// TODO: Research how to make a solder gap for a pull-up or pull-down resistor to determine the smapling rate.

// TODO: Add a connector for getting SDATA and SD_CLK to my microcontroller. This could simply use a twisted-pair configuration (or not).

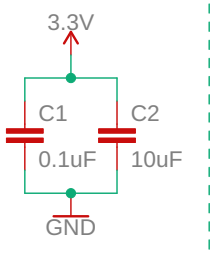
The circuit contained below is the circuit given on the HX711 development board Joe gave to me.

E+: Positive excitation (+2.75V regulated)
E- : Negative Excitation (GND)
A+: Channel A positive differential (load cell green)
A-: Channel A negative differential (load cell white)

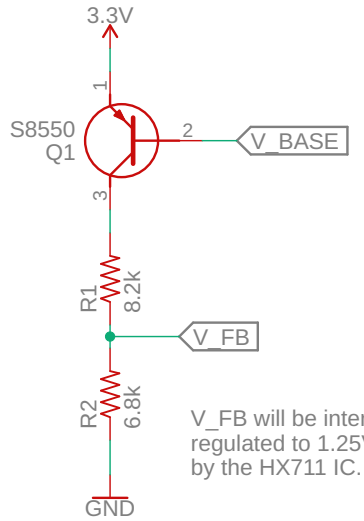
GPIO "Bit-Banged" Pins:
(1) SDCLK
(2) SDATA

NOTE: Put on silkscreen the way to close these solder jumpers (high = 80Hz sampling, low = 10 Hz sampling)

DC Supply Noise Rejection

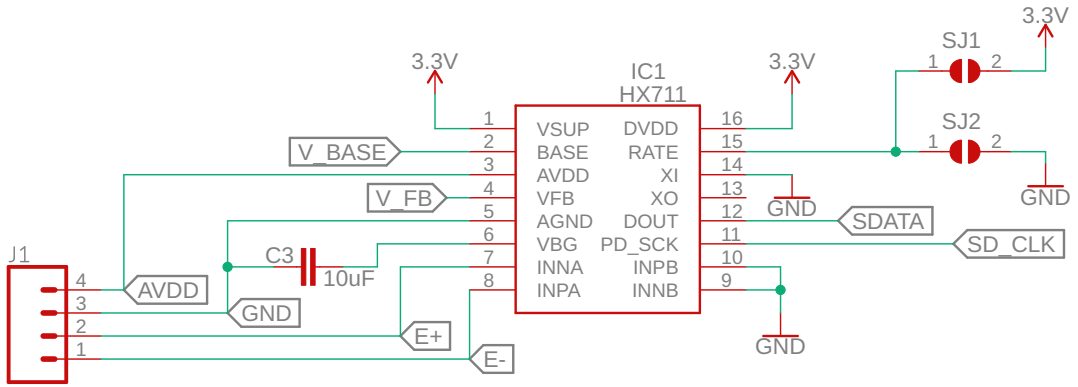


Analog Voltage Regulation



V_FB will be internally regulated to 1.25V by the HX711 IC.

HX711 Load Cell IC Biasing



Design Notes:

(1) X0 = NC, XI = 0 for internal crystal oscillator
(2) AVDD generated by HX711 as shown on pg. 4 of datasheet:
V_avdd = V_bg * (1 + R1/R2) // incorrect in datasheet
MUST be at least 0.1V less than VSUP
(3) SDATA and SD_CLK go directly to microntroller input header
(4) RATE = 0 means a 10Hz sampling frequency. 1 for 80 Hz.
Both pull-up and pull down resistor pads will exist.
(5) DVDD = V_MCU (3.3V)
(6) AGND = GND