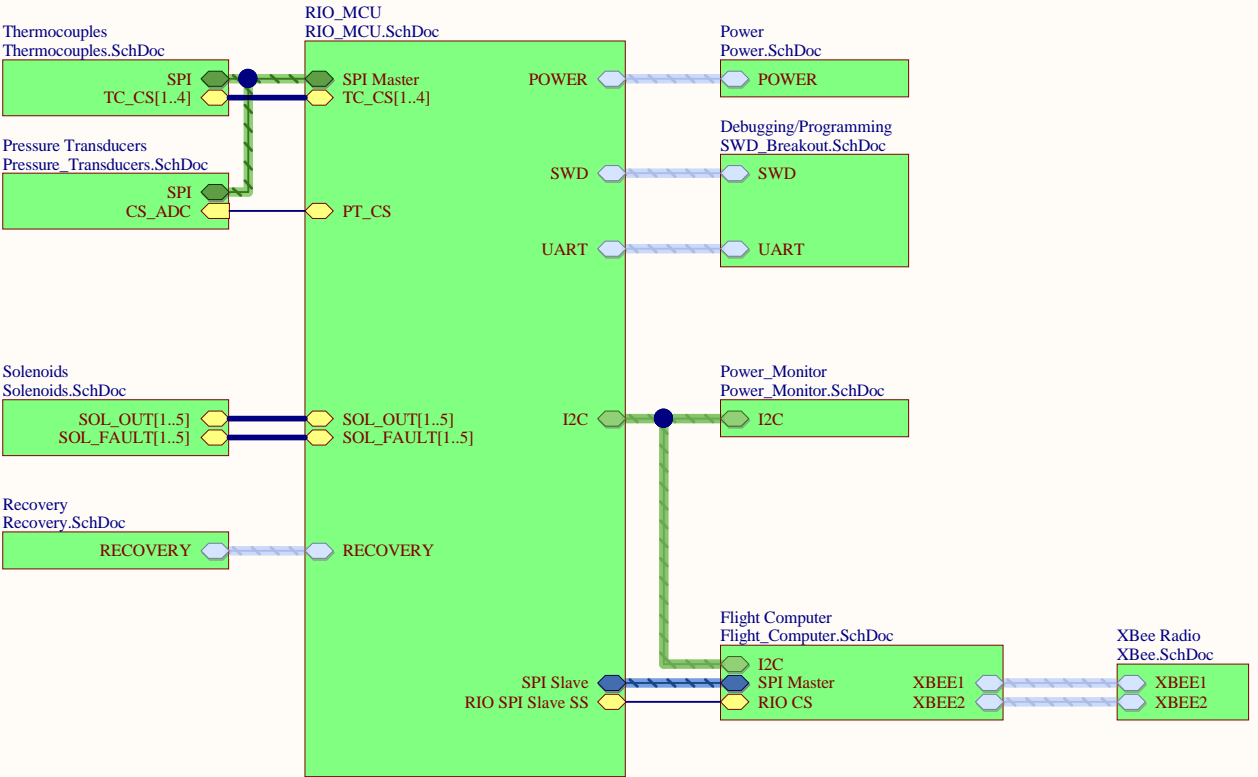
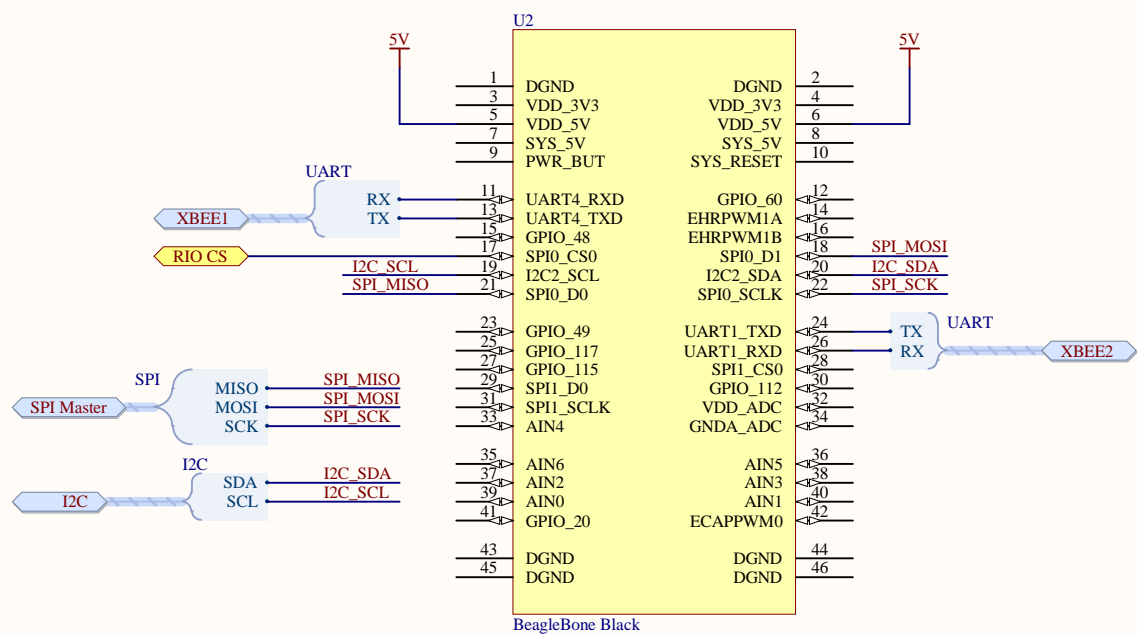


A

D

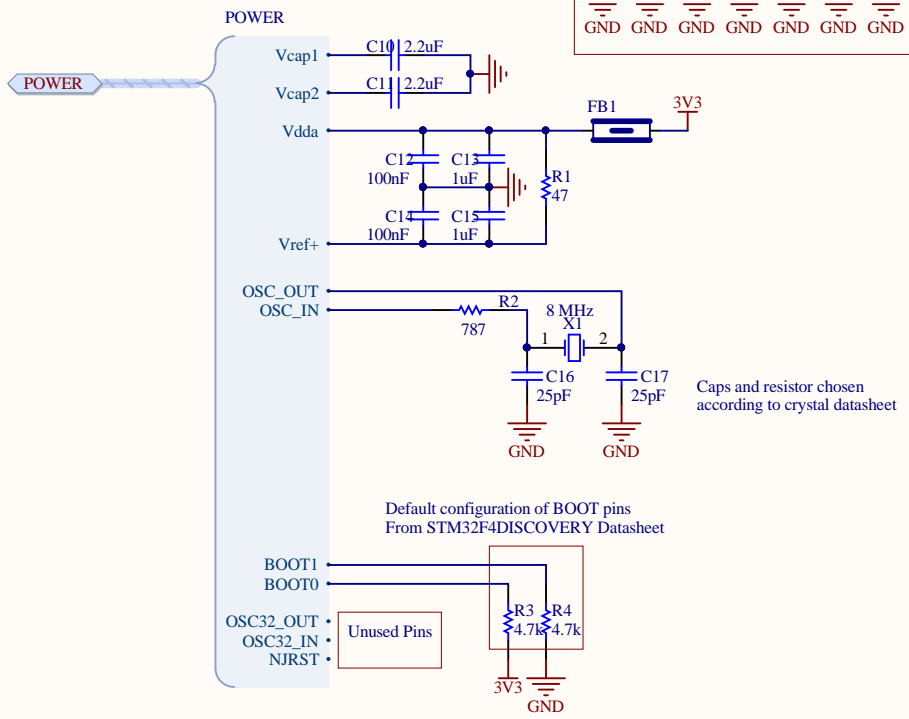
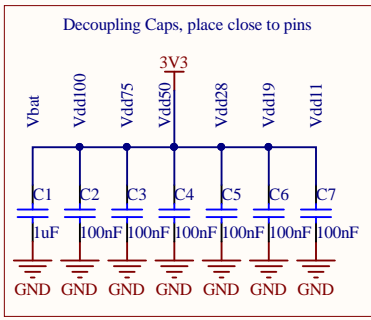
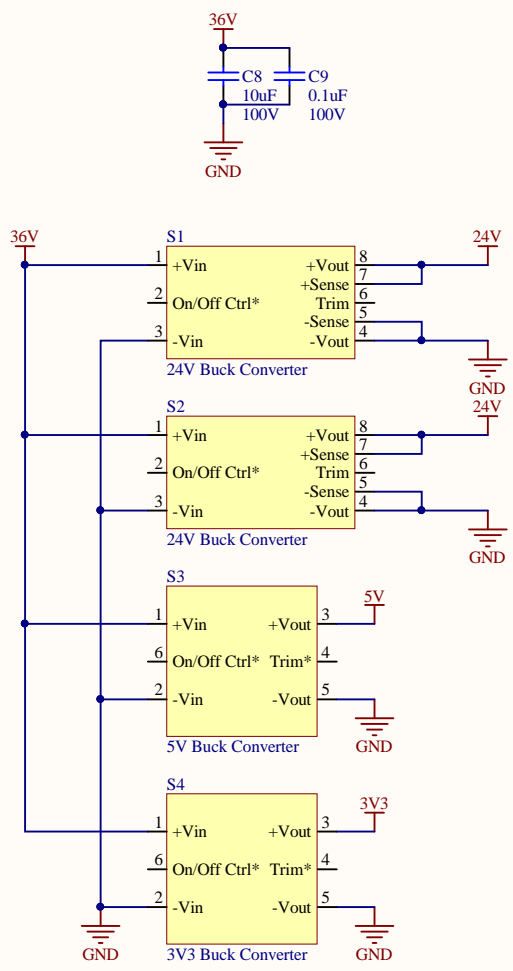
Top Level Block Diagram





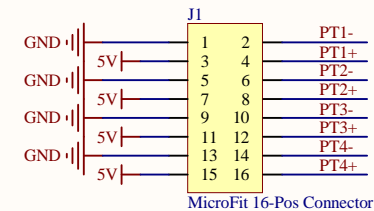
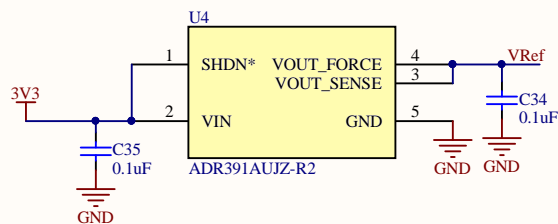
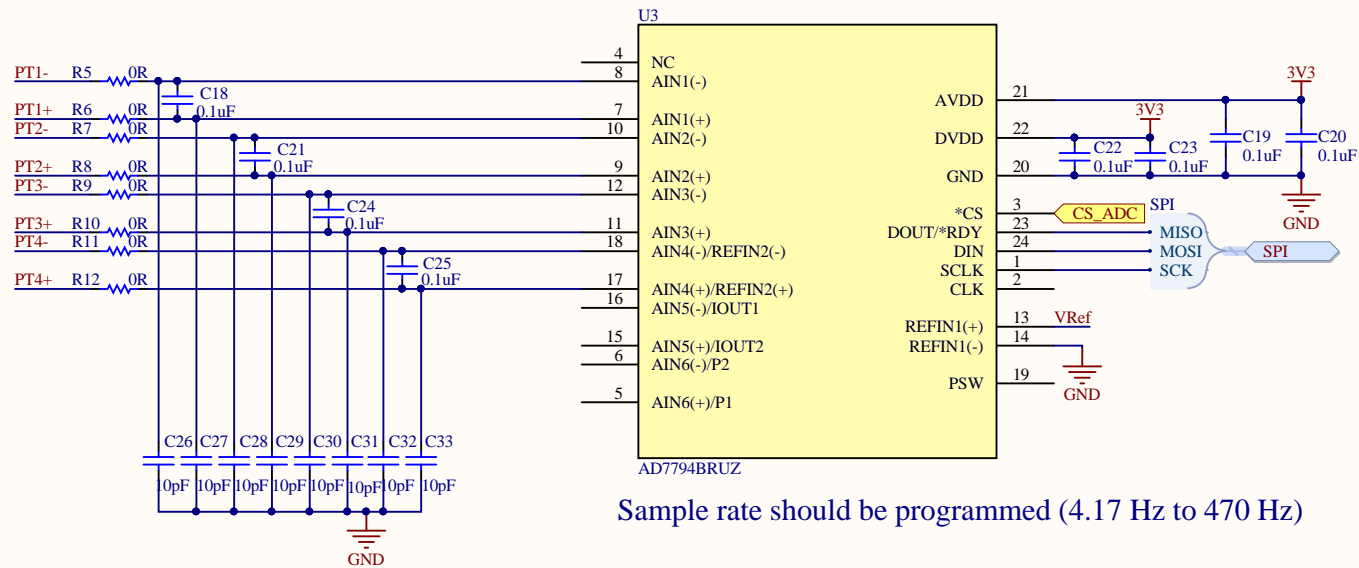
Power

Voltage Regulation



Crystal Resistor/Capacitor were chosen thanks to this document
http://www.st.com/content/ccc/resource/technical/document/application_note/c6/eb/5e/11/e3/69/43/eb/CD00221665.pdf/files/CD00221665.pdf/jcr:content/translations/en.CD00221665.pdf

24 bit ADC with SPI interface



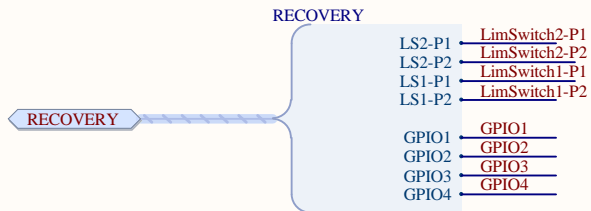
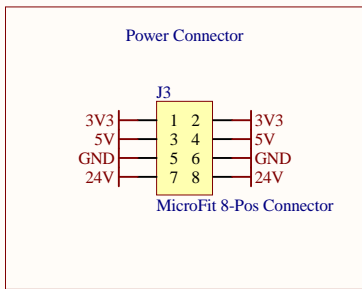
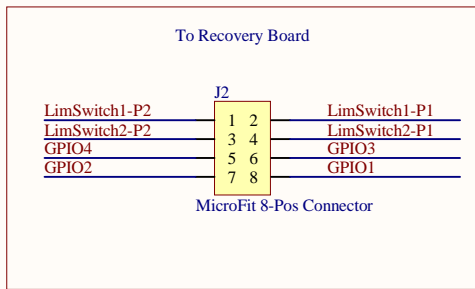
http://www.analog.com/media/en/technical-documentation/data-sheets/AD7794_7795.pdf

http://www.analog.com/media/en/technical-documentation/data-sheets/ADR391_392_395.pdf

<https://electronics.stackexchange.com/questions/271732/does-common-mode-noise-only-affect-single-ended-signals>

<https://electronics.stackexchange.com/questions/263424/proper-method-to-filter-inputs-of-a-true-differential-adc>

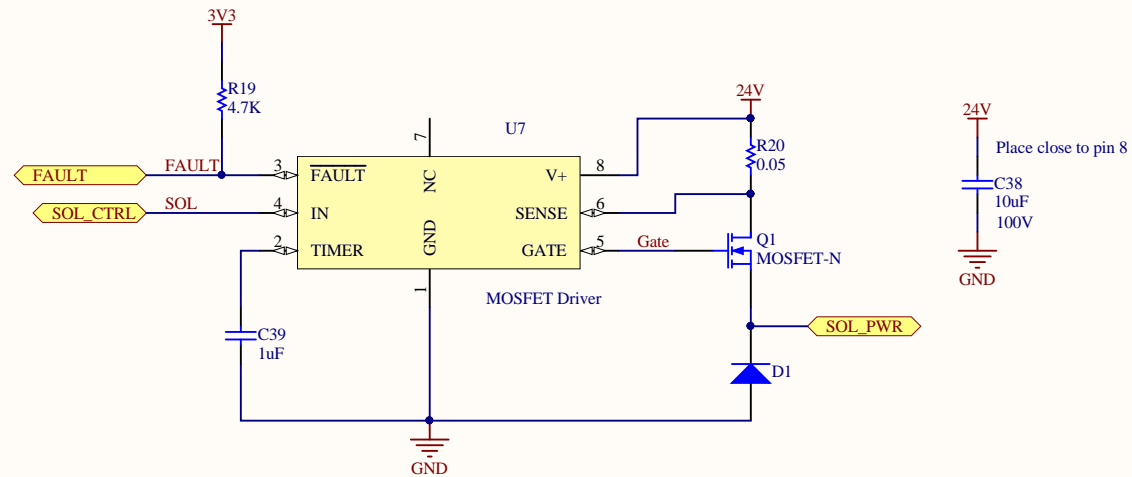
Recovery Driver

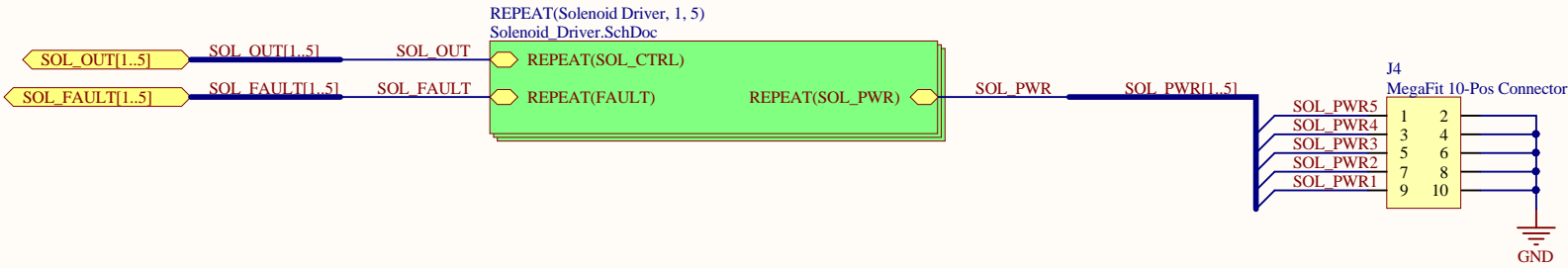


U1 STM32F407xx

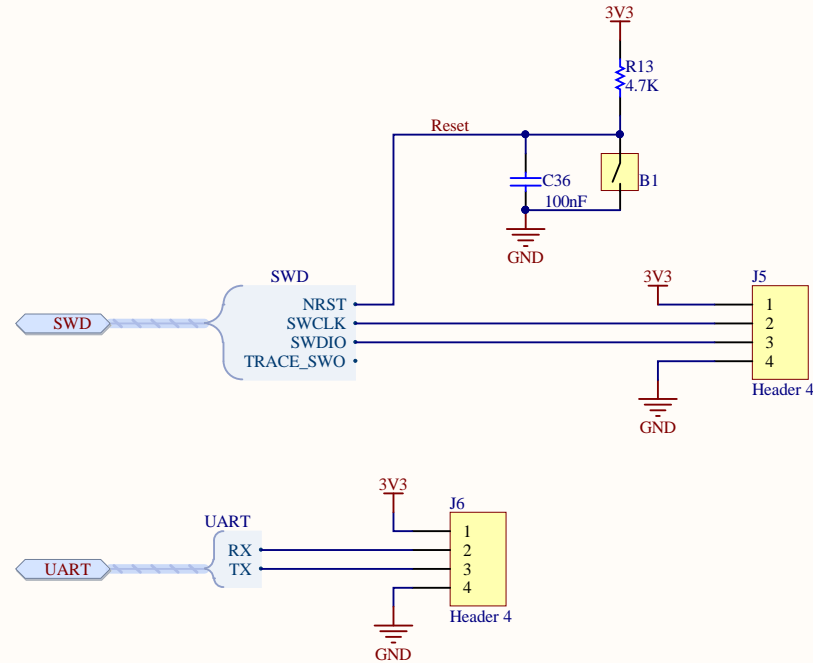


Solenoid Driver






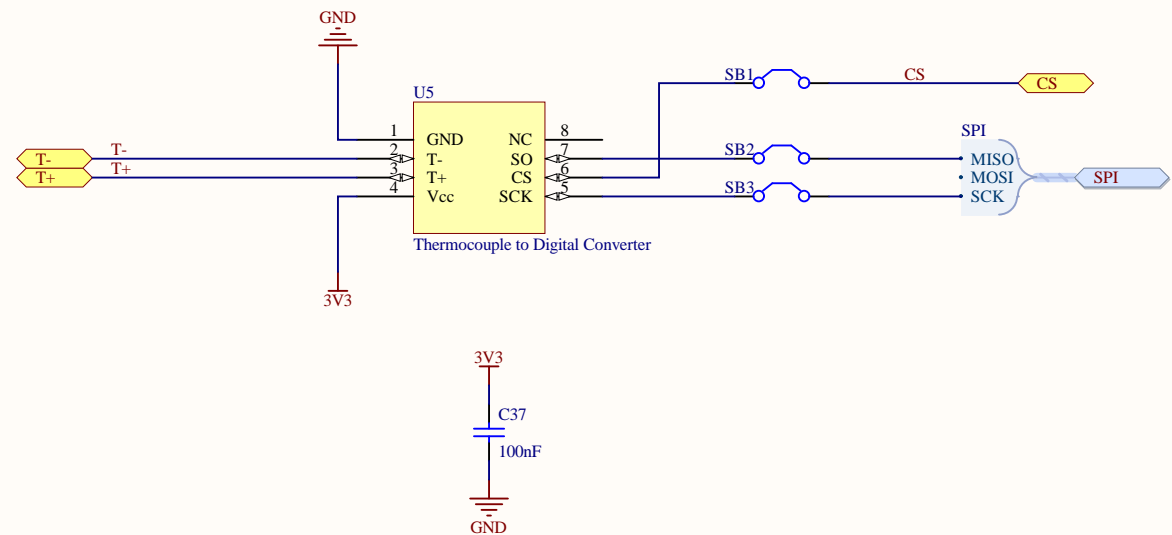
SWD Programming/Debugging Header



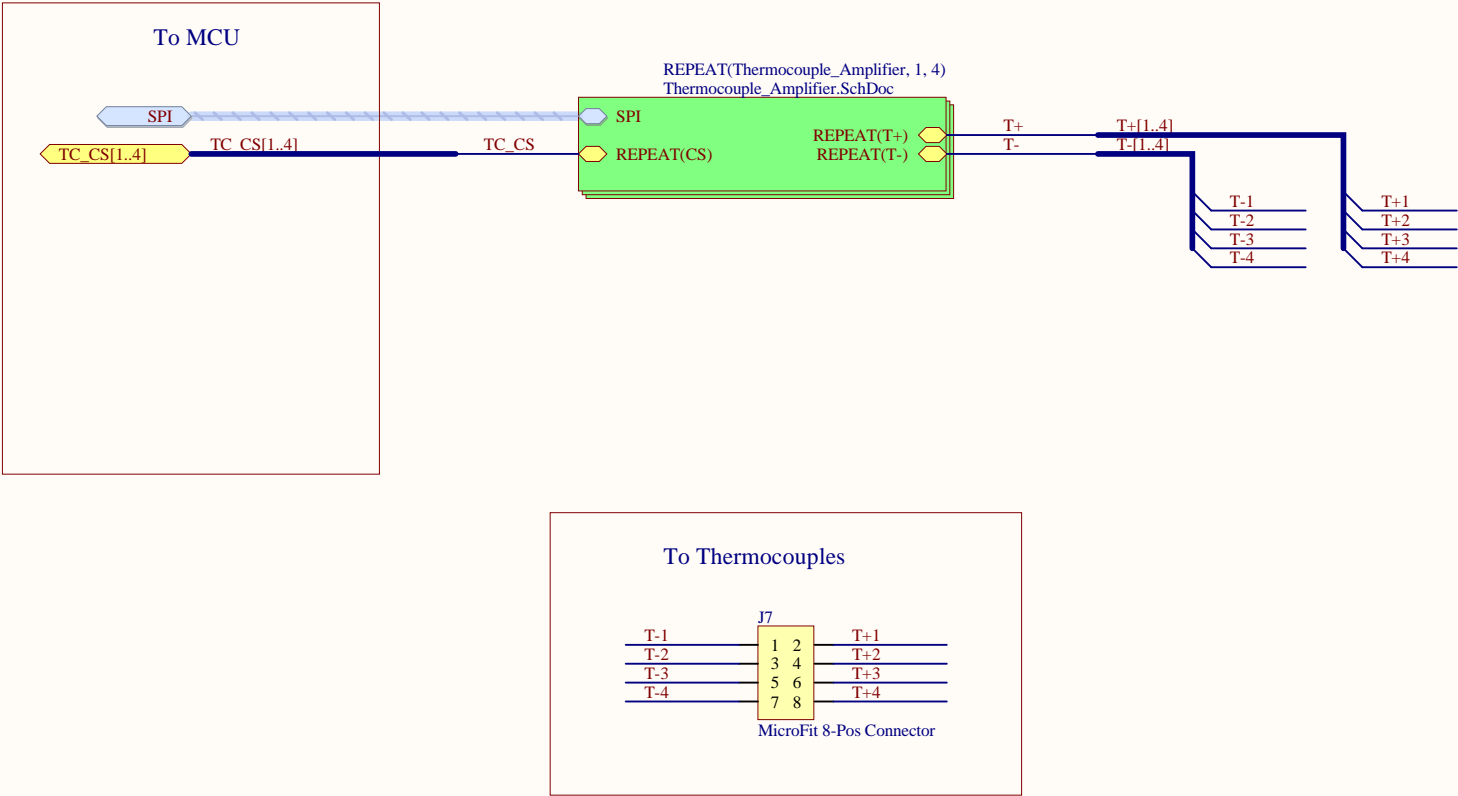
Schematic in reference to DIY ST/Link V2 Programmer for Micromouse
<http://www.micromouseonline.com/2014/01/05/mini-st-linkv2-programmer/>
The exact same microcontroller was sourced for this schematic
A different STM32 variant will require different connections

Title			<div>Altium Limited L3, 12a Rodborough Rd Frenchs Forest NSW Australia 2086</div> <div></div>
Size: Letter	Number:	Revision:	
Date: 2/26/2018	Time: 8:20:19 AM	Sheet of	
File: C:\Users\Public\Documents\Altium\Projects\C.A.M.E.R.O.N\cad\trunk\Schematics\Breakouts\SWD_Breakout.SchDoc			

Thermocouple to Digital Converter

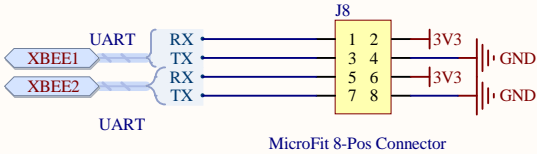


4x Thermocouple Circuits



XBee Connector

2 XBees will be mounted off-board



4.90

6.00

RJ45

PT Legend
GND
5V
PT-
PT+

PT Sensors

TC Sensors

-

+

\$0L 1

\$0L 2

\$0L 3

\$0L 4

\$0L 5

C36

R13

R17

R18

J8

GND

TX

RX

3V3

PE10

PE12

PE14

PB10

PE11

PE13

PE15

PB11

3V3

5V

GND

24V

3V3

5V

GND

24V

SWCLK

SWDIO

GND

RESET

3V3 Regulator

5V Regulator

V+

GND