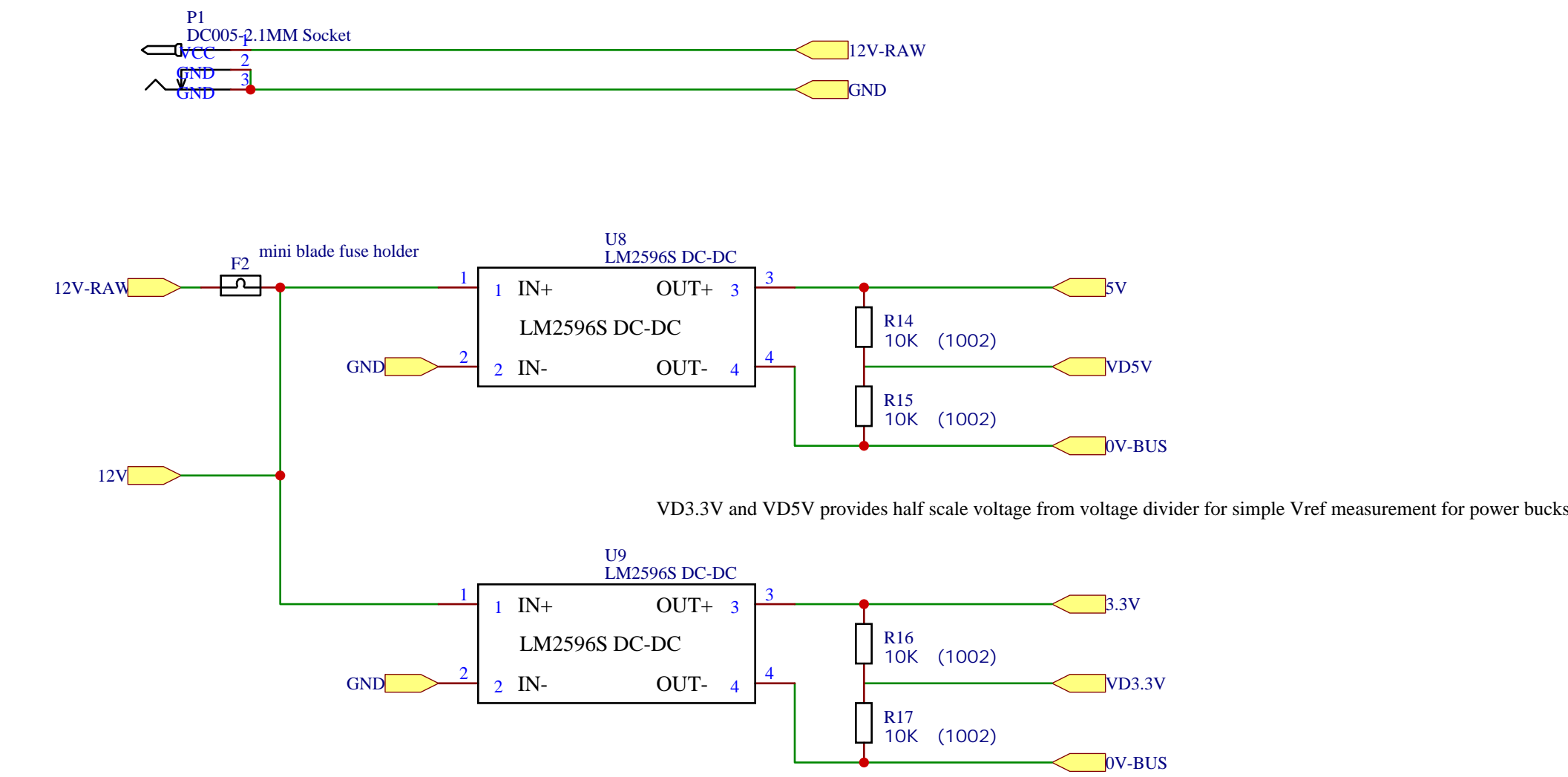
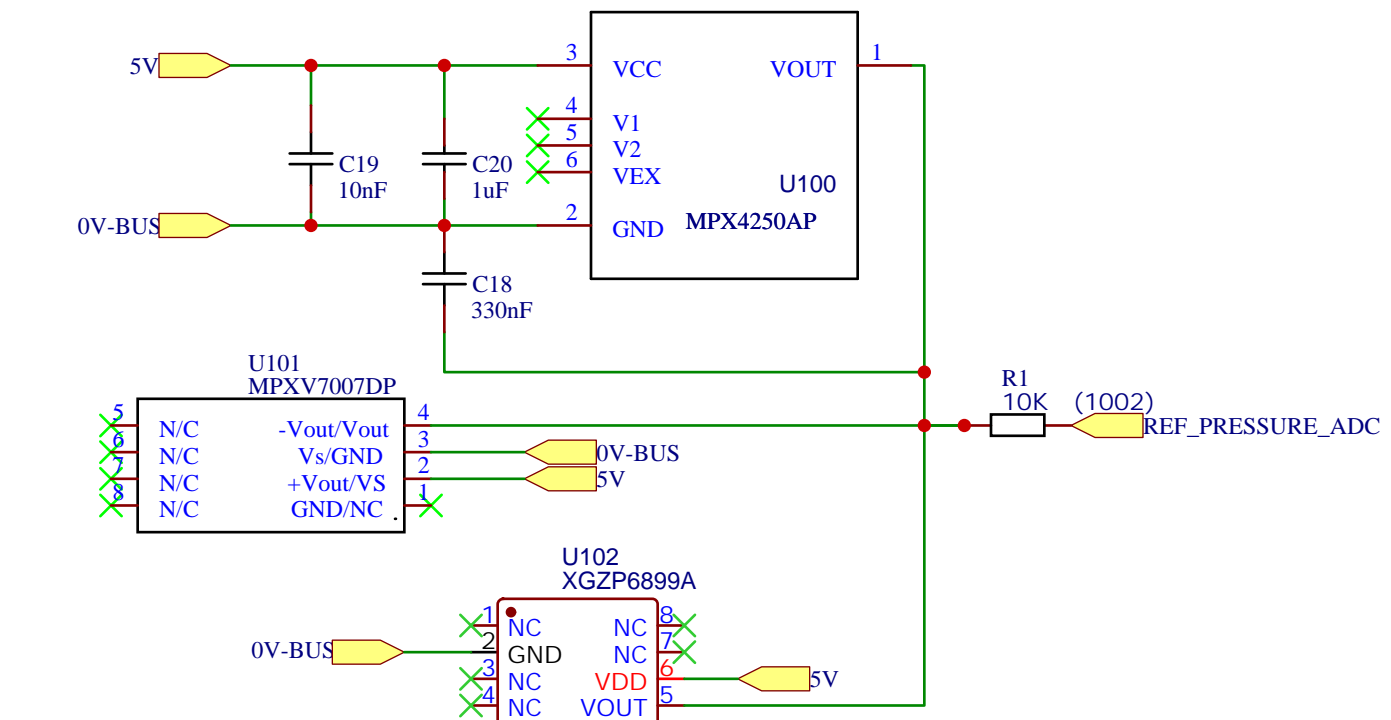


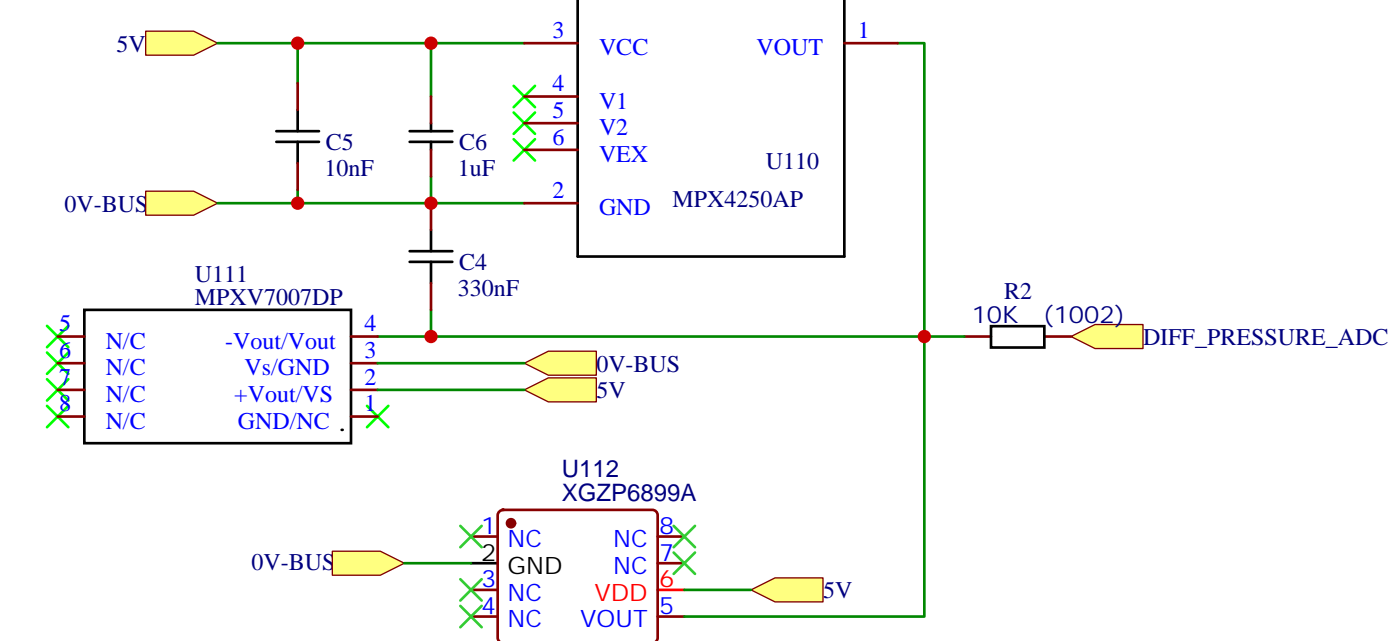
POWER MANAGEMENT



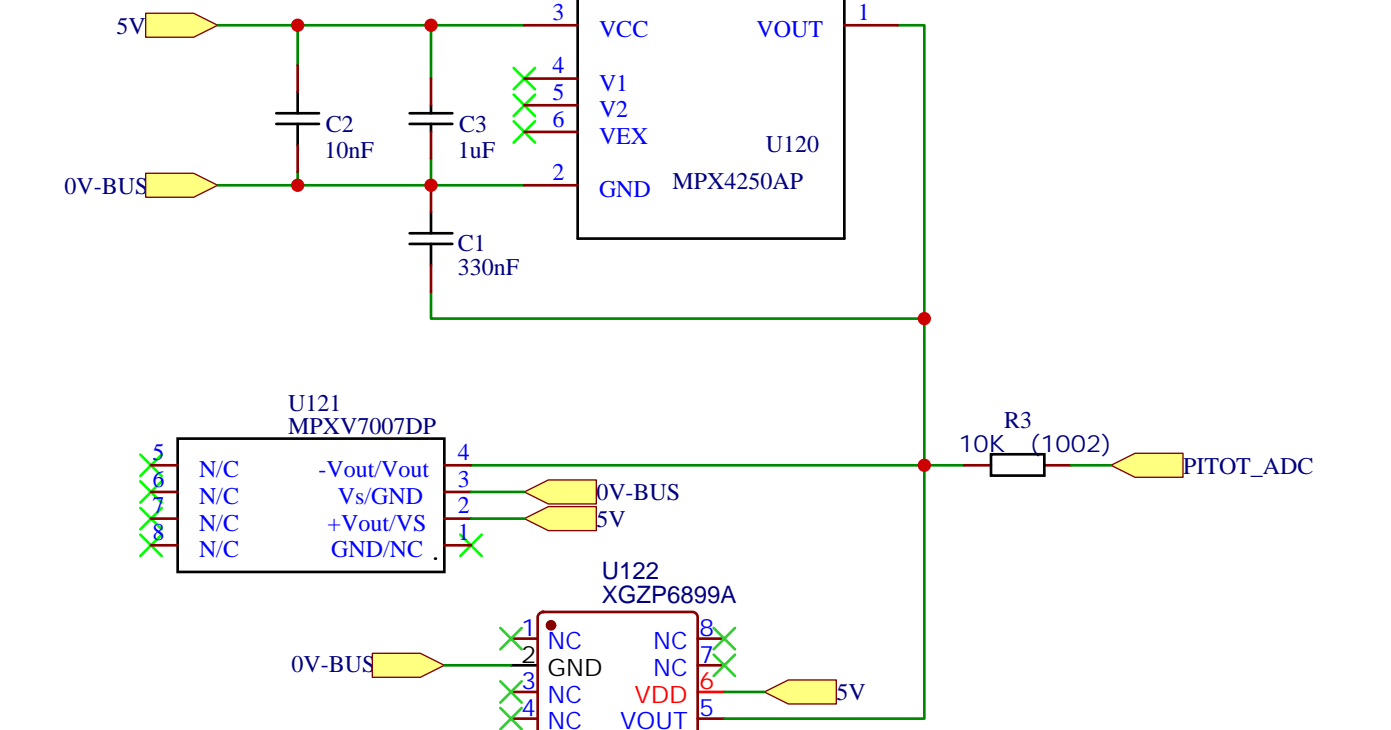
REFERENCE PRESSURE SENSOR



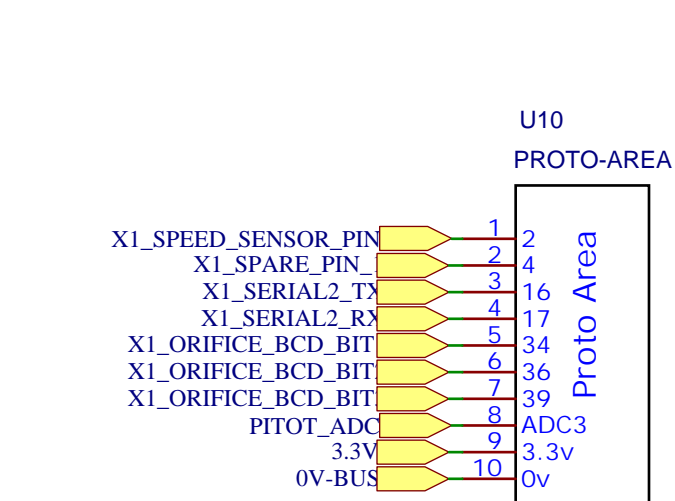
DIFFERENTIAL PRESSURE SENSOR



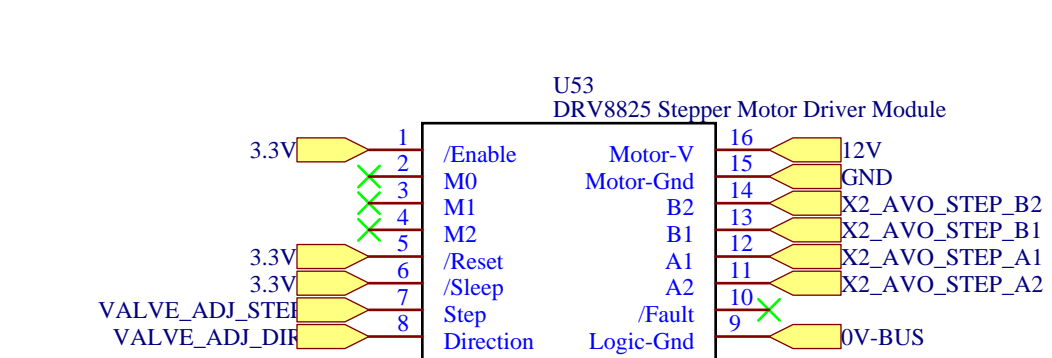
PITOT SENSOR



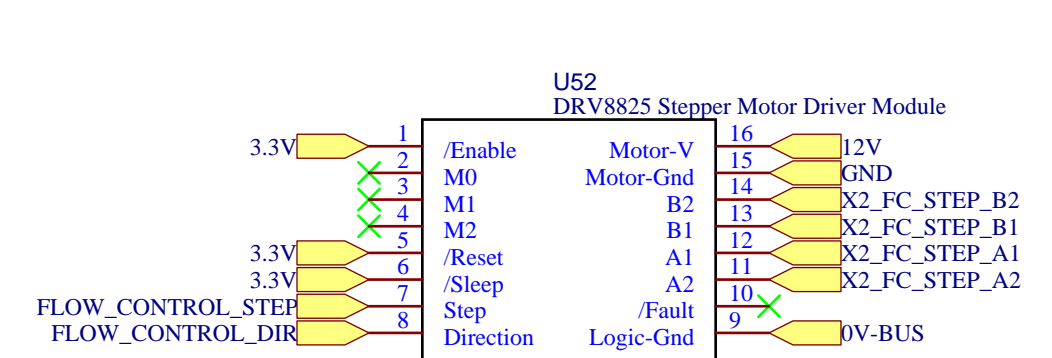
Prototyping Area



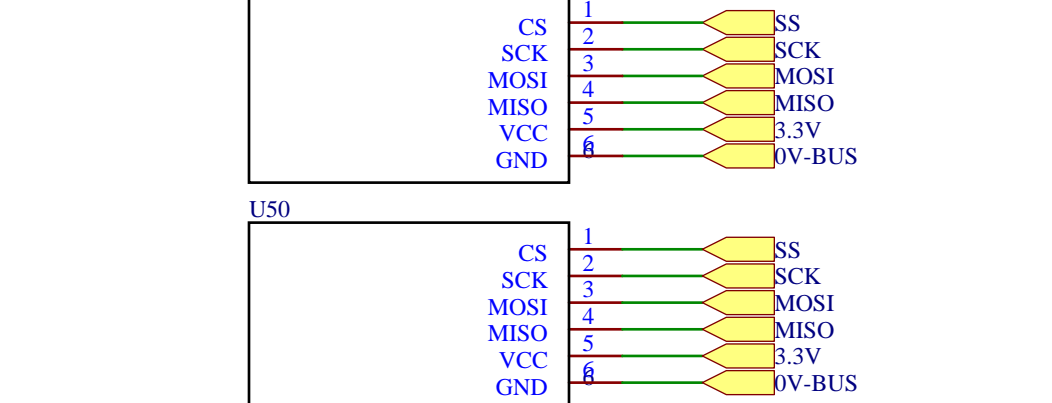
AUTO VALVE STEPPER MOTOR



FLOW CONTROL STEPPER MOTOR

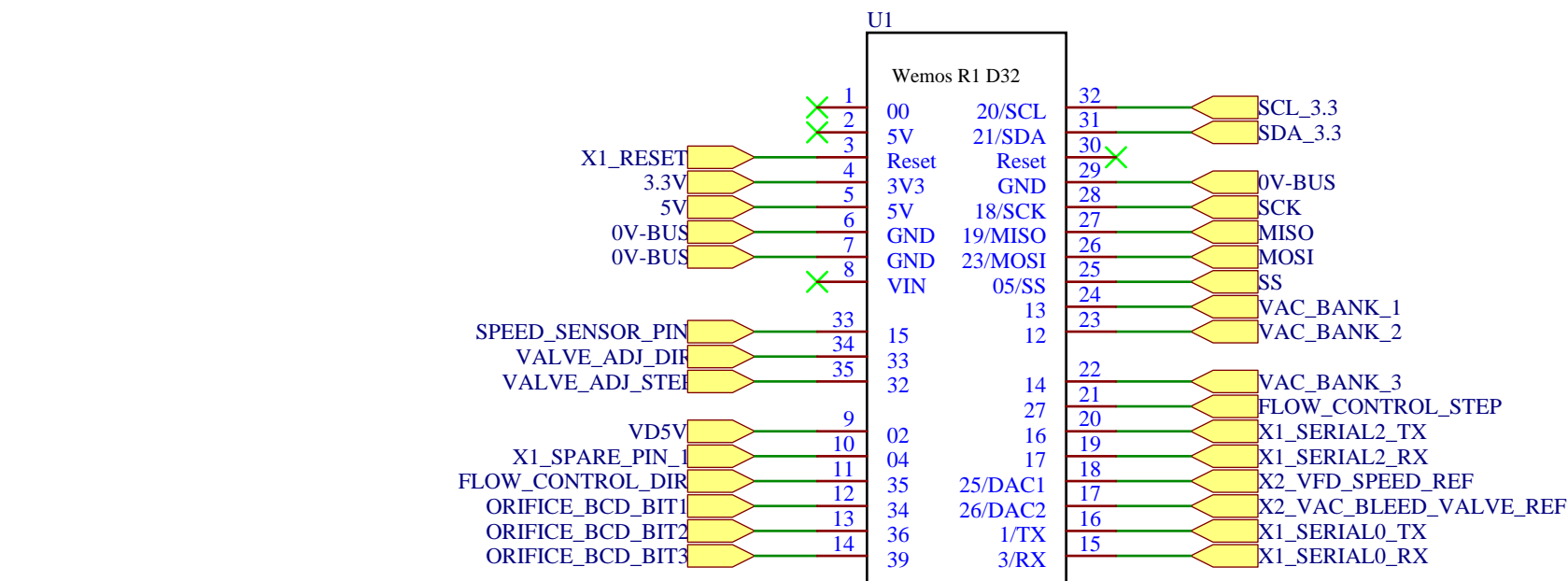


SD CARD

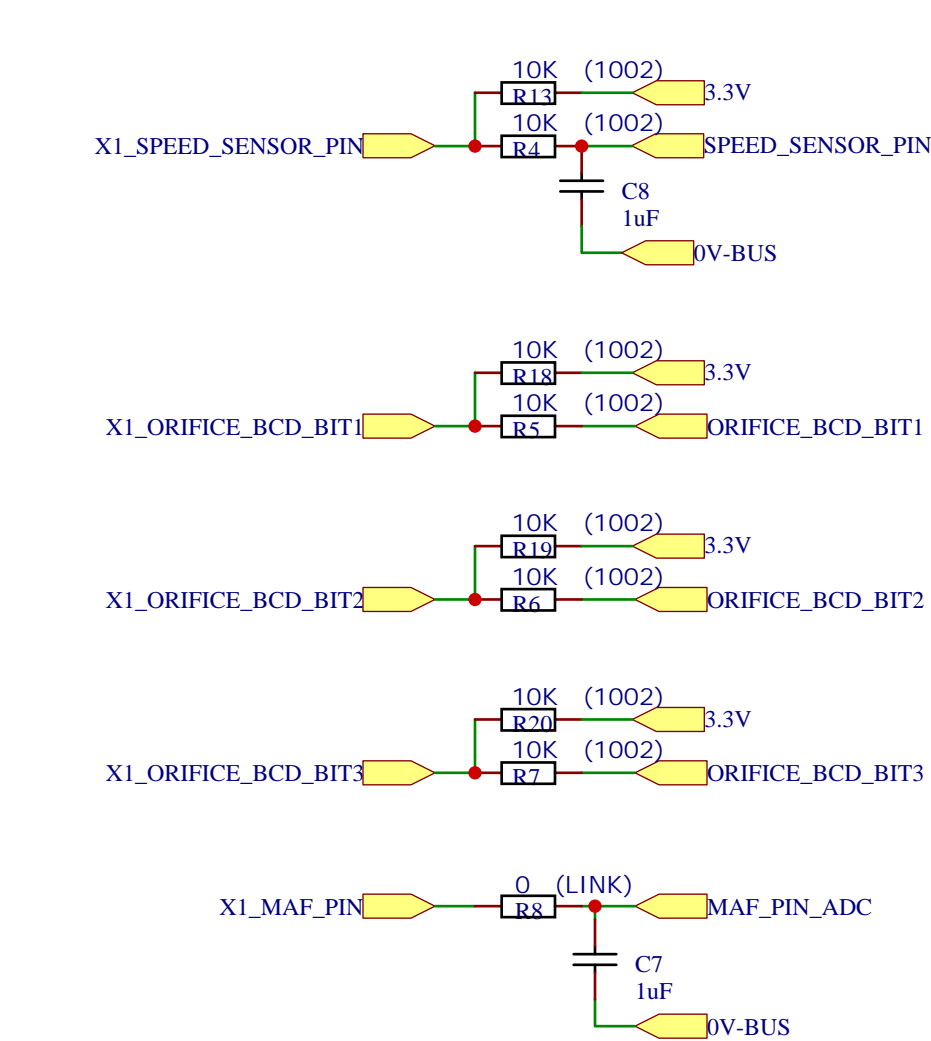


NOTE: There are two SD card locations depending on Pressure Sensors used.

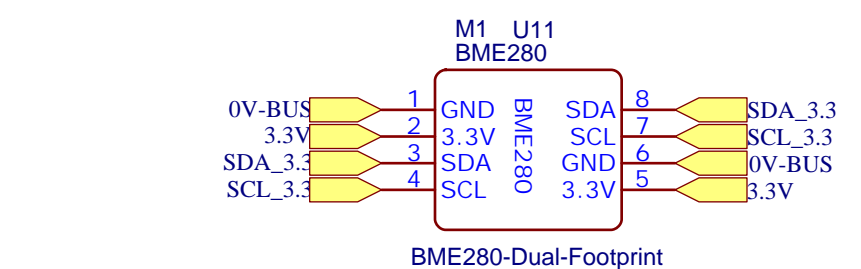
CPU - Wemos D1 R32



INPUT SIGNAL CONDITIONING

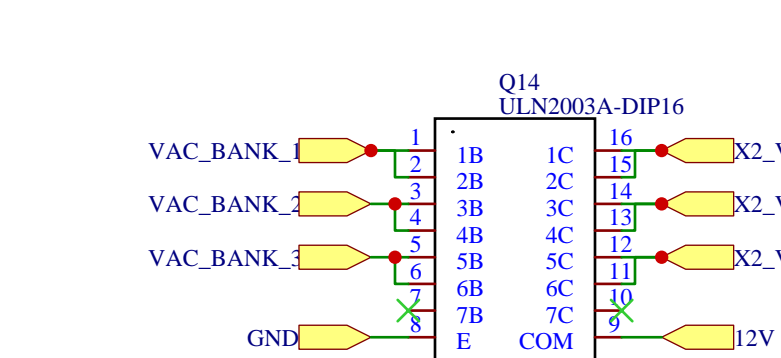


BME280

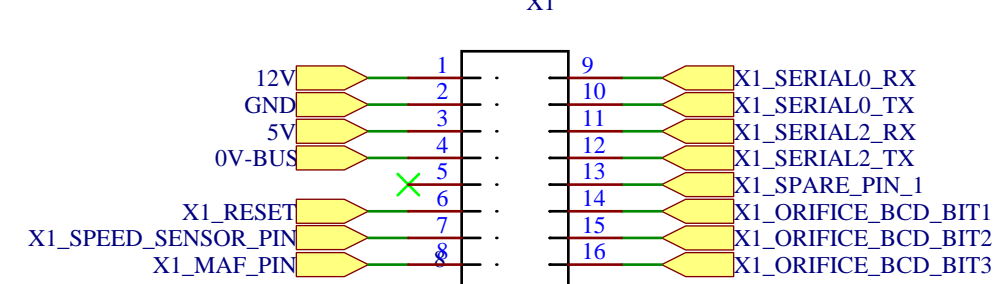


NOTE: 3.3v device

OP DARLINGTON ARRAY



FIELD INPUTS



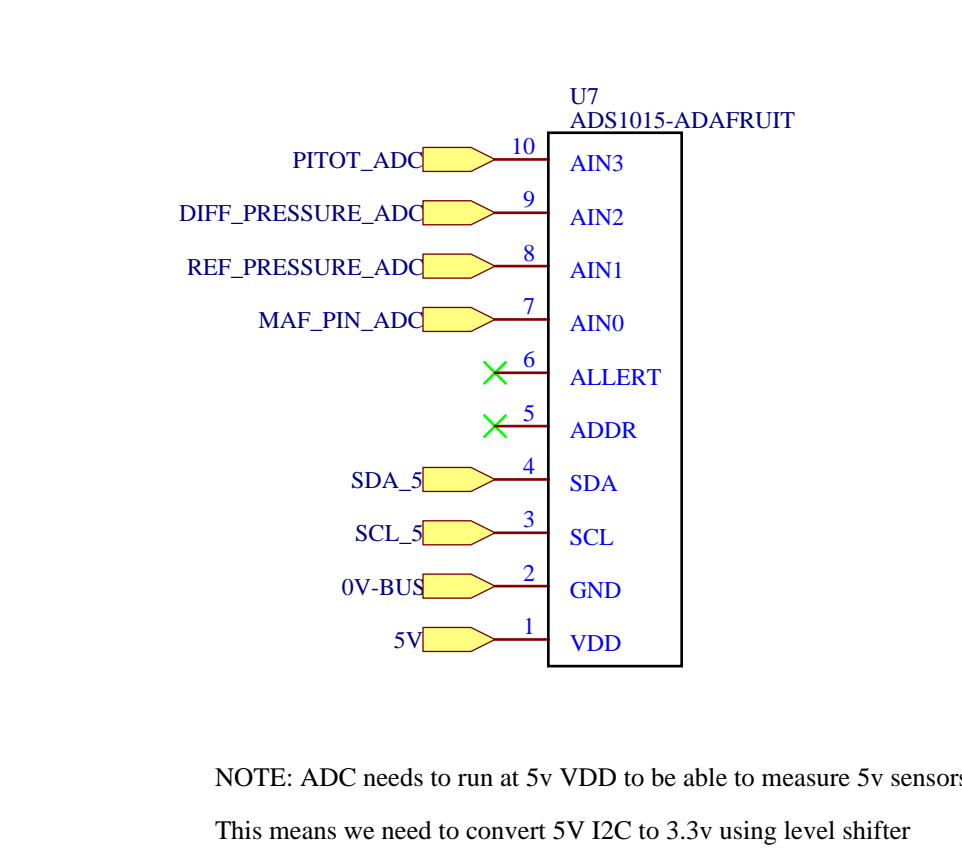
NOTE: MAF input also needs to handle frequency based MAFs...

ADS1115 / I2C can handle up to 100kHz

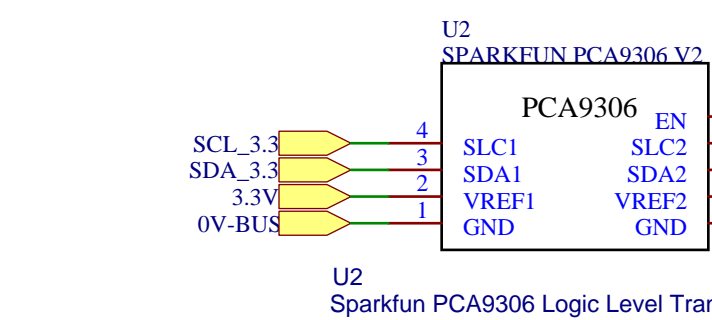
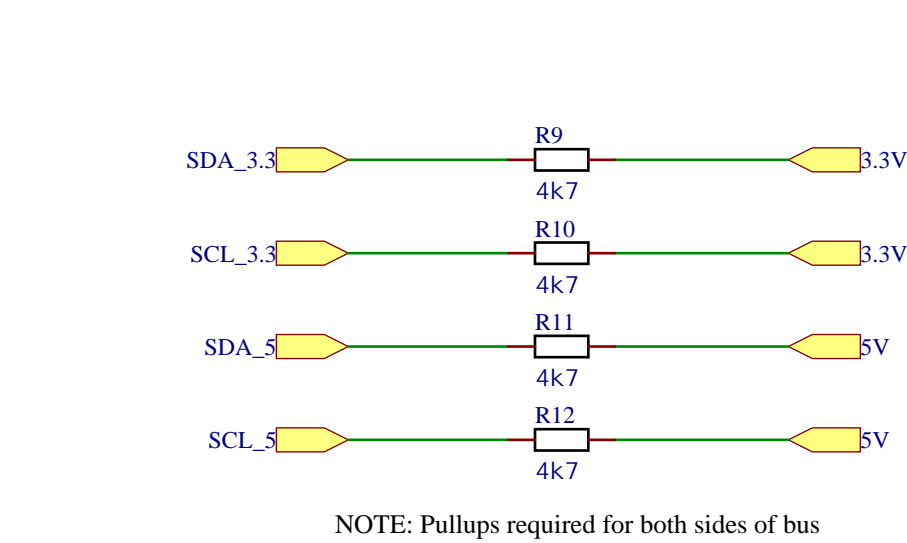
Typical MAF maxes out at 5kHz

Possibly utilise frequency to voltage converter such as LM231/LM331

ADS1115

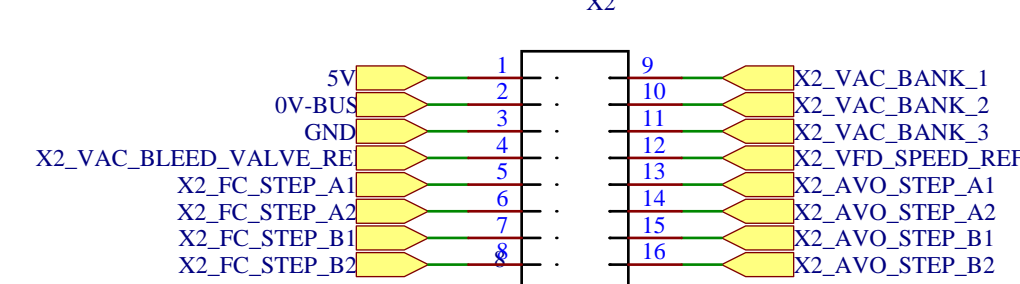


I2C Bus / Level Shifter



NOTE: Level shifter splits the 3.3v and 5v sides of the bus to allow the ADC to run at 5v

FIELD OUTPUTS



Schematic	DIY-Flow-Bench.V2.3			Update Date	2024-09-11
Page	DIY-FB-V2.3			Create Date	2020-07-30
Drawn	DEEEMM			Part Number	DIYFB-2.3
Reviewed	DM			DIY-FLOW-BENCH	
		VER	SIZE	PAGE	OF
		V2.3	A3	EasyEDA.com	