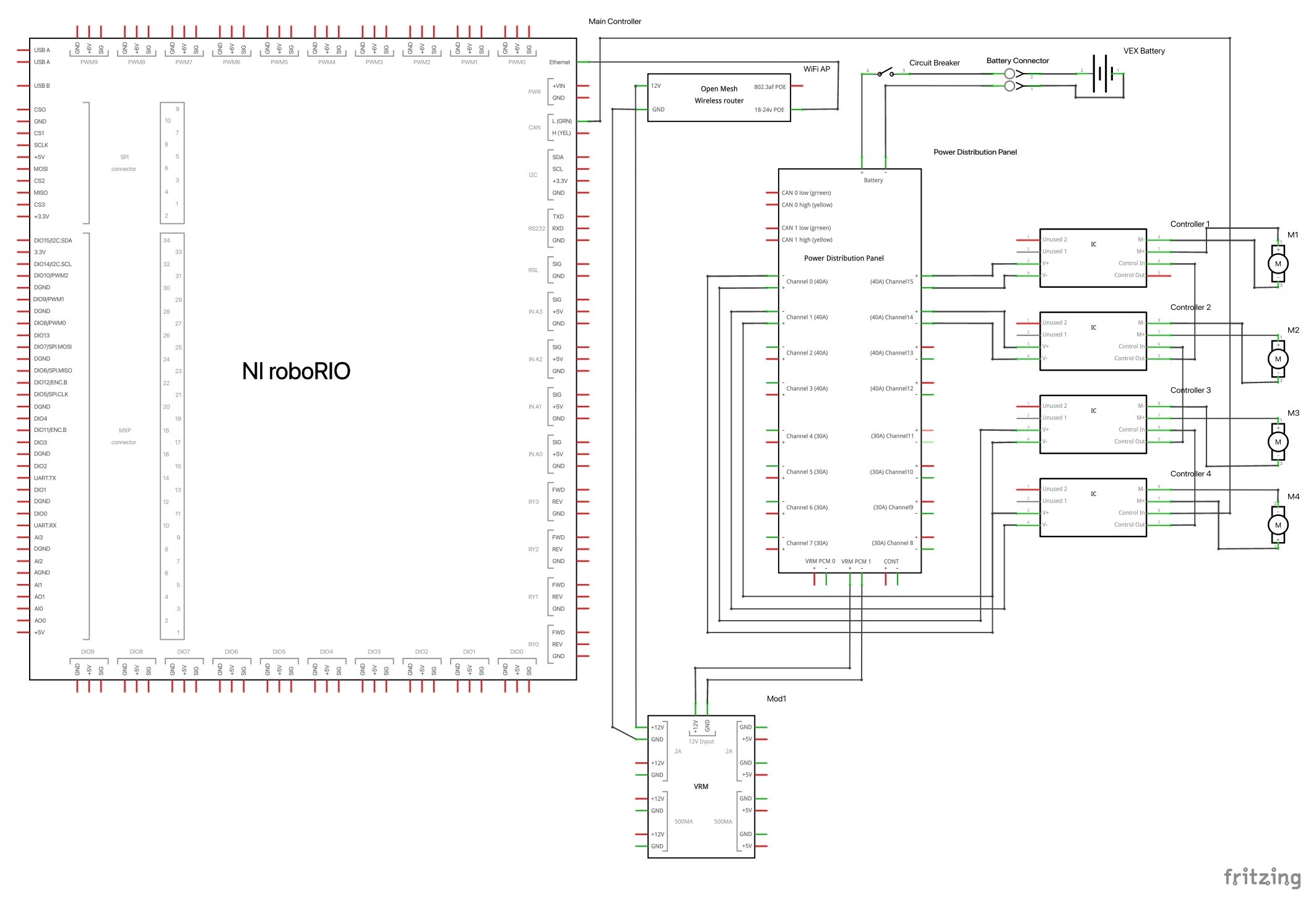
Main Controller
NI roboRIO
USB A
USB A
USB B
CSO
GND
CS1
SCLK
+5V
MOSI
CS2
MISO
CS3
+3.3V
SPI
connector
DIO15/I2C.SDA
3.3V
DIO14/I2C.SCL
DIO10/PWM2
DGND
DIO9/PWM1
DGND
DIO8/PWM0
DIO13
DIO7/SPI.MOSI
DGND
DIO6/SPI.MISO
DIO12/ENC.B
DIO5/SPI.CLK
DGND
DIO4
DIO11/ENC.B
DIO3
DGND
DIO2
UART.TX
DIO1
DGND
DIO0
UART.RX
AI3
DGND
AI2
AGND
AI1
AO1
AI0
AO0
+5V
MXP
connector
PWM9
PWM8
PWM7
PWM6
PWM5
PWM4
PWM3
PWM2
PWM1
PWM0
Ethernet
PWR
+VIN
GND
CAN
L (GRN)
H (YEL)
I2C
SDA
SCL
+3.3V
GND
RS232
TXD
RXD
GND
RSL
SIG
GND
IN A3
SIG
+5V
GND
IN A2
SIG
+5V
GND
IN A1
SIG
+5V
GND
IN A0
SIG
+5V
GND
RY3
FWD
REV
GND
RY2
FWD
REV
GND
RY1
FWD
REV
GND
RY0
FWD
REV
GND
DIO9
DIO8
DIO7
DIO6
DIO5
DIO4
DIO3
DIO2
DIO1
DIO0
WiFi AP
12V
GND
Open Mesh
Wireless router
802.3af POE
18-24v POE
Circuit Breaker
Battery Connector
VEX Battery
Power Distribution Panel
Battery
CAN 0 low (grreen)
CAN 0 high (yellow)
CAN 1 low (grreen)
CAN 1 high (yellow)
Power Distribution Panel
Channel 0 (40A)
Channel 1 (40A)
Channel 2 (40A)
Channel 3 (40A)
Channel 4 (30A)
Channel 5 (30A)
Channel 6 (30A)
Channel 7 (30A)
(40A) Channel15
(40A) Channel14
(40A) Channel13
(40A) Channel12
(30A) Channel11
(30A) Channel10
(30A) Channel9
(30A) Channel 8
VRM PCM 0
VRM PCM 1
CONT
Controller 1
Controller 2
Controller 3
Controller 4
Unused 2
Unused 1
V+
V-
IC
M-
M+
Control In
Control Out
M1
M2
M3
M4
Mod1
+12V
GND
12V Input
2A
VRM
500MA
+5V