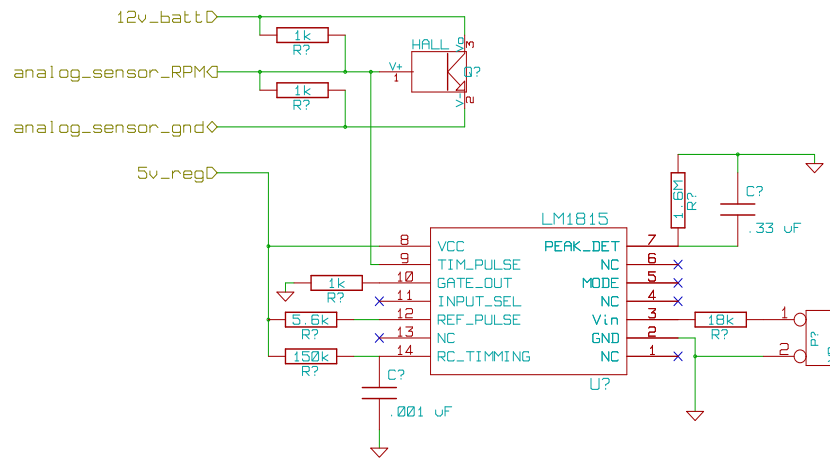
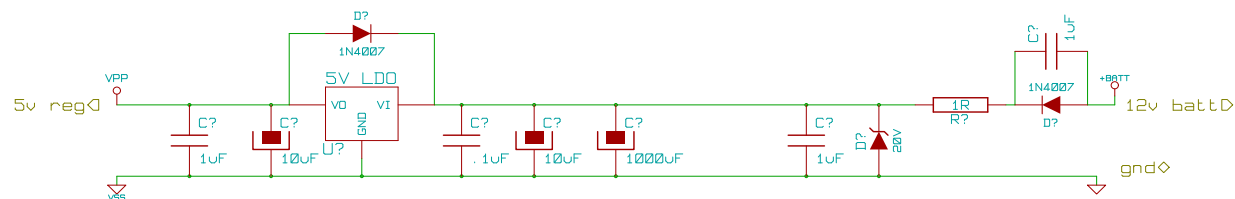


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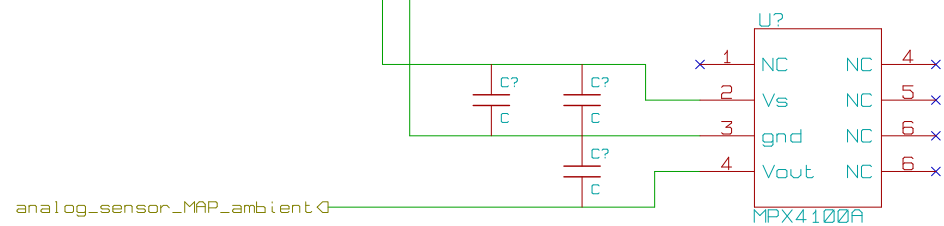
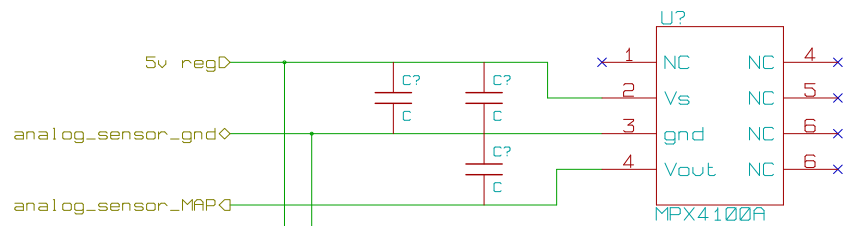


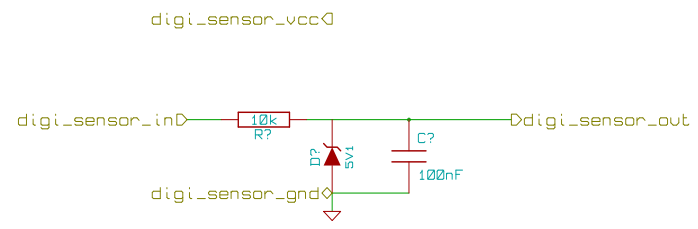


Starting from right and moving to the left we have in order :

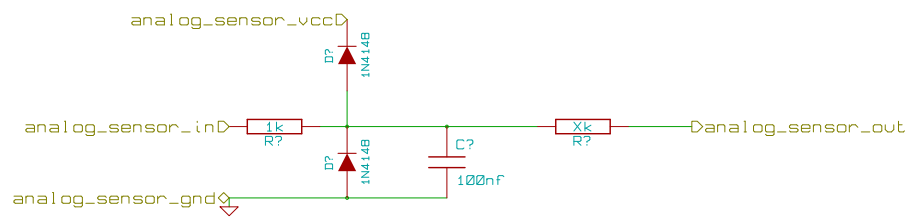
- Power feed and ground from battery and/or block
- Reverse polarity hook up protection diode
- Snubbing capacitor for that diode (diodes are electrically noisy when they switch on and off)
- Current limiting resistor (value yet to be calculated)
- Zener over voltage clamping diode (voltage yet to be determined, but must be below the max voltage of the components following it)
- Snubbing capacitor for that diode (diodes are electrically noisy when they switch on and off)
- Charge storage electrolytic polarised 25V 1000µF capacitor (value may change, but 220 - 2200 is around what we want)
- High frequency tantalum 25V 10µF capacitor (35V units are expensive, as are 22µF)
- Ultra high frequency ceramic 0.1µF capacitor (larger units with similar frequency response would also be acceptable)
- 5V LDO (low drop out) voltage regulator
- Reverse voltage protection diode for the regulator in case of external capacitors discharging more quickly and/or to a lower level than internal ones (snubbing not required as this will not happen when things are actually running)
- High frequency tantalum 25V 10µF capacitor (35V units are expensive, as are 22µF)
- Ultra high frequency ceramic 0.1µF capacitor (larger units with similar frequency response would also be acceptable)
- Power feed and ground for CPU core

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YOU CAN POPULATE DIFFERENT FEATRES WITH THIS CIRCUIT
CURRENT SENSING ALLOWS YOU TO MEASURE WHEN THE INJECTOR IS ON VS OFF
THE SNUBBER DIODE TO DECREASE INDUCTIVE CURRENT SPIKES
IF YOU DON'T POPULATE THE SNUBBER FEATURE, THE MOSFET WILL DISAPATE ENERGY FROM THE INJECTOR

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low_power_inductive_drive◇

low_power_inductive_gnd◇

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VCC ◊ 50
 GND ◊ 49
 PE7 ◊ 48
 PK7 ◊ 47
 PK5 ◊ 46
 PK4 ◊ 45
 PK3 ◊ 44
 PK2 ◊ 43
 PK1 ◊ 42
 PK0 ◊ 41
 PJ0 ◊ 40
 PJ7 ◊ 39
 PJ6 ◊ 38
 PM7 ◊ 37
 PM6 ◊ 36
 PM5 ◊ 35
 PM4 ◊ 34
 PM3 ◊ 33
 PM2 ◊ 32
 PM1 ◊ 31
 PM0 ◊ 30
 AN12 ◊ 29
 AN13 ◊ 28
 AN14 ◊ 27
 AN15 ◊ 26

P7
 1 ◊ PA7
 2 ◊ PA6
 3 ◊ PA5
 4 ◊ PA4
 5 ◊ PA3
 6 ◊ PA2
 7 ◊ PA1
 8 ◊ PA0
 9 ◊ PB7
 10 ◊ PB6
 11 ◊ PB5
 12 ◊ PB4
 13 ◊ PB3
 14 ◊ PB2
 15 ◊ PB1
 16 ◊ PB0
 17 ◊ R/W
 18 ◊ ECLK
 19 ◊ LSTRB
 20 ◊ IRQ
 21 ◊ PJ1
 22 ◊ AN08
 23 ◊ AN09
 24 ◊ AN10
 25 ◊ AN11

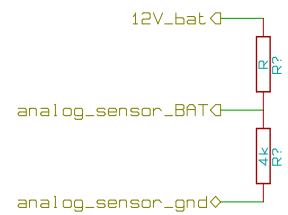
CONN_50_PIN_IO

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CONN_50_PIN_IO

P7



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