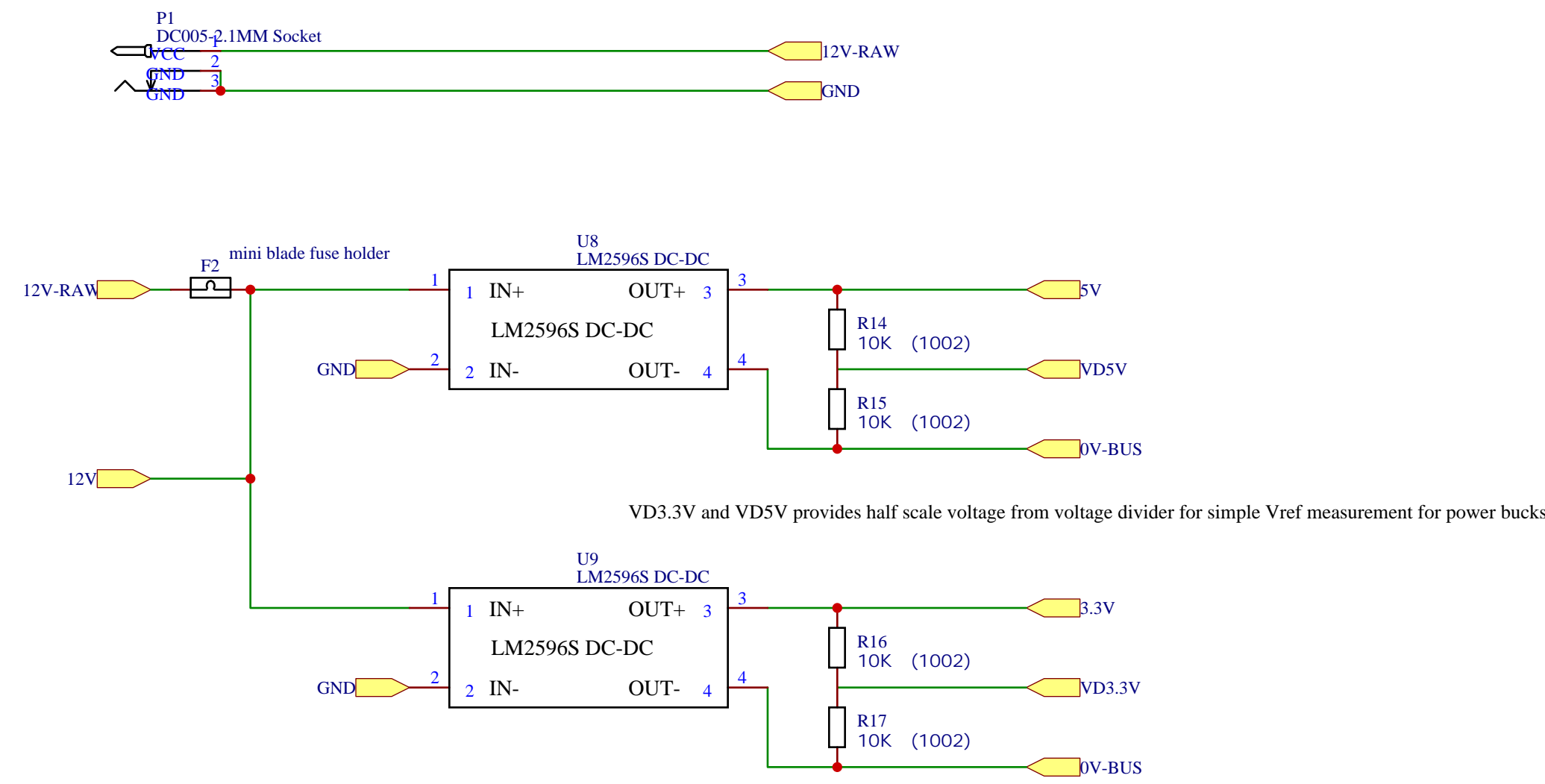
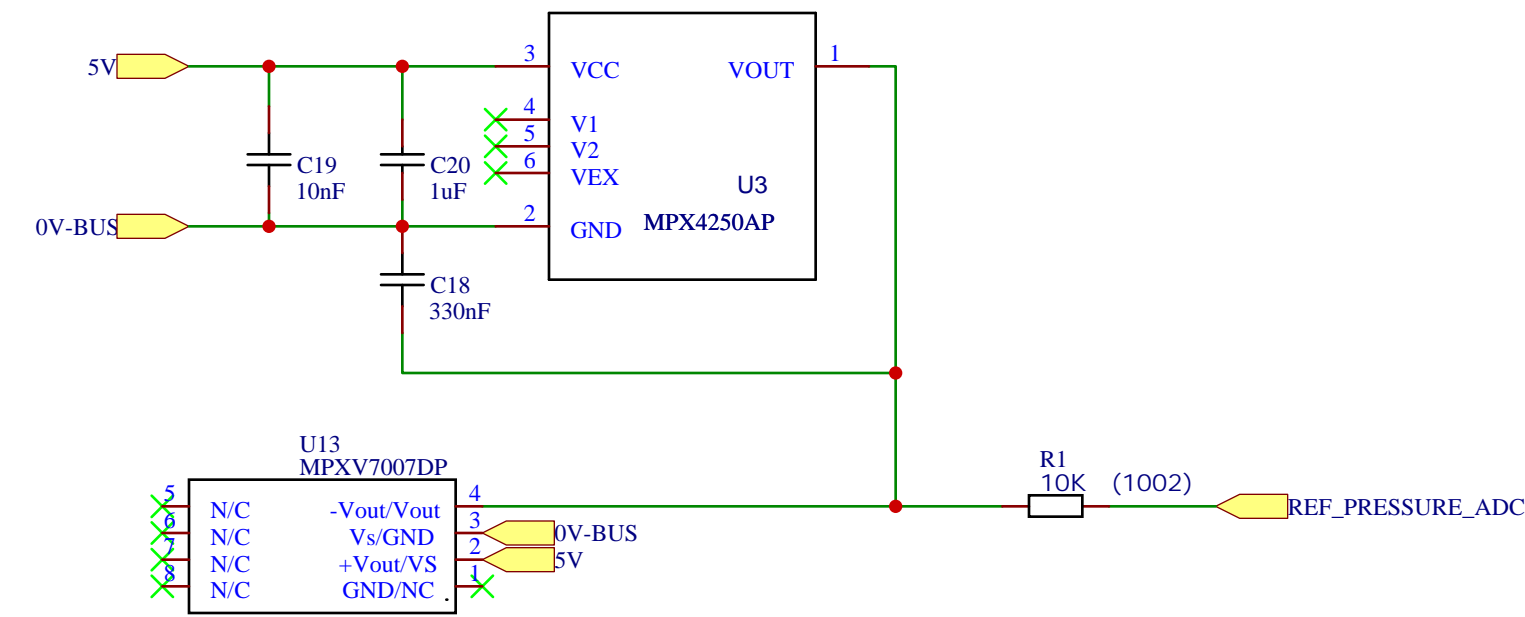


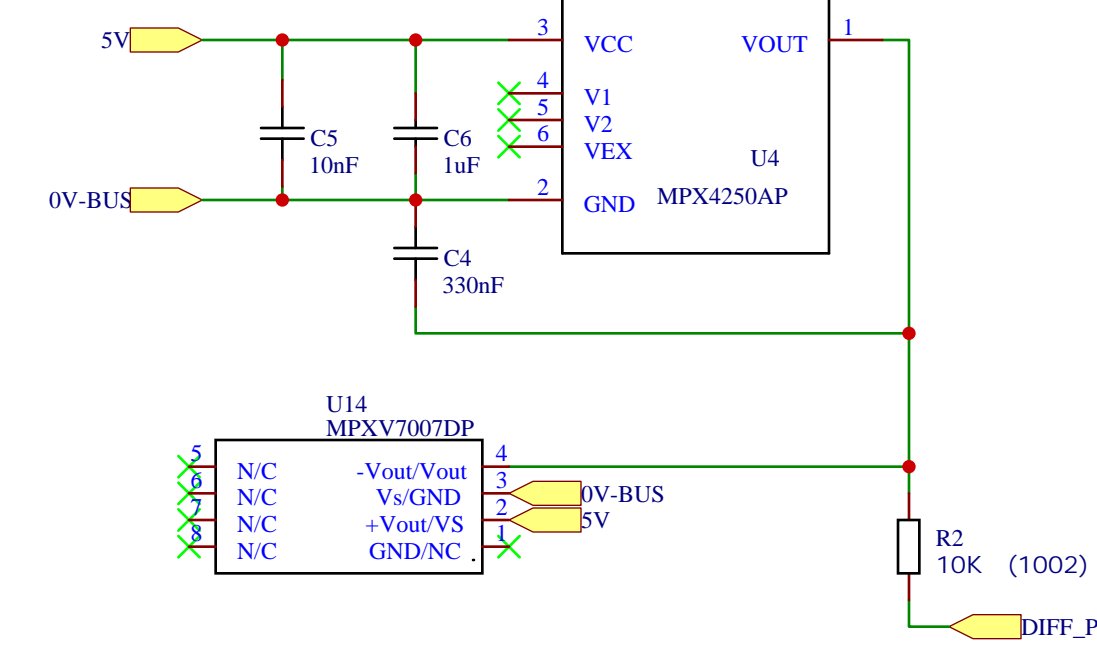
POWER MANAGEMENT



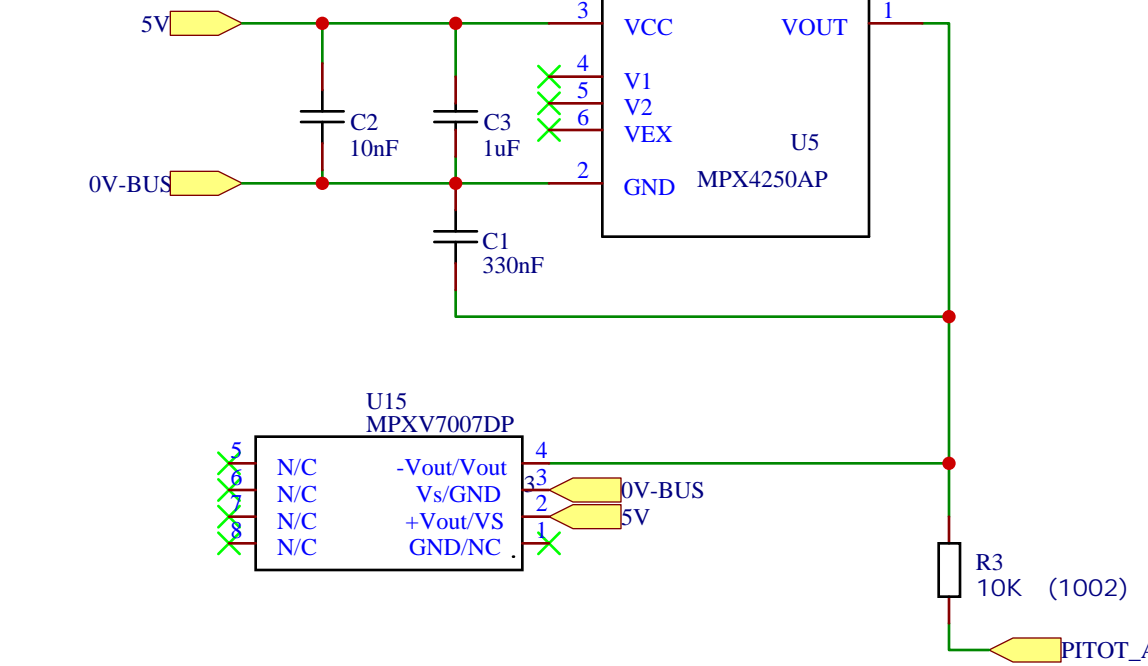
REFERENCE PRESSURE SENSOR



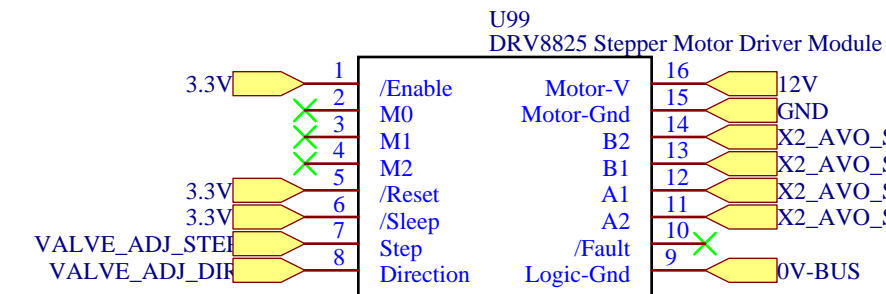
DIFFERENTIAL PRESSURE SENSOR



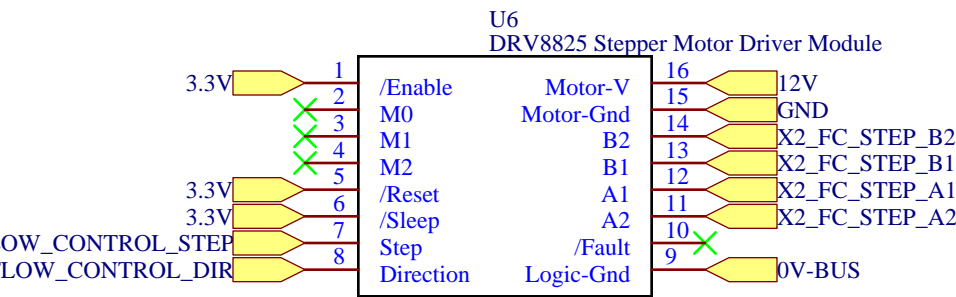
PITOT SENSOR



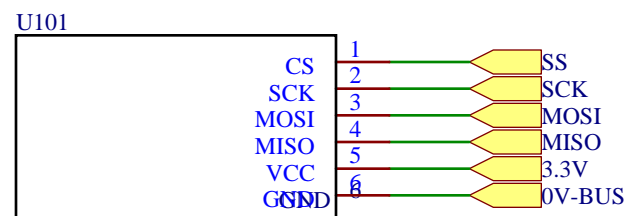
AUTO VALVE STEPPER MOTOR



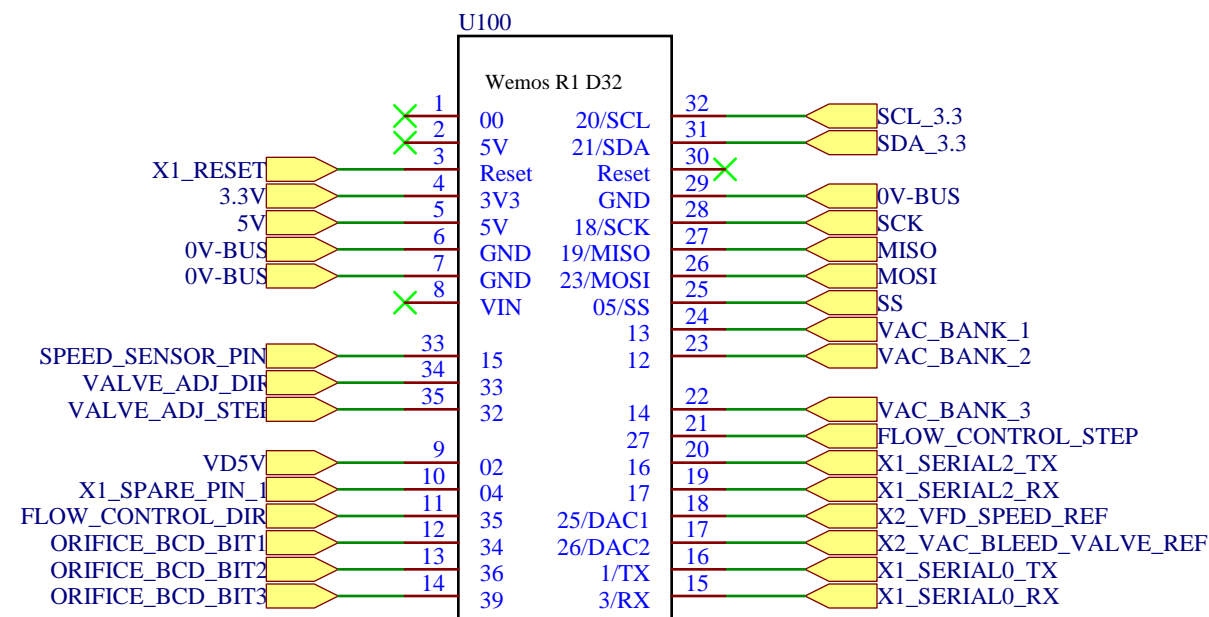
FLOW CONTROL STEPPER MOTOR



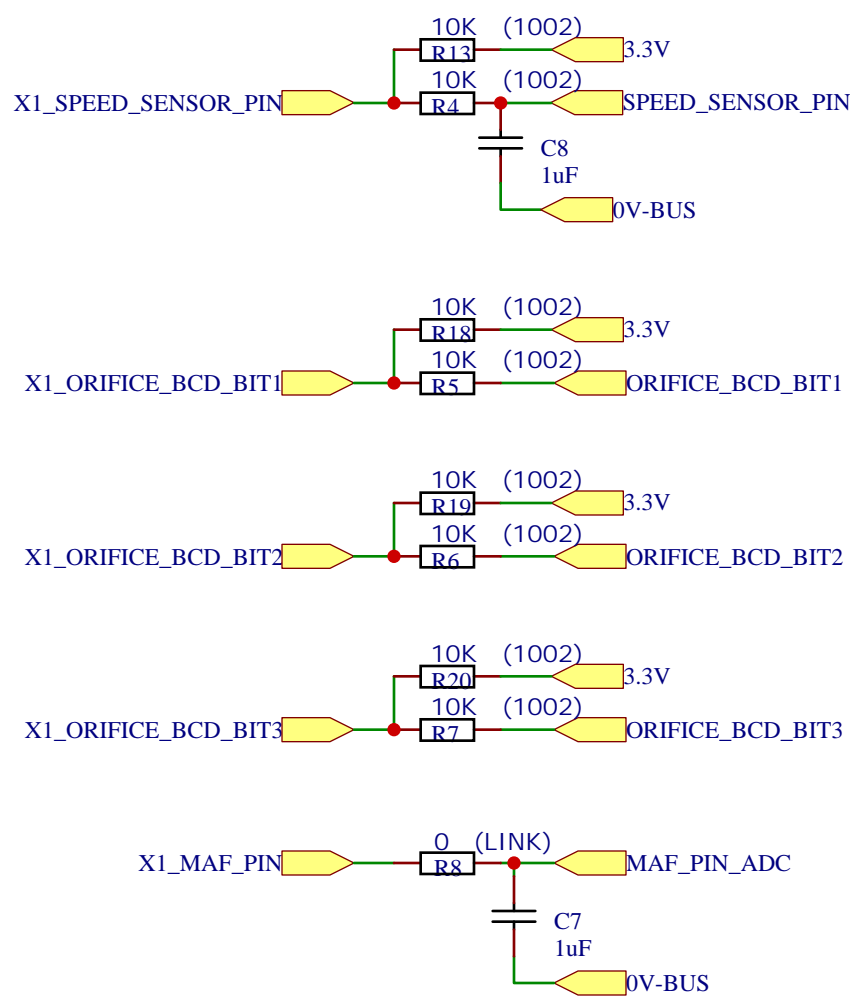
SD CARD



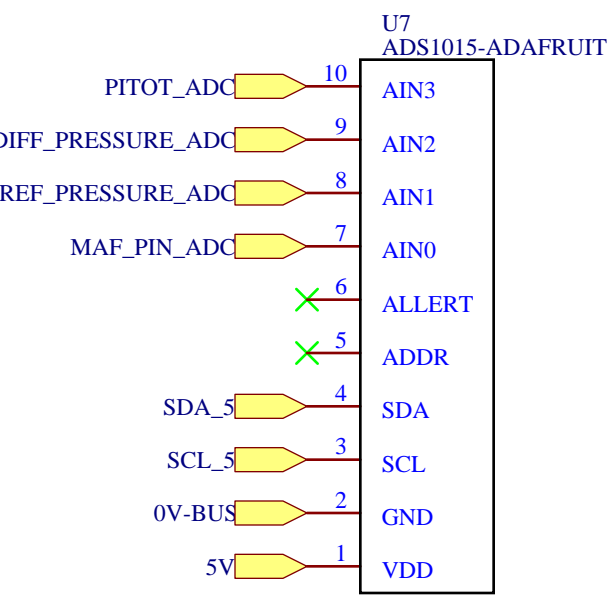
CPU - Wemos D1 R32



INPUT SIGNAL CONDITIONING

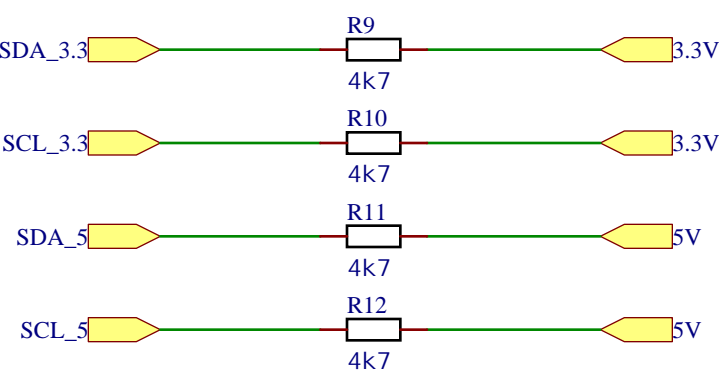


ADS1115

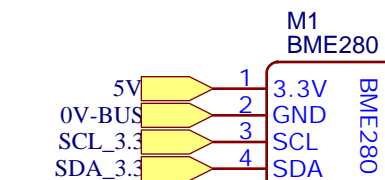


NOTE: ADC needs to run at 5v VDD to be able to measure 5v sensors
This means we need to convert 5V I2C to 3.3v using level shifter

I2C Bus / Level Shifter

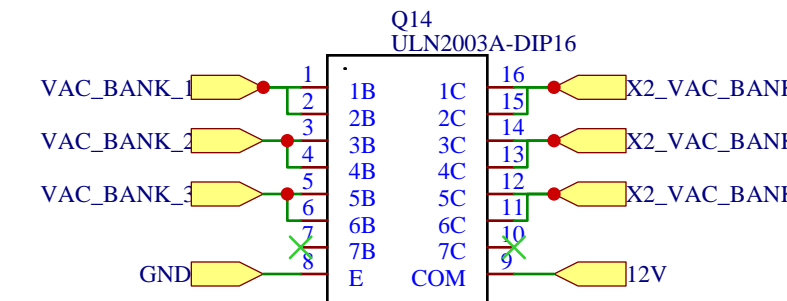


BME280

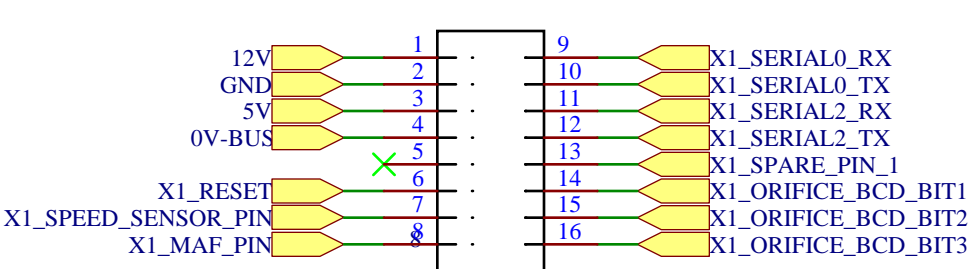


NOTE: 3.3v device

OP DARLINGTON ARRAY

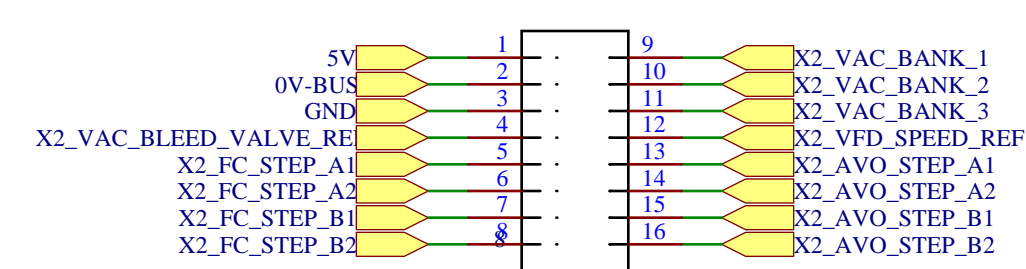


FIELD INPUTS



NOTE: MAF input also needs to handle frequency based MAFs...
ADS1115 / I2C can handle up to 100kHz
Typical MAF maxes out at 5kHz
Need to look at frequency to voltage converter such as LM231/LM331

FIELD OUTPUTS



Schematic	DIY-Flow-Bench.V2		Update Date	2023-02-21
Page	DIY-FB-V2.0		Create Date	2020-07-30
Drawn	EasyEDA Pro	DIY-FLOW-BENCH		
Reviewed	EasyEDA Pro			
		VER	SIZE	PAGE 1 OF 1
		V2.0	A3	EasyEDA.com