
LED3.8
LED3.9
R22
220
R23
220
R28
220
R43
220
R44
220
R45
220
R46
220
R47
220
R48
220
COL1
COL2
COL3
COL4
COL5
COL6
COL7
COL8
COL9
UNB
Title: *
Electrical and Computer Engineering
University of New Brunswick
Date: 9/29/2020
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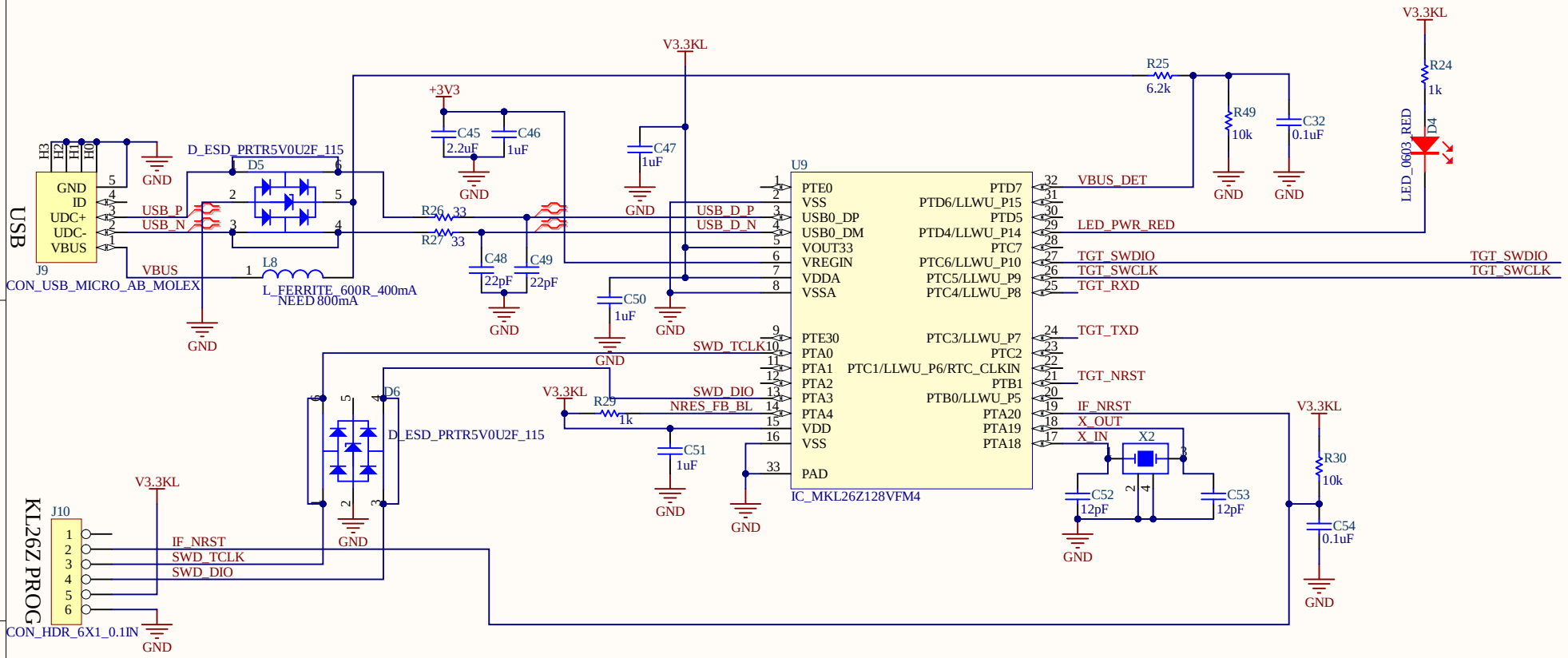
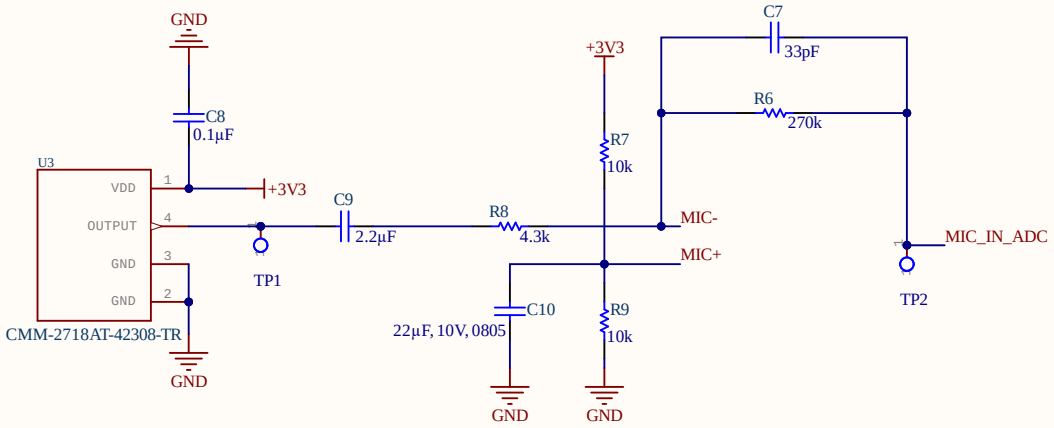
Sheet: * of *
Filename: Microbit built-in.SchDoc
Designed by:

Programmer

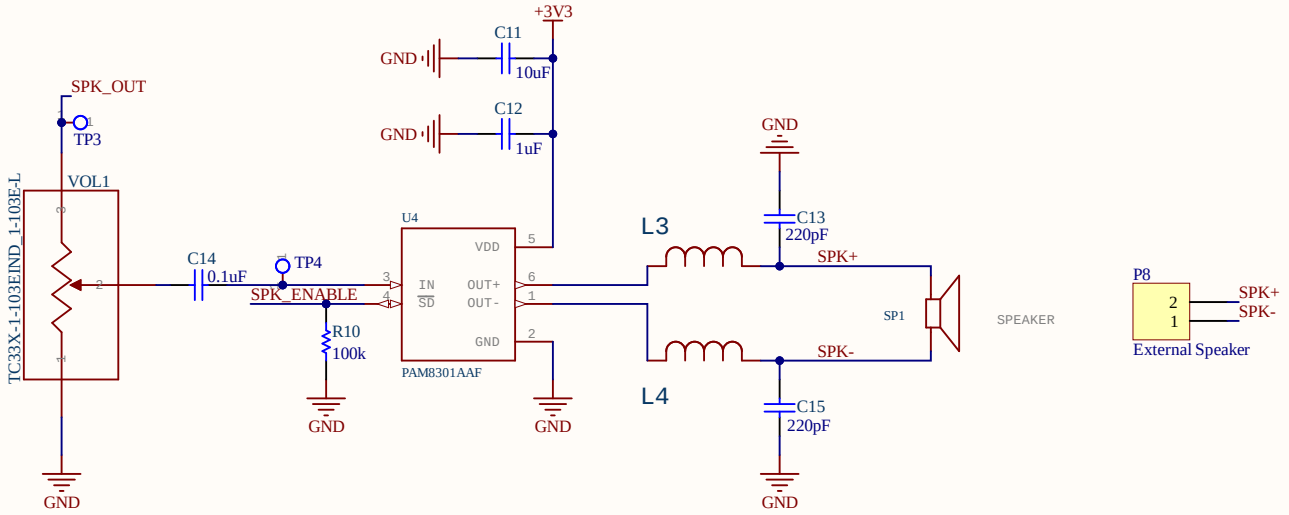


UNB EST. 1785	Title: *	
	Electrical and Computer Engineering **University of New Brunswick**	
Date: 9/29/2020	Rev: 1	Sheet: * of *
File: Micro:bit Programming Interface.SchDoc	Designed by:	

Microphone

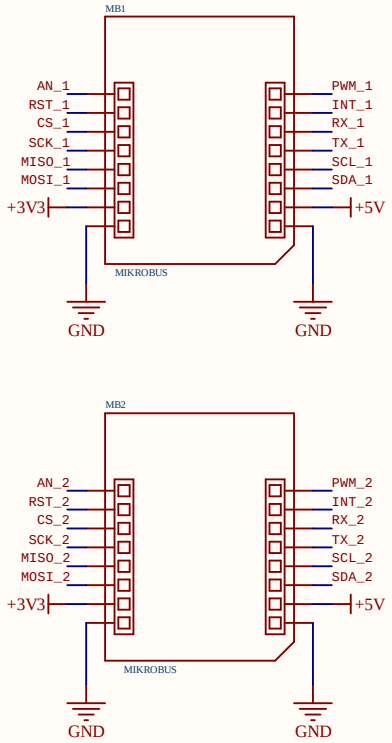


Speaker



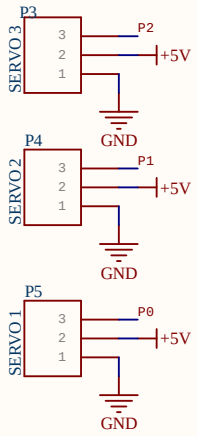
UNB EST. 1785	Title: *		
	Electrical and Computer Engineering *University of New Brunswick*		
Date: 9/29/2020		*Rev:* 1	*Sheet:* * *of* *
Filename: Microphone and Speaker.SchDoc		*Designed by:*	

Mikrobus

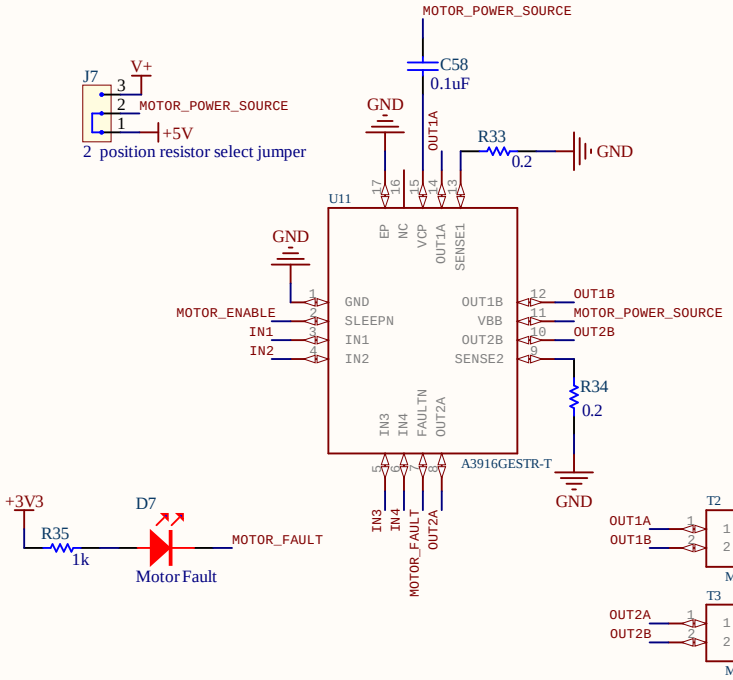


UNB EST. 1785	*Title:* *		
	Electrical and Computer Engineering ***University of New Brunswick***		
Date: 9/29/2020		*Rev:* 1	*Sheet:* * *of* *
Filename: Mikrobus.SchDoc		*Designed by:*	

Servo Headers

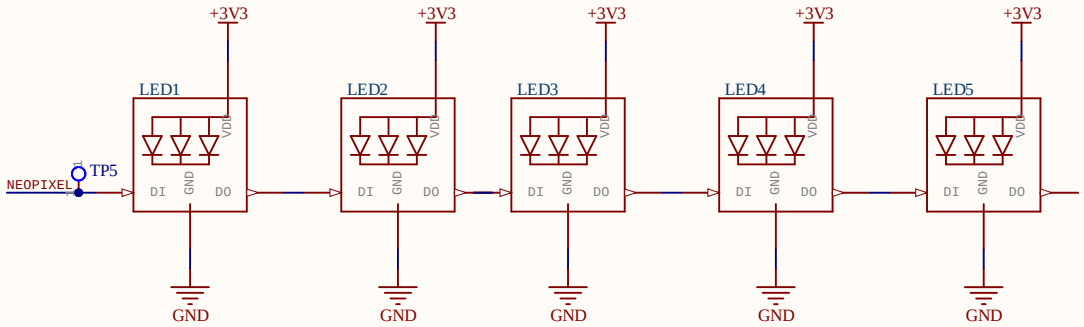


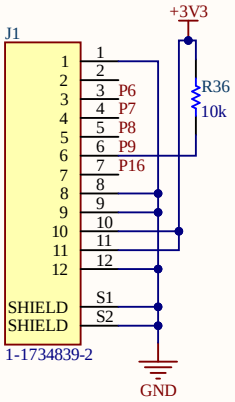
Motor Driver



UNB EST.1785	Title: *	
	Electrical and Computer Engineering *University of New Brunswick*	
Date: 9/29/2020	Rev: 1	Sheet: * of *
Filename: Motor Driver.SchDoc	Designed by:	

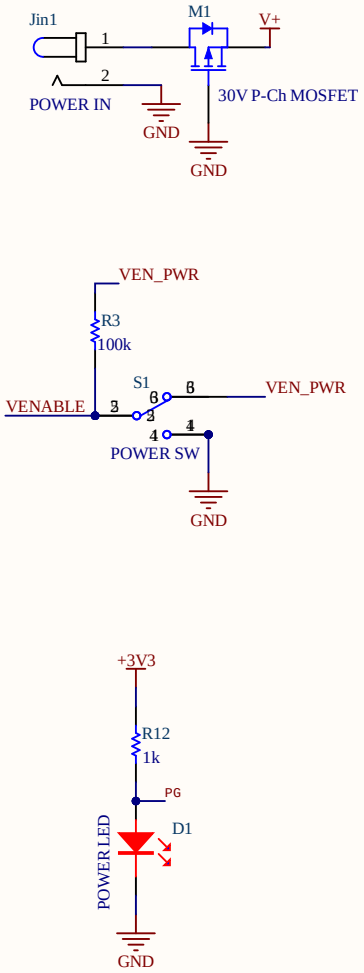
NeoPixels



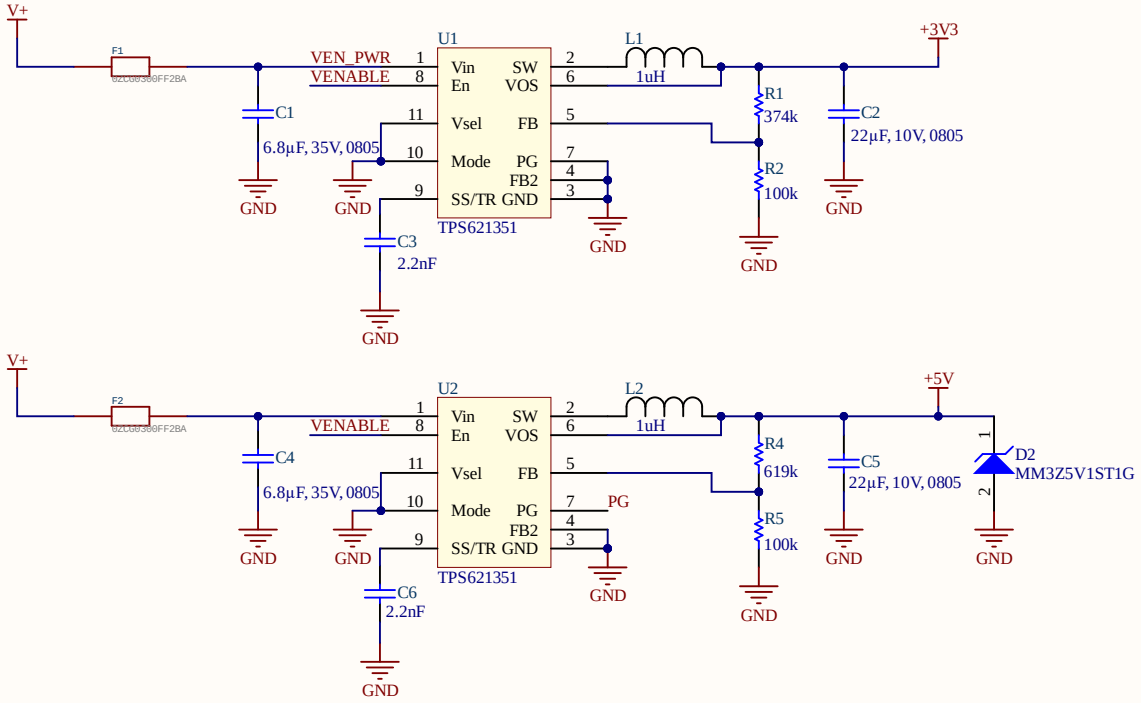


UNB EST.1785	Title: *		
	Electrical and Computer Engineering **University of New Brunswick**		
Date: 9/29/2020	Rev: 1	Sheet: * of *	
File: NeoPixels and OLED Display.SchDoc	Designed by:		

Switching



DC-DC Converter



UNB EST. 1785	Title: *		
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Date: 9/29/2020		*Rev:* 1	*Sheet:* * *of* *
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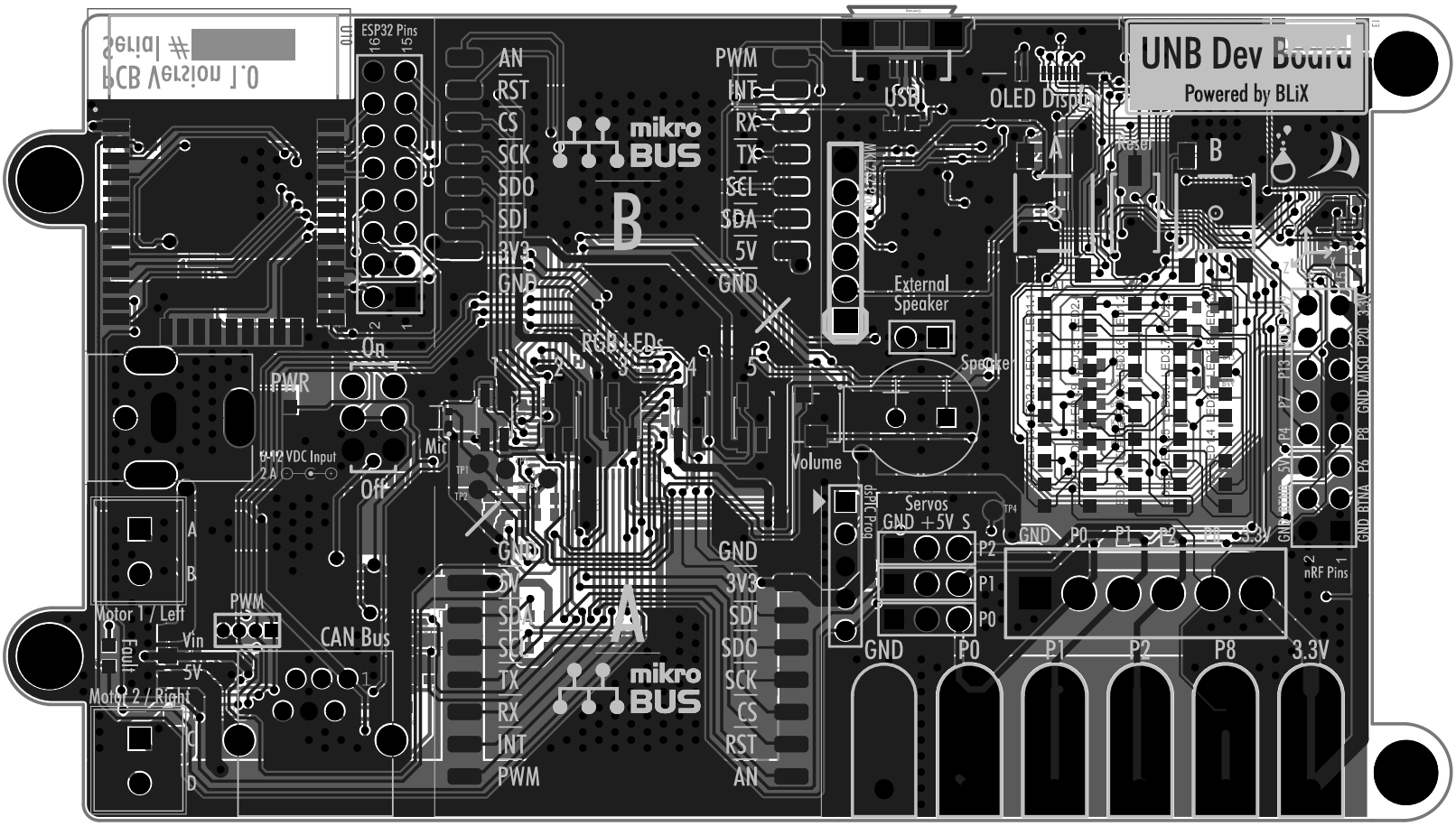
UNB Dev Board
Powered by BLiX
mikro BUS
mikro BUS
ESP32 Pins
AN
RST
CS
SCK
SDO
SDI
3V3
GND
PWM
INT
RX
TX
SCL
SDA
5V
GND
USB
OLED Display
External Speaker
Speaker
RGB LEDs
PWR
6-12 VDC Input 2 A
Off
Mic
Volume
Servos GND +5V S
P2
P1
P0
GND
P0
P1
P2
P8
3.3V
nRF Pins
Motor 1 / Left
Motor 2 / Right
PWM
CAN Bus
Vin
5V
GND
3V3
SDI
SDO
SCK
CS
RST
AN
PWM
INT
RX
TX
SCL
SDA
5V
GND
Reset
A
B