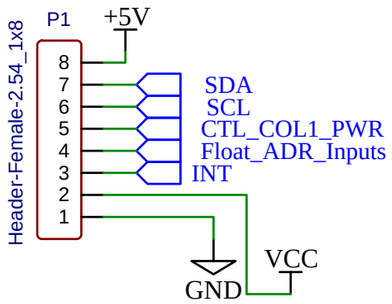
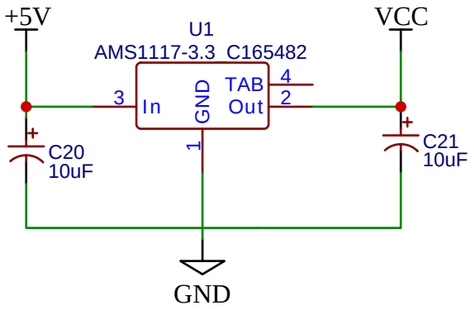
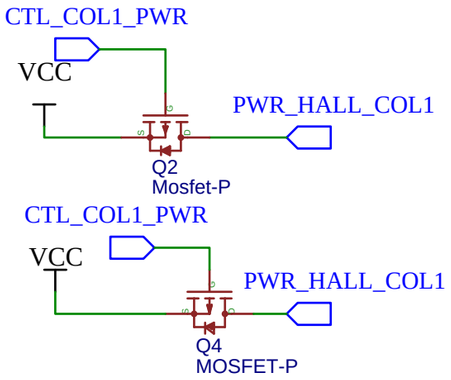
I/O Connector



3.3V Regulator (Optional)

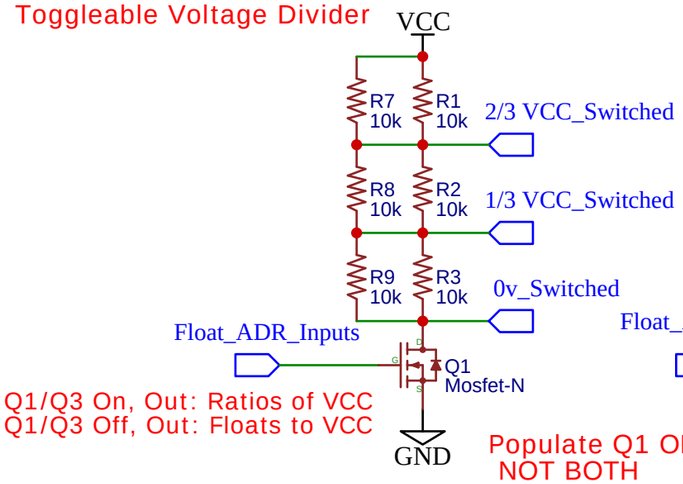


Sensor Power Control



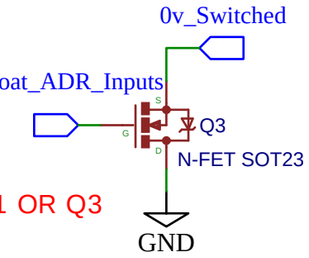
Populate Q2 OR Q4
NOT BOTH

Toggleable Voltage Divider



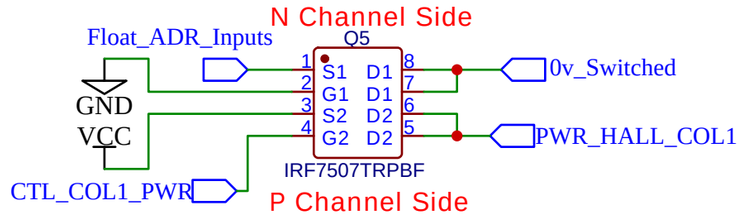
Q1/Q3 On, Out: Ratios of VCC
Q1/Q3 Off, Out: Floats to VCC

Use 1% Resistors
Populate Either:
SMD{R1,R2,R3}
or
TH{R7,R8,R9}



Populate Q1 OR Q3
NOT BOTH

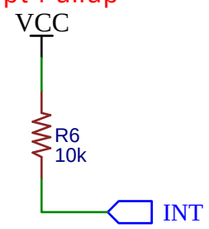
Unified Mosfet (Optional)



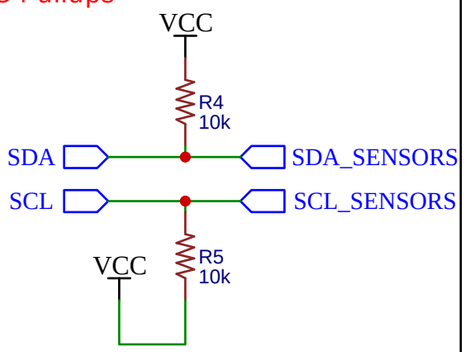
All FETS Min 2.5v Logic Level Vth
Prefer Low RDSon as each Hall Sensor requires 7 mA Peak
(IRF7507TRPBF available at digikey)

Build Notes:
Populate Q1 or Q3, not both! & Populate Q2 or Q4, not both!
OR ONLY POPULATE Q5
Populate {R1,R2,R3} or {R7,R8,R9}

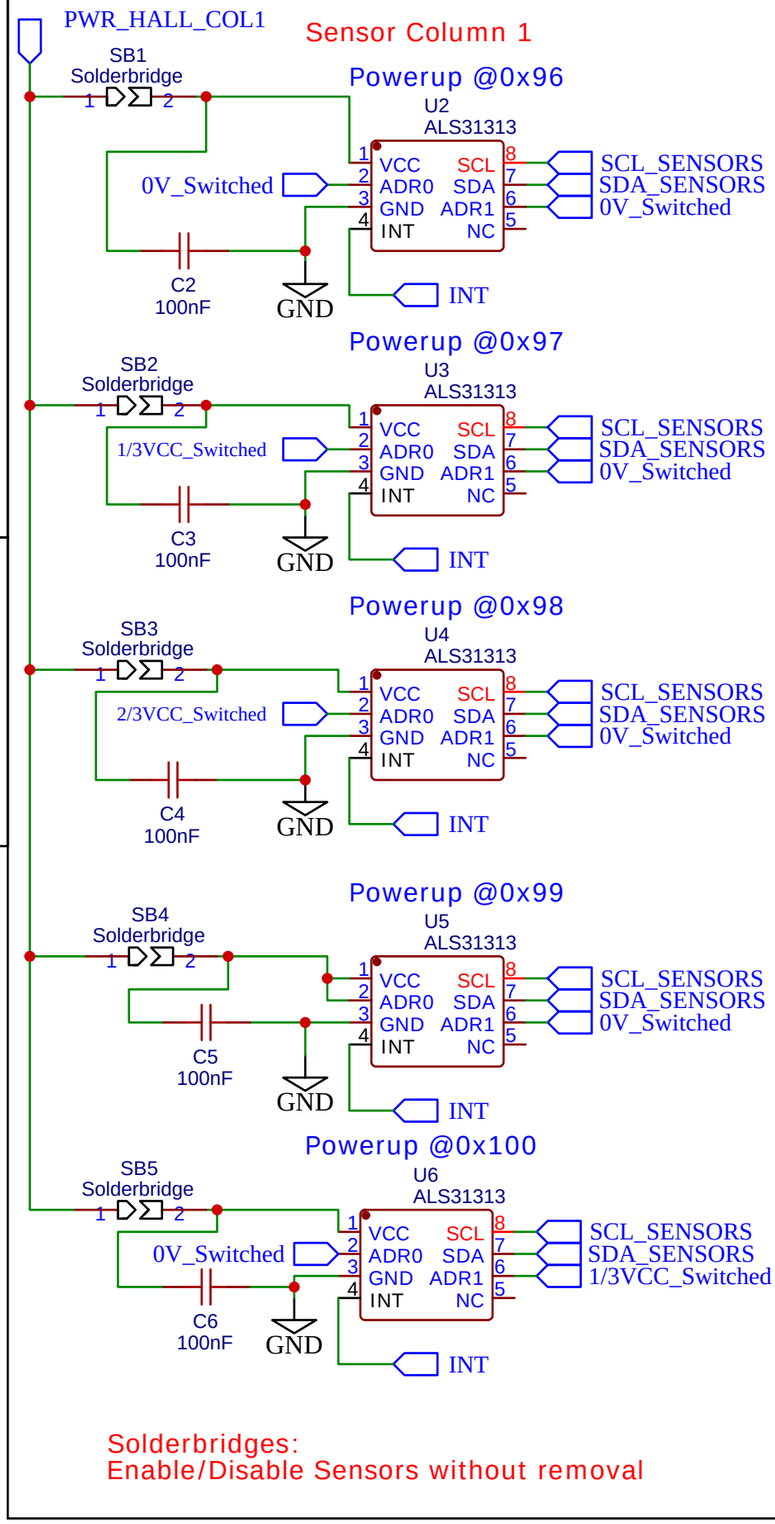
Interrupt Pullup



I2C Pullups



Sensor Column 1



Solderbridges:
Enable/Disable Sensors without removal

Address Set Procedure:
1) Disable #Float_ADR_Inputs
2) Power up desired column
3) Write eeprom address value
4) Power off Column
5) Rep. 2-4 for other columns
6) Enable #Float_ADR_Inputs
7) Power up all columns
8) Get Data

TITLE: G15 HALL Sensor POC Board		REV: 1.01
EasyEDA	Company: ECE4600 G15	Sheet: 1/1
	Date: 2021-10-09 Drawn By: David Stewart	