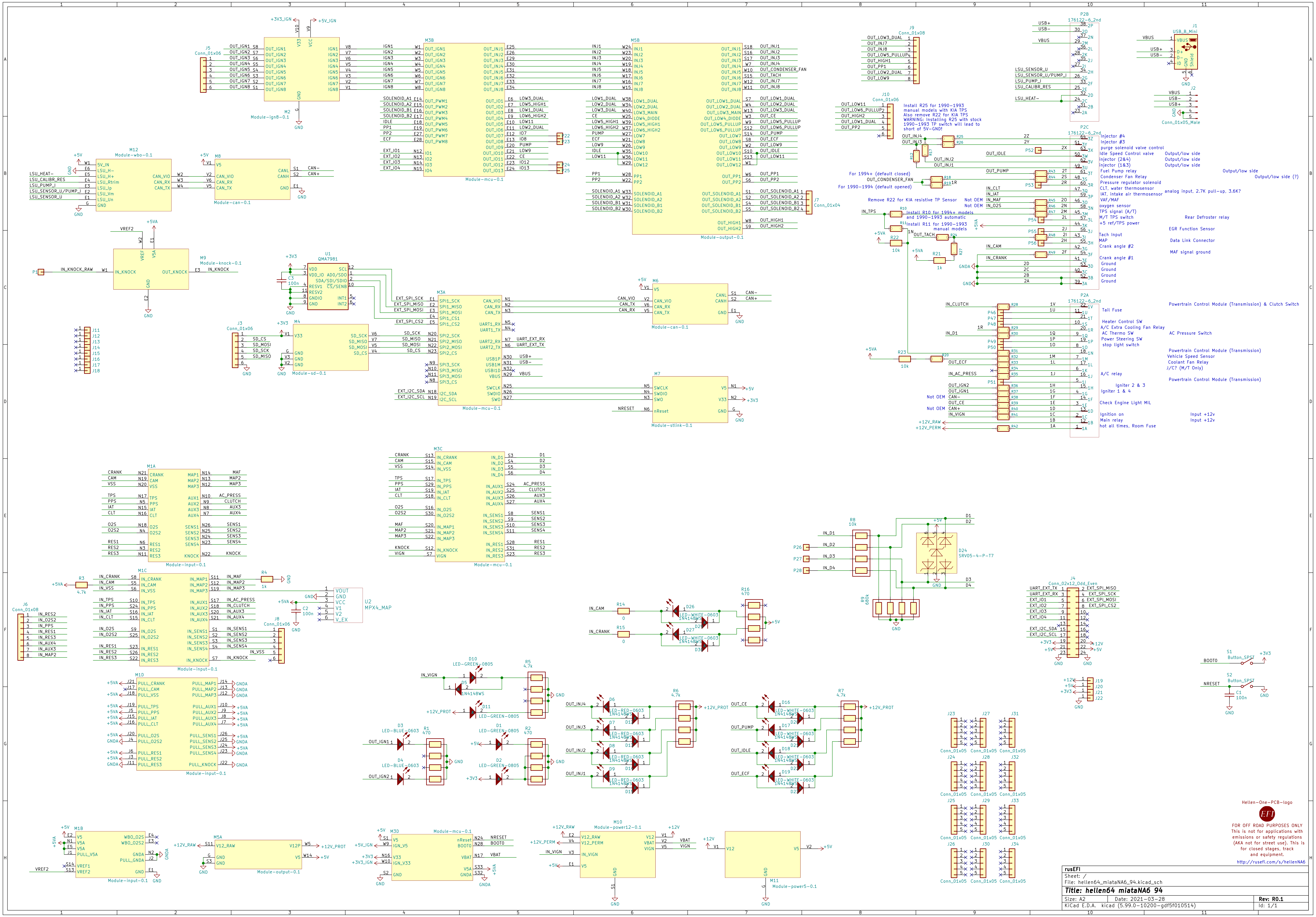
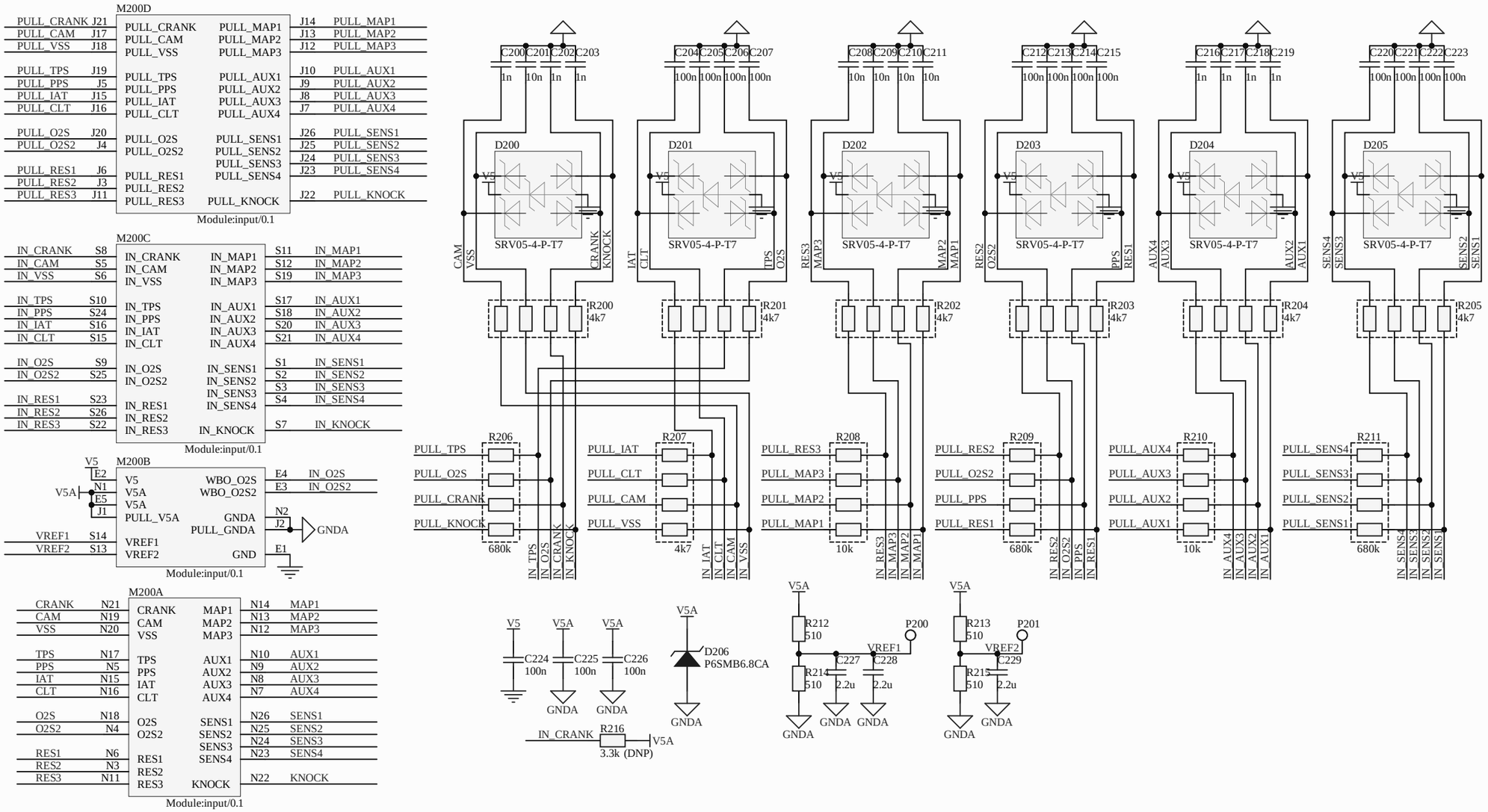
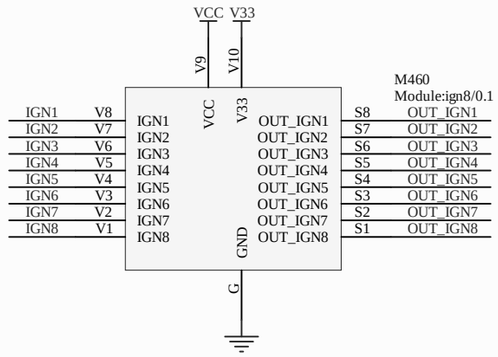
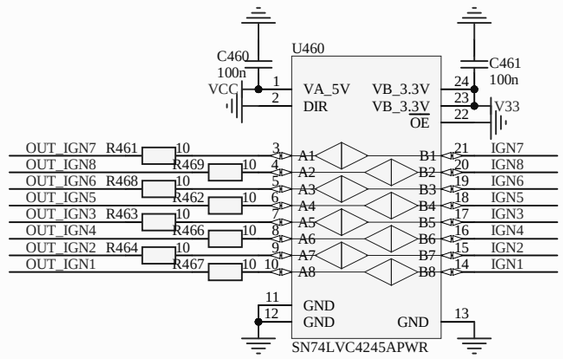


Module-ign8-0.1
Module-mcu-0.1
Module-output-0.1
Module-wbo-0.1
Module-can-0.1
Module-knock-0.1
QMA7981
Module-sd-0.1
Module-stlink-0.1
Module-input-0.1
MPX4_MAP
Module-power12-0.1
Module-power5-0.1
SRV05-4-P-T7
USB_B_Mini
176122-6_2nd
Install R25 for 1990-1993 manual models with KIA TPS
Also remove R22 for KIA TPS
WARNING: Installing R25 with stock 1990-1993 TP switch will lead to short of 5V-GND!
For 1994+ (default closed)
For 1990-1994 (default opened)
Remove R22 for KIA resistive TP Sensor
Install R10 for 1994+ models and 1990-1993 automatic
Install R11 for 1990-1993 manual models
Not OEM
Injector #4
Injector #3
purge solenoid valve control
Idle Speed Control valve
injector (2&4)
injector (1&3)
Fuel Pump relay
Condenser Fan Relay
Pressure regulator solenoid
CLT, water thermosensor
IAT, intake air thermosensor
VAF/MAF
oxygen sensor
TPS signal (A/T)
M/T TPS switch
+5 ref/TPS power
Tach Input
MAP
Crank angle #2
Crank angle #1
Ground
Output/low side
Output/low side (?)
analog input, 2.7K pull-up, 3.6K?
Rear Defroster relay
EGR Function Sensor
Data Link Connector
MAF signal ground
Tail Fuse
Heater Control SW
A/C Extra Cooling Fan Relay
AC Thermo SW
Power Steering SW
stop light switch
Powertrain Control Module (Transmission) & Clutch Switch
AC Pressure Switch
Powertrain Control Module (Transmission)
Vehicle Speed Sensor
Coolant Fan Relay
J/C? (M/T Only)
A/C relay
Igniter 2 & 3
Igniter 1 & 4
Check Engine Light MIL
Ignition on
Main relay
hot all times, Room Fuse
Input +12v
Hellen-One-PCB-logo
FOR OFF ROAD PURPOSES ONLY
This is not for applications with emissions or safety regulations (AKA not for street use). This is for closed stages, track and equipment.
http://rusefi.com/s/hellenNA6
rusEFI
Sheet: /
File: hellen64_miataNA6_94.kicad_sch
Title: hellen64 miataNA6 94
Size: A2
Date: 2021-03-28
Rev: R0.1
KiCad E.D.A. kicad (5.99.0-10200-gdf5f010514)
Id: 1/1

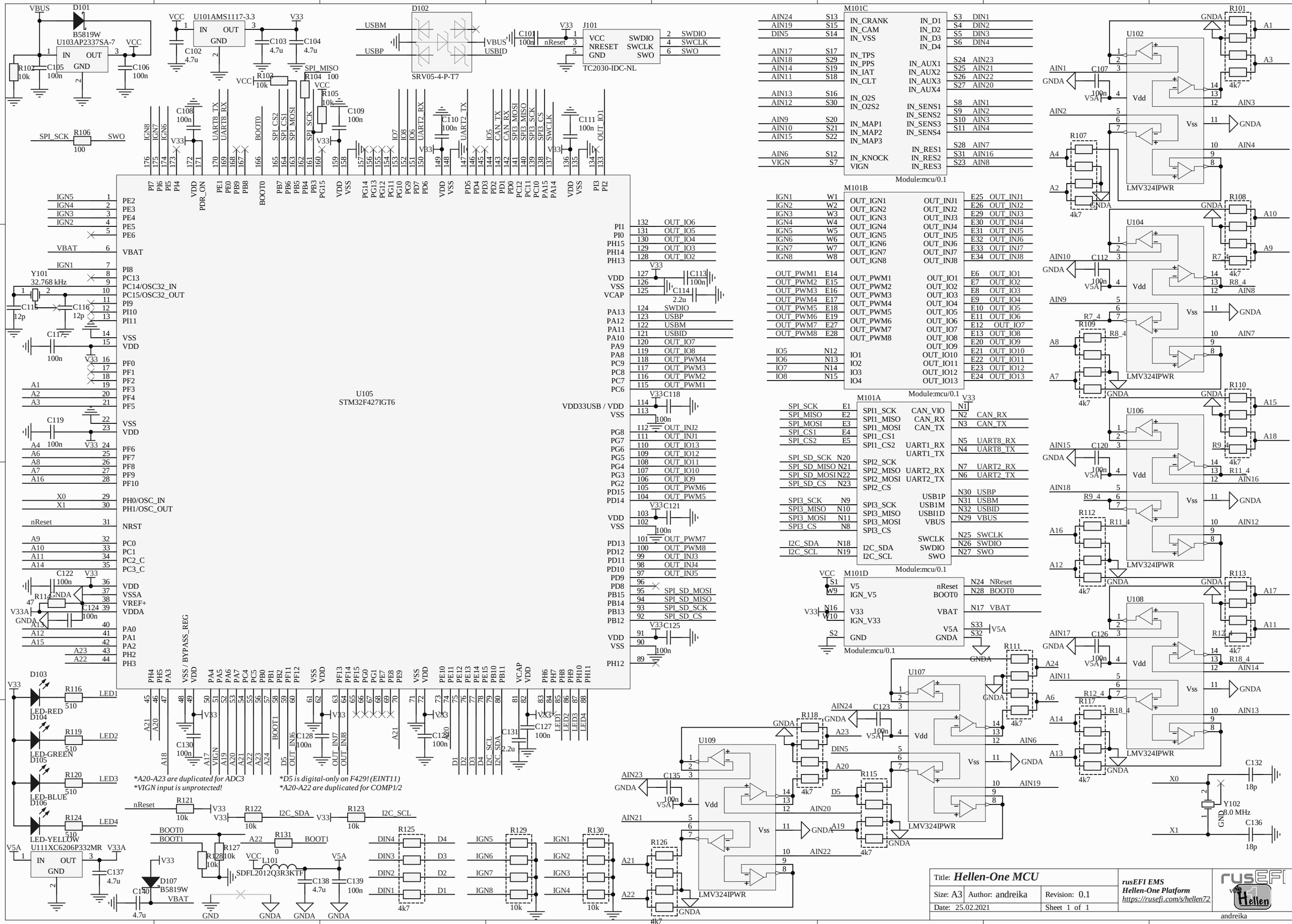


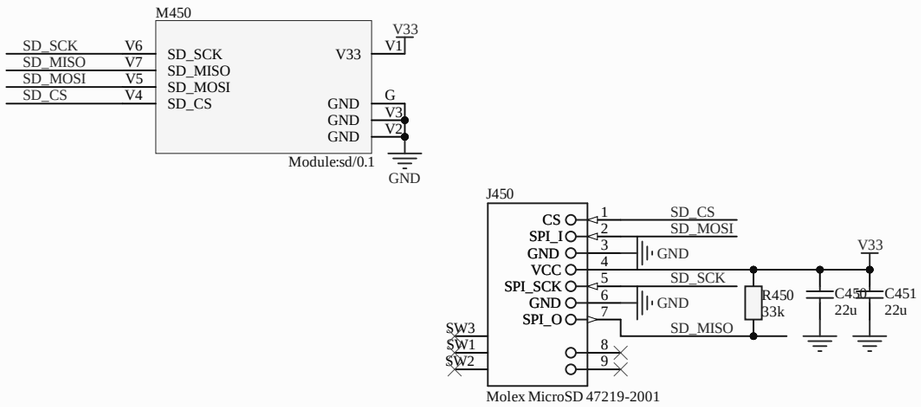
Title: ***Hellen-One: Input***			***rusEFI EMS***
Size: A3	Author: andreika	Revision: 0.1	***Hellen-One Platform***
Date: 23.02.2021		Sheet 1 of 1	*https://rusefi.com/s/hellen72*



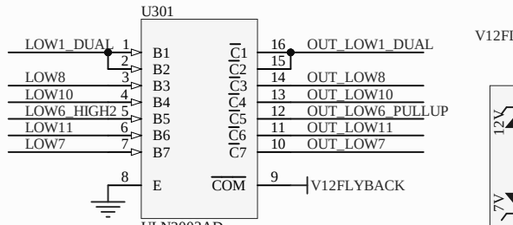


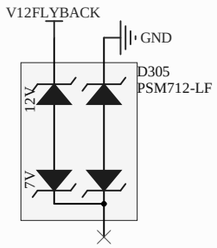
Title: ***Hellen-One IGN8***			***rusEFI EMS*** ***Hellen-One Platform*** *https://rusefi.com/s/hellen72*
Size: A3	Author: andreika	Revision: 0.1	
Date: 28.01.2021		Sheet 1 of 1	

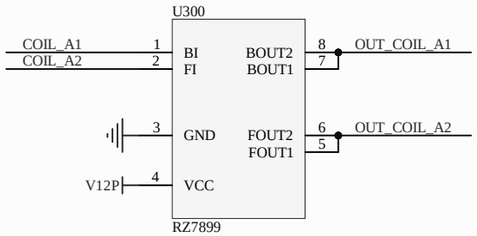

U105
STM32F427IGT6
M101C
M101B
M101A
M101D
Module:mcu/0.1
LMV324IPWR
U101AMS1117-3.3
AP2337SA-7
B5819W
SRV05-4-P-T7
TC2030-IDC-NL
U111XC6206P332MR
SDFL2012Q3R3KTF
D107 B5819W
LED-RED D104
LED-GREEN D105
LED-BLUE D106
LED-YELLOW D103
Y101 32.768 kHz
Y102 8.0 MHz
*A20-A23 are duplicated for ADC3
*VIGN input is unprotected!
*D5 is digital-only on F429! (EINT11)
*A20-A22 are duplicated for COMP1/2
Title: Hellen-One MCU
Size: A3
Author: andreika
Revision: 0.1
Date: 25.02.2021
Sheet 1 of 1
rusEFI EMS
Hellen-One Platform
https://rusefi.com/s/hellen72
andreika

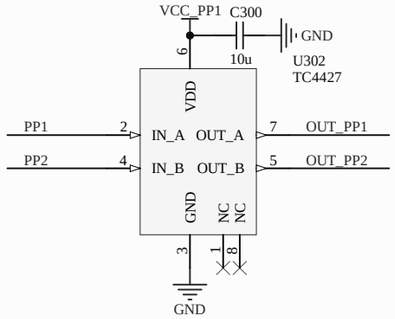


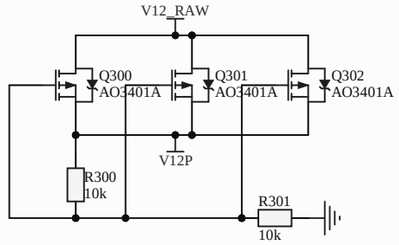
Title: ***Hellen-One SD-Card***			***rusEFI EMS*** ***Hellen-One Platform*** *https://rusefi.com/s/hellen72*
Size: A3	Author: andreika	Revision: 0.1	
Date: 02.03.2021		Sheet 1 of 1	

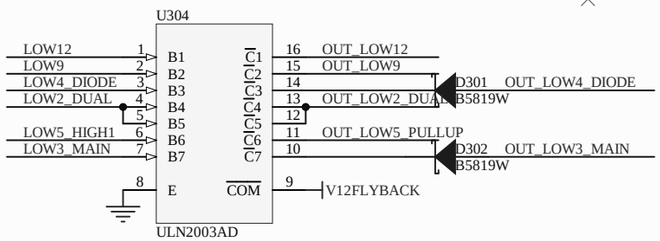


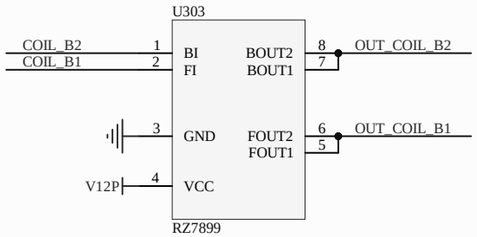


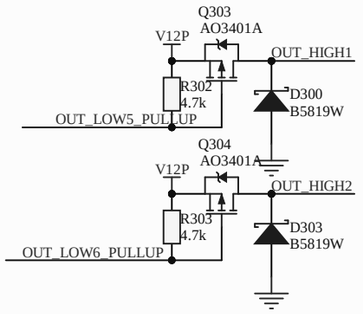


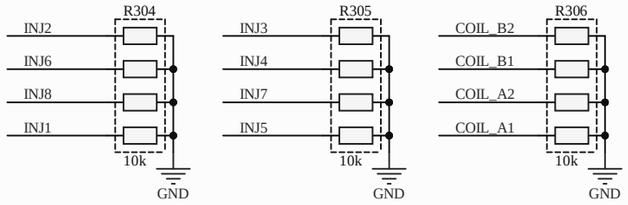


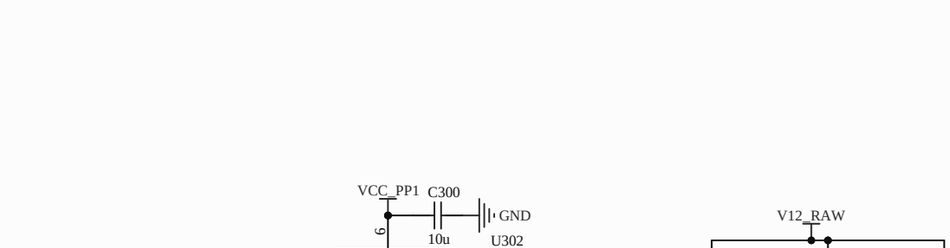


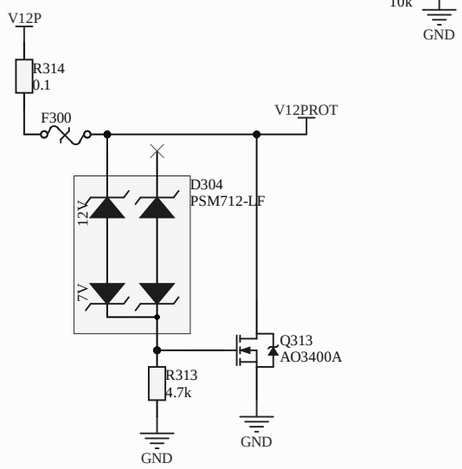


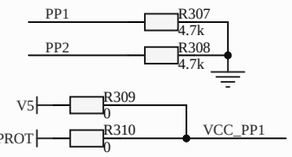




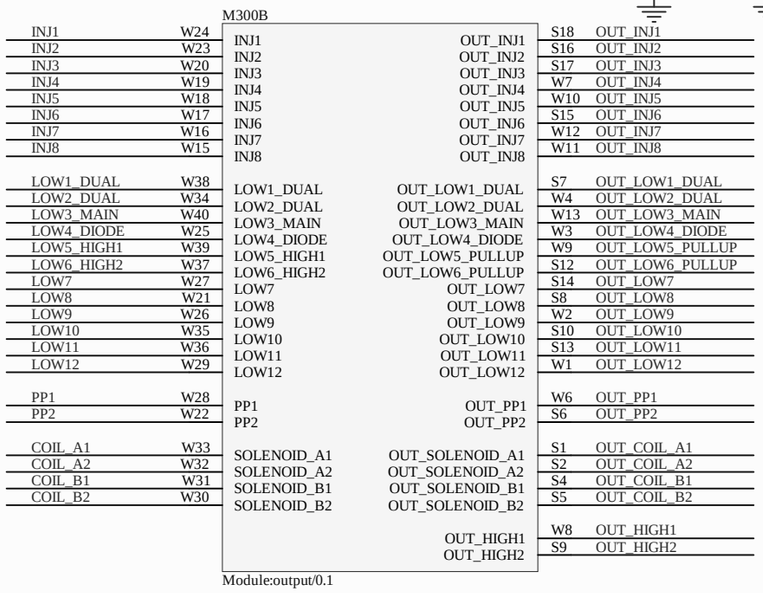


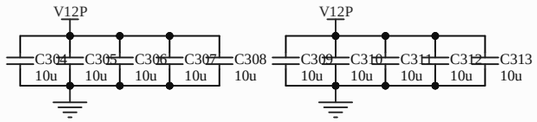


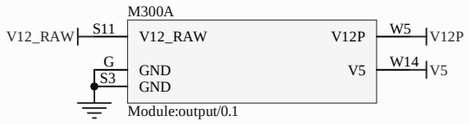




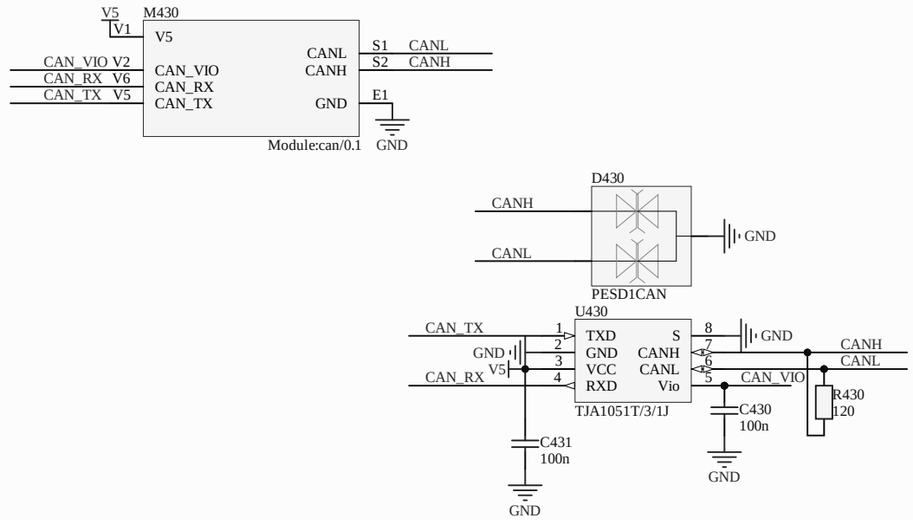
** These can be removed in the board compilation file*



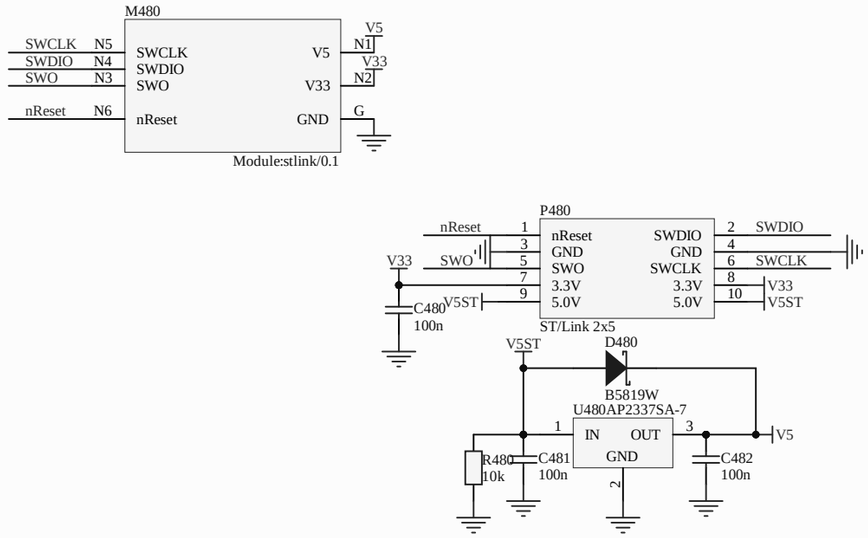




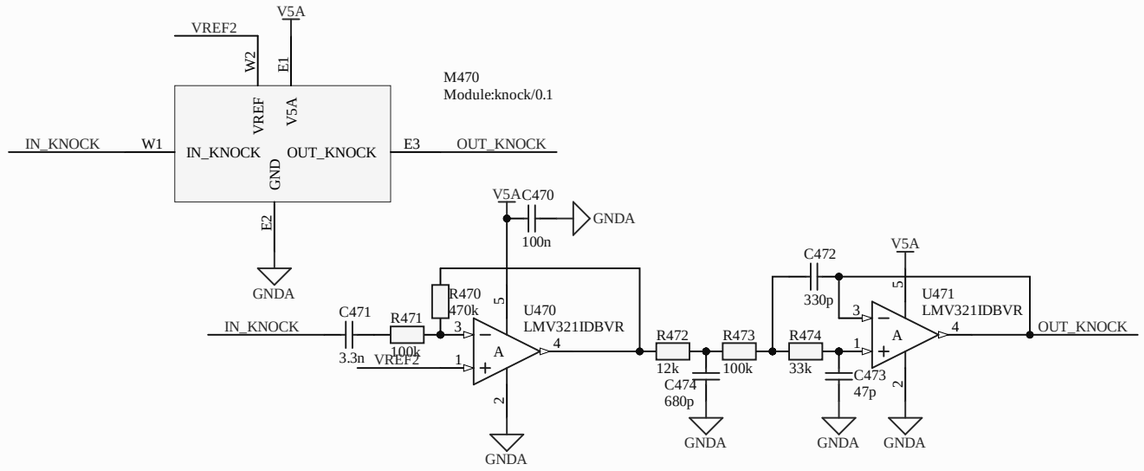
Title: ***Hellen-One Output***		***rusEFI EMS*** ***Hellen-One Platform*** *https://rusefi.com/s/hellen72*	rusEFI Hellen
Size: A3	Author: andreika	Revision: 0.1	
Date: 25.02.2021		Sheet 1 of 1	



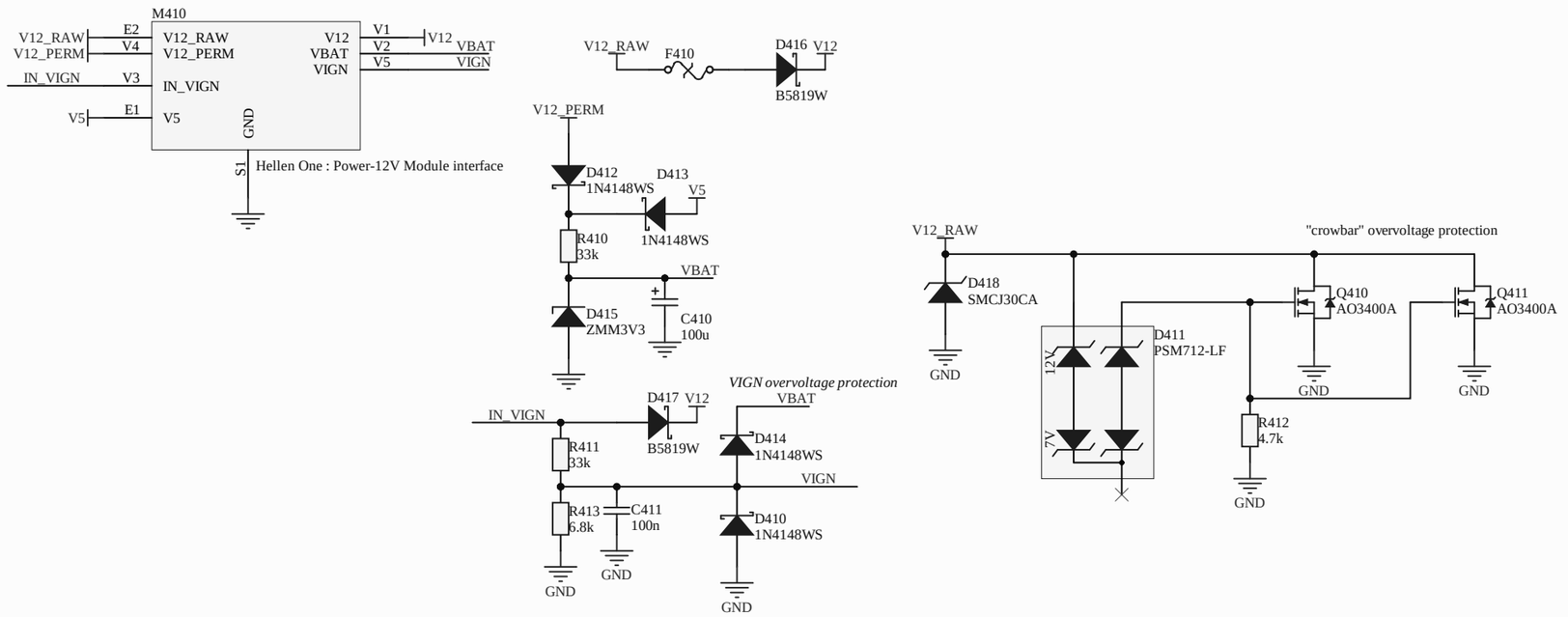
Title: ***Hellen-One CAN***			***rusEFI EMS***
Size: A3	Author: andreika	Revision: 0.1	***Hellen-One Platform***
Date: 02.03.2021		Sheet 1 of 1	*https://rusefi.com/s/hellen72*



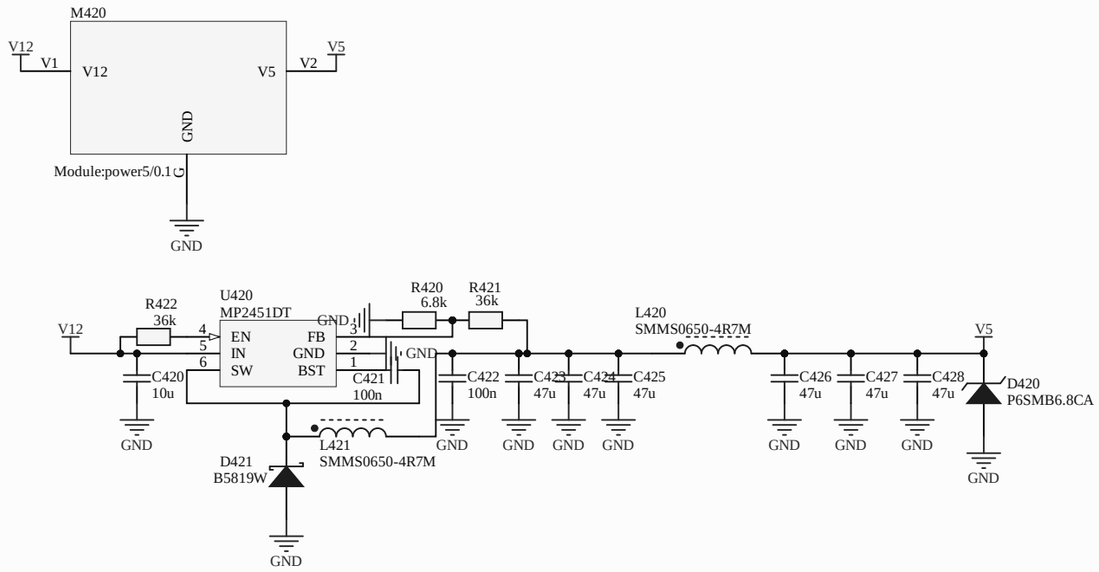
Title: ***Hellen-One ST-Link***			***rusEFI EMS***
Size: A3	Author: andreika	Revision: 0.1	***Hellen-One Platform***
Date: 02.03.2021		Sheet 1 of 1	*https://rusefi.com/s/hellen72*



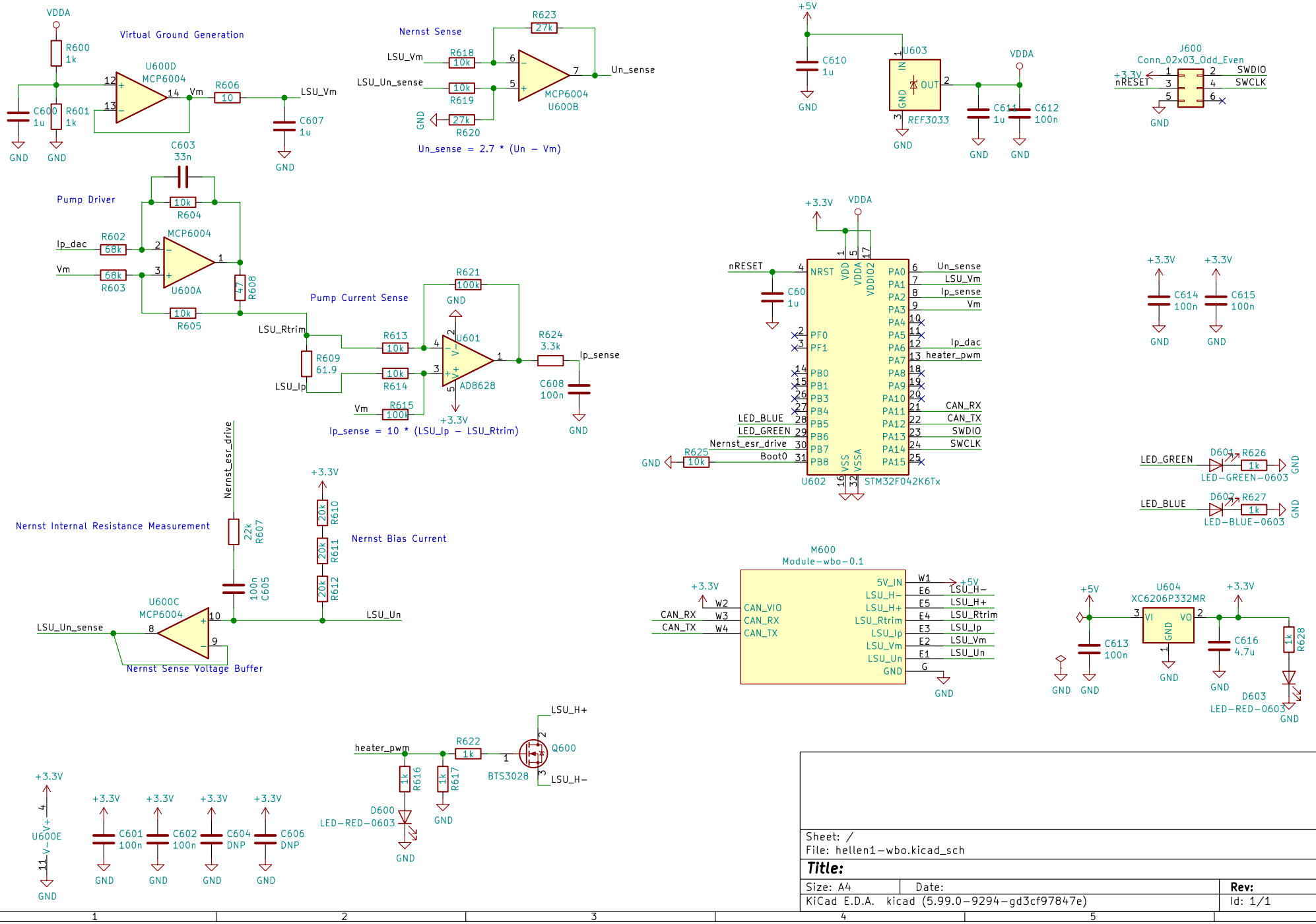
Title: ***Hellen-One Knock***			***rusEFI EMS*** ***Hellen-One Platform*** *https://rusefi.com/s/hellen72*
Size: A3	Author: andreika	Revision: 0.1	
Date: 28.01.2021		Sheet 1 of 1	



Title: ***Hellen-One Power12***			***rusEFI EMS*** ***Hellen-One Platform*** *https://rusefi.com/s/hellen72*
Size: A3	Author: andreika	Revision: 0.1	
Date: 28.01.2021		Sheet 1 of 1	



Title: ***Hellen-One Power5***			***rusEFI EMS*** ***Hellen-One Platform*** *https://rusefi.com/s/hellen72*
Size: A3	Author: andreika	Revision: 0.1	
Date: 28.01.2021		Sheet 1 of 1	


Virtual Ground Generation
VDDA
R600 1k
C600 1u
R601 1k
GND
U600D MCP6004
Vm
R606 10
LSU_Vm
C607 1u
Nernst Sense
R623 27k
LSU_Vm
R618 10k
LSU_Un_sense
R619 10k
R620 27k
U600B MCP6004
Un_sense
Un_sense = 2.7 * (Un − Vm)
+5V
C610 1u
U603
REF3033
C611 1u
C612 100n
J600
Conn_02x03_Odd_Even
SWDIO
SWCLK
nRESET
Pump Driver
C603 33n
R604 10k
R602 68k
R603 68k
R605 10k
R608 47
U600A MCP6004
Ip_dac
Vm
Pump Current Sense
R621 100k
R613 10k
R614 10k
R615 100k
R609 61.9
LSU_Rtrim
LSU_Ip
U601 AD8628
R624 3.3k
Ip_sense
C608 100n
Ip_sense = 10 * (LSU_Ip − LSU_Rtrim)
+3.3V
VDDA
nRESET
C60 1u
U602 STM32F042K6Tx
PA0 Un_sense
PA1 LSU_Vm
PA2 Ip_sense
PA3 Vm
PA6 Ip_dac
PA7 heater_pwm
PA11 CAN_RX
PA12 CAN_TX
PA13 SWDIO
PA14 SWCLK
PB5 LED_BLUE
PB6 LED_GREEN
PB7 Nernst_esr_drive
PB8 Boot0
R625 10k
C614 100n
C615 100n
LED_GREEN
D604
R626 1k
LED-GREEN-0603
LED_BLUE
D602
R627 1k
LED-BLUE-0603
Nernst Internal Resistance Measurement
Nernst_esr_drive
R607 22k
C605 100n
R610 20k
R611 20k
R612 20k
Nernst Bias Current
U600C MCP6004
LSU_Un_sense
LSU_Un
Nernst Sense Voltage Buffer
M600
Module-wbo-0.1
CAN_VIO
CAN_RX
CAN_TX
5V_IN
LSU_H−
LSU_H+
LSU_Rtrim
LSU_Ip
LSU_Vm
LSU_Un
GND
W1 W2 W3 W4
E6 E5 E4 E3 E2 E1 G
U604 XC6206P332MR
C613 100n
C616 4.7u
R628 1k
D603 LED-RED-0603
heater_pwm
R622 1k
R616 1k
R617 1k
D600 LED-RED-0603
Q600 BTS3028
U600E
C601 100n
C602 100n
C604 DNP
C606 DNP
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Title:
Size: A4
Date:
Rev:
KiCad E.D.A. kicad (5.99.0-9294-gd3cf97847e)
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