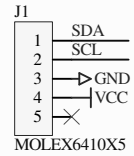


Thermocouple input

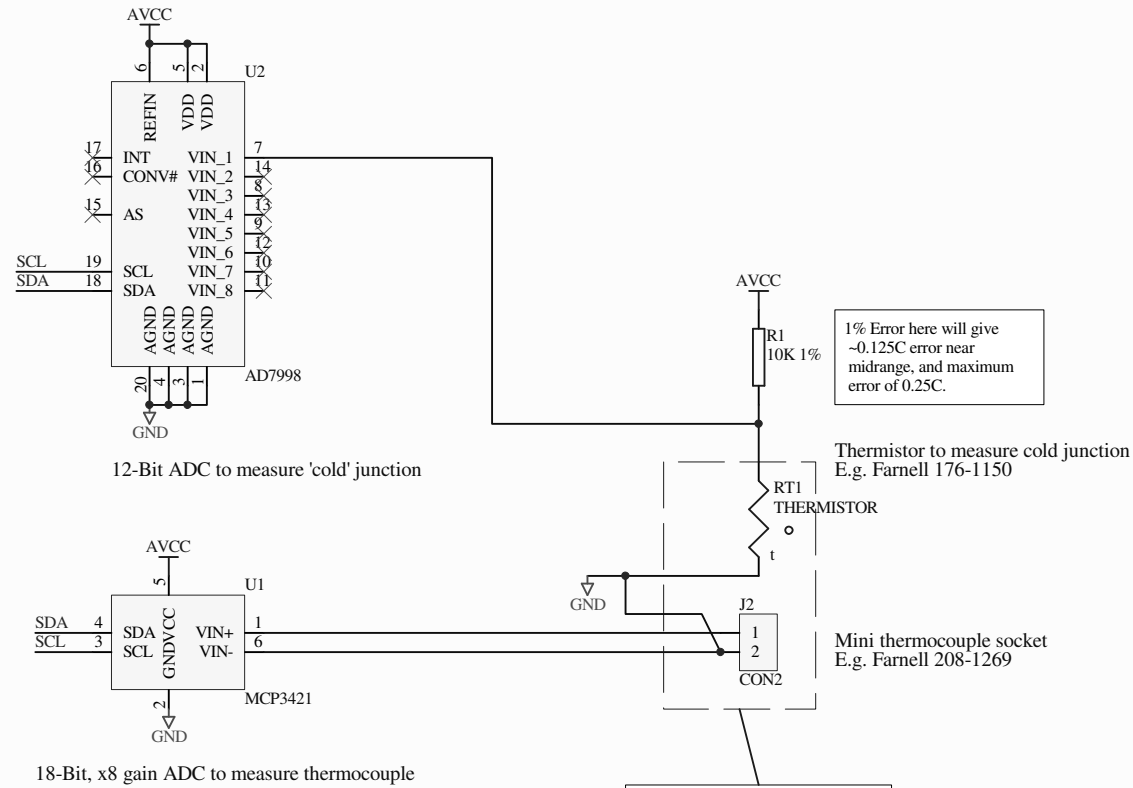
Copyright Micro-Robotics 2012

Note: This circuit may be constructed using the 5624 Analogue I/O Board. Software to drive it is available on our website.



I2C Bus connector

I2C Addressing
AD7998-0 Address: 64
MC3421 A0 Address: 208.



1% Error here will give
-0.125C error near
midrange, and maximum
error of 0.25C.

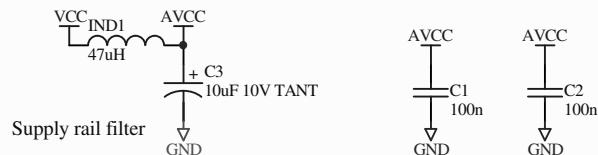
Thermistor to measure cold junction
E.g. Farnell 176-1150

Mini thermocouple socket
E.g. Farnell 208-1269

18-Bit, x8 gain ADC to measure thermocouple

Note: input voltage will be below GND for temperatures lower than the 'cold' junction, but can never exceed the lower common mode limit of 300mV as this is beyond the max 50mV output range of a thermocouple.

The thermistor should be kept in an isothermal zone with the thermocouple socket.



Supply rail filter

Thermocouple input		Micro-Robotics Ltd. The Old Maltings 135 Ditton Walk Cambridge CB5 8QB Tel. +44 (0) 1223 523100
Revision:		
Date:	19-Feb-2014 13:12:51	
Sheet 1 of 1		
File: \\schient\S\data\VM Docn\VM2\VM2 Useful Cets\Sch-Thermocouple.Sch		