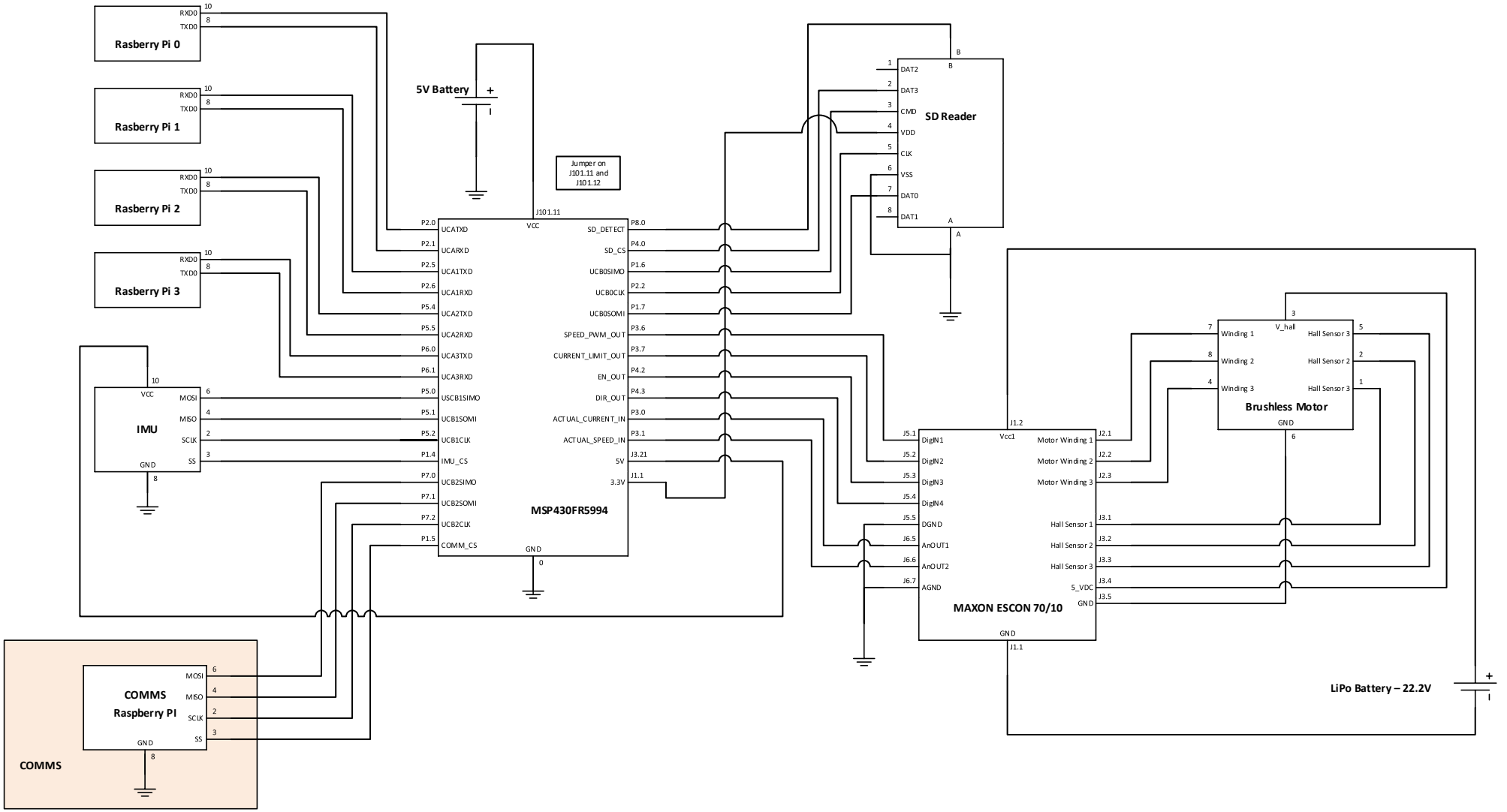
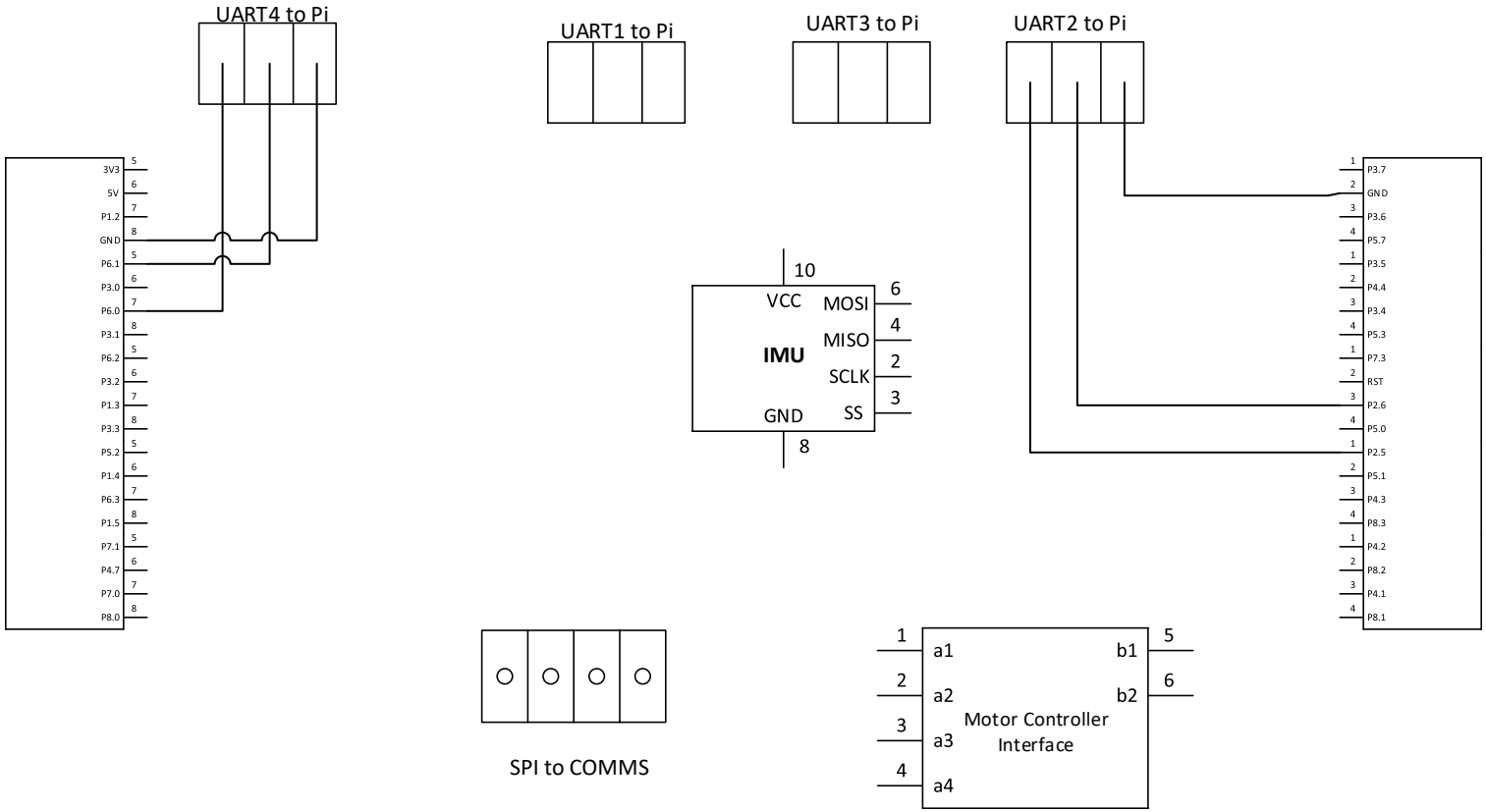
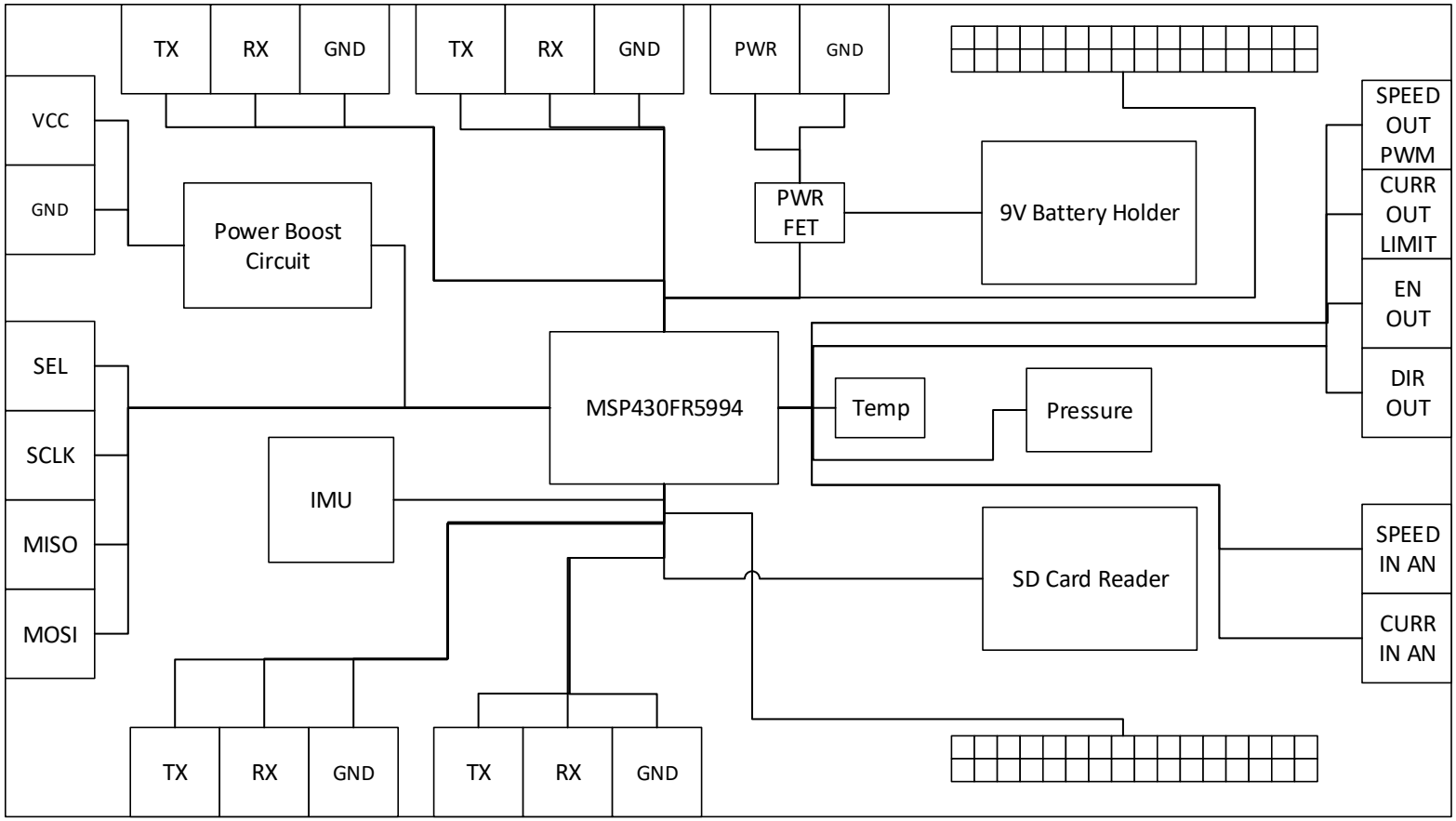
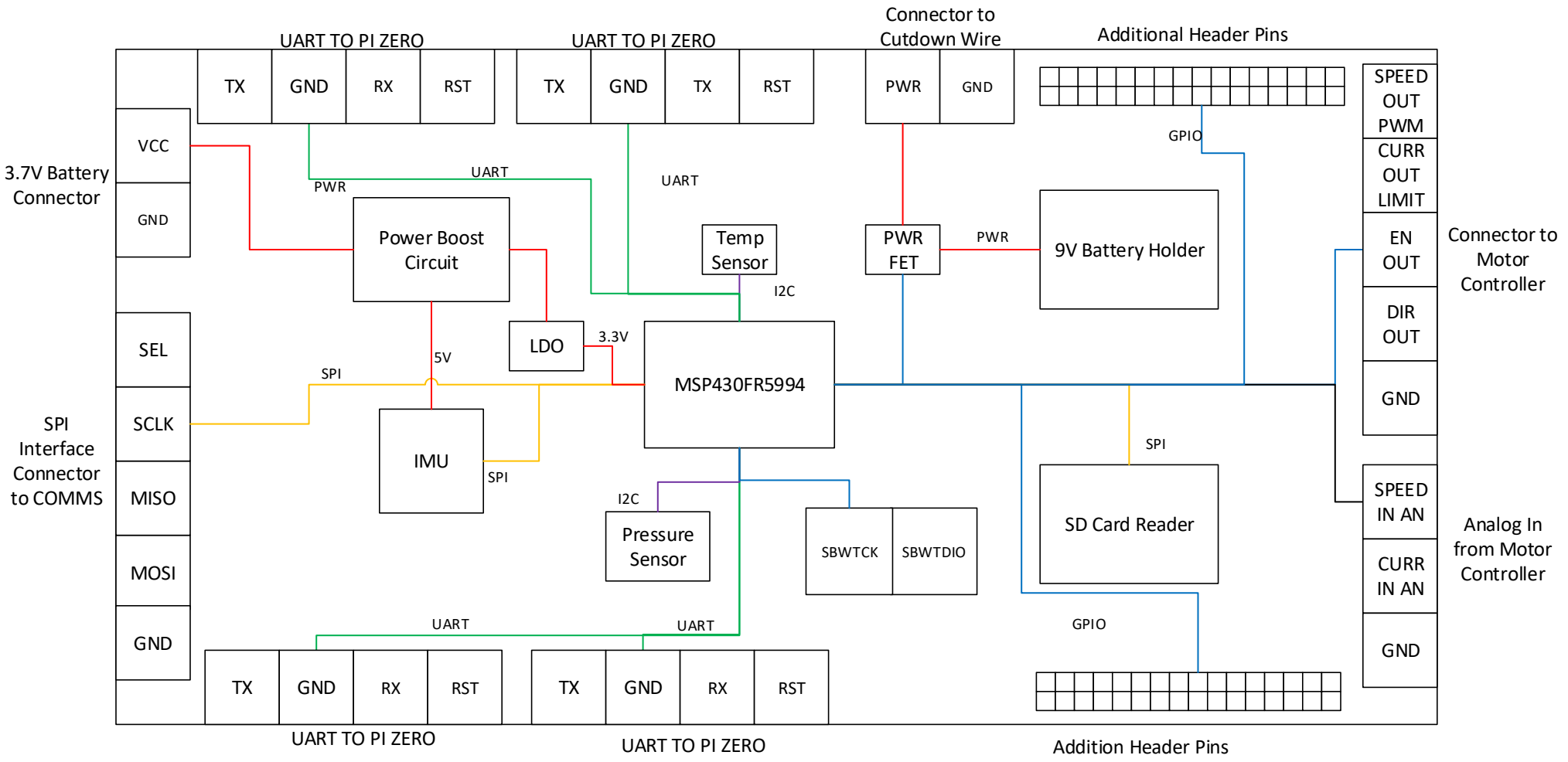
DAQCS – HOST CONTROLLER INTERFACE SCHEMATIC



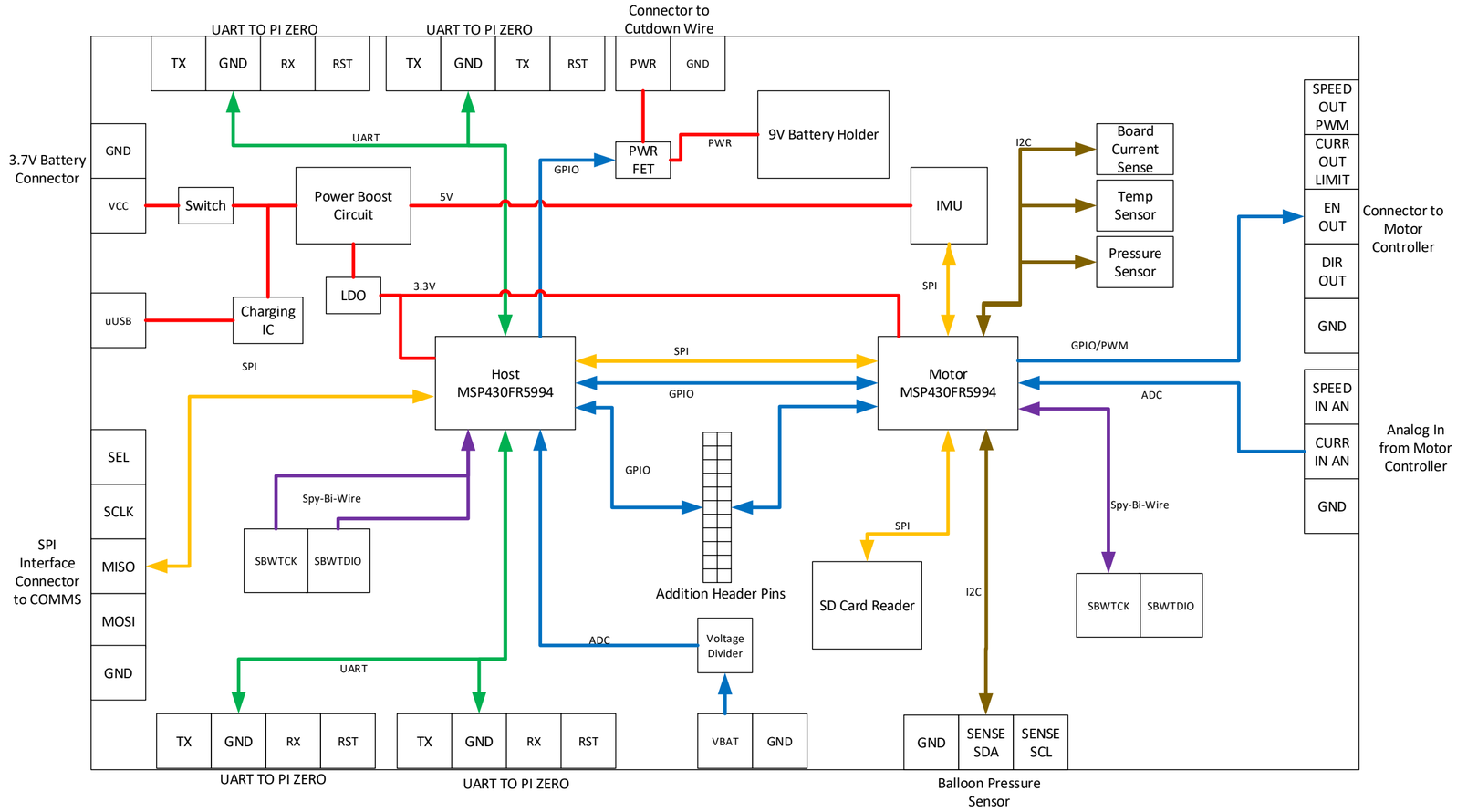

UART4 to Pi
UART1 to Pi
UART3 to Pi
UART2 to Pi
3V3 5
5V 6
P1.2 7
GND 8
P6.1 5
P3.0 6
P6.0 7
P3.1 8
P6.2 5
P3.2 6
P1.3 7
P3.3 8
P5.2 5
P1.4 6
P6.3 7
P1.5 8
P7.1 5
P4.7 6
P7.0 7
P8.0 8
10
VCC
MOSI 6
IMU
MISO 4
SCLK 2
GND
SS 3
8
1 P3.7
2 GND
3 P3.6
4 P5.7
1 P3.5
2 P4.4
3 P3.4
4 P5.3
1 P7.3
2 RST
3 P2.6
4 P5.0
1 P2.5
2 P5.1
3 P4.3
4 P8.3
1 P4.2
2 P8.2
3 P4.1
4 P8.1
SPI to COMMS
1 a1
2 a2
3 a3
4 a4
b1 5
b2 6
Motor Controller
Interface


TX
RX
GND
TX
RX
GND
PWR
GND
VCC
GND
Power Boost Circuit
PWR FET
9V Battery Holder
SPEED OUT PWM
CURR OUT LIMIT
EN OUT
DIR OUT
SEL
SCLK
MISO
MOSI
MSP430FR5994
Temp
Pressure
IMU
SD Card Reader
SPEED IN AN
CURR IN AN
TX
RX
GND
TX
RX
GND

DAQCS - MSP430 Host Controller Board



DAQCS - MSP430 Host Controller Board



DAQCS - MSP430 Host Controller Board