

MCU

File: mcu.kicad\_sch

Sensors

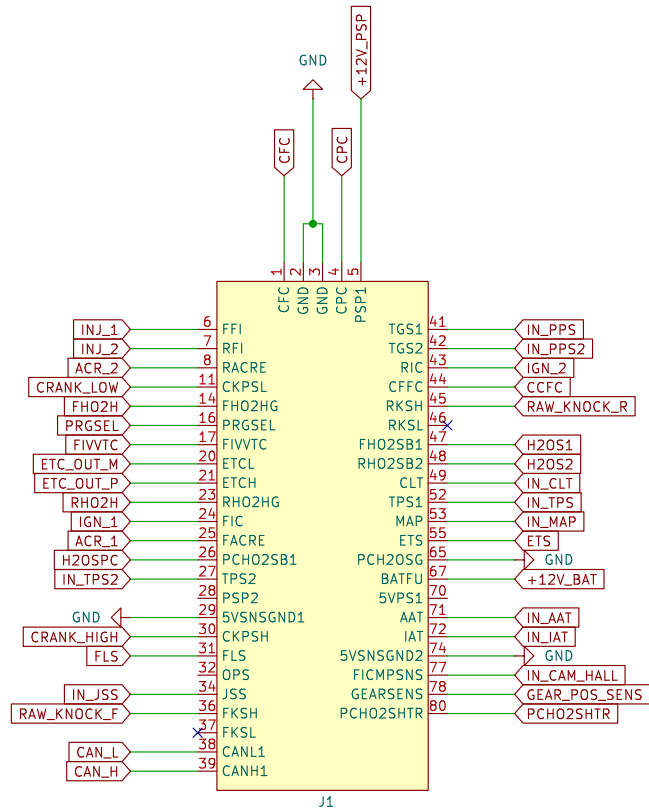
File: sensors.kicad\_sch

Bluetooth

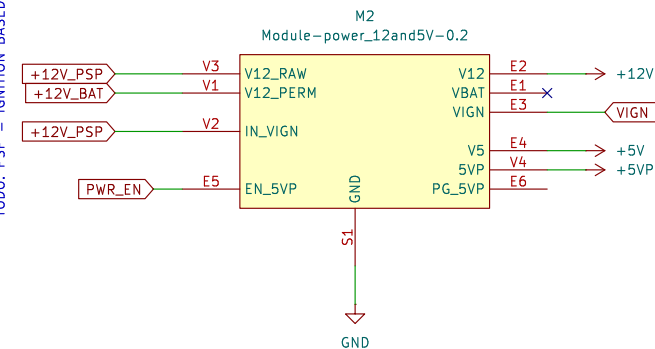
File: bluetooth.kicad\_sch

Outputs

File: outputs.kicad\_sch

**TODO:****Do we need to connect PSP2? Like connect it directly to PSP1 or sth? Measure at OEM ECU.****DONE: GEARSSENS analyze the signal -> Kind of analog?****DONE: AM POSITION = FICMPSNS Hall effect or what is that?****Knock Sensor LOW signals not needed?**

TODO: PSP = IGNITION BASED?



GND ← TP1 TestPoint\_Probe  
 +3V3 ← TP2 TestPoint\_Probe  
 +5V ← TP3 TestPoint\_Probe  
 +12V ← TP4 TestPoint\_Probe  
 +3V3SW ← TP5 TestPoint\_Probe

FID1 Fiducial  
 FID2 Fiducial  
 FID3 Fiducial  
 FID4 Fiducial

Hellen-Bremen

Sheet: /  
File: hellenbremen.kicad\_sch

**Title:**

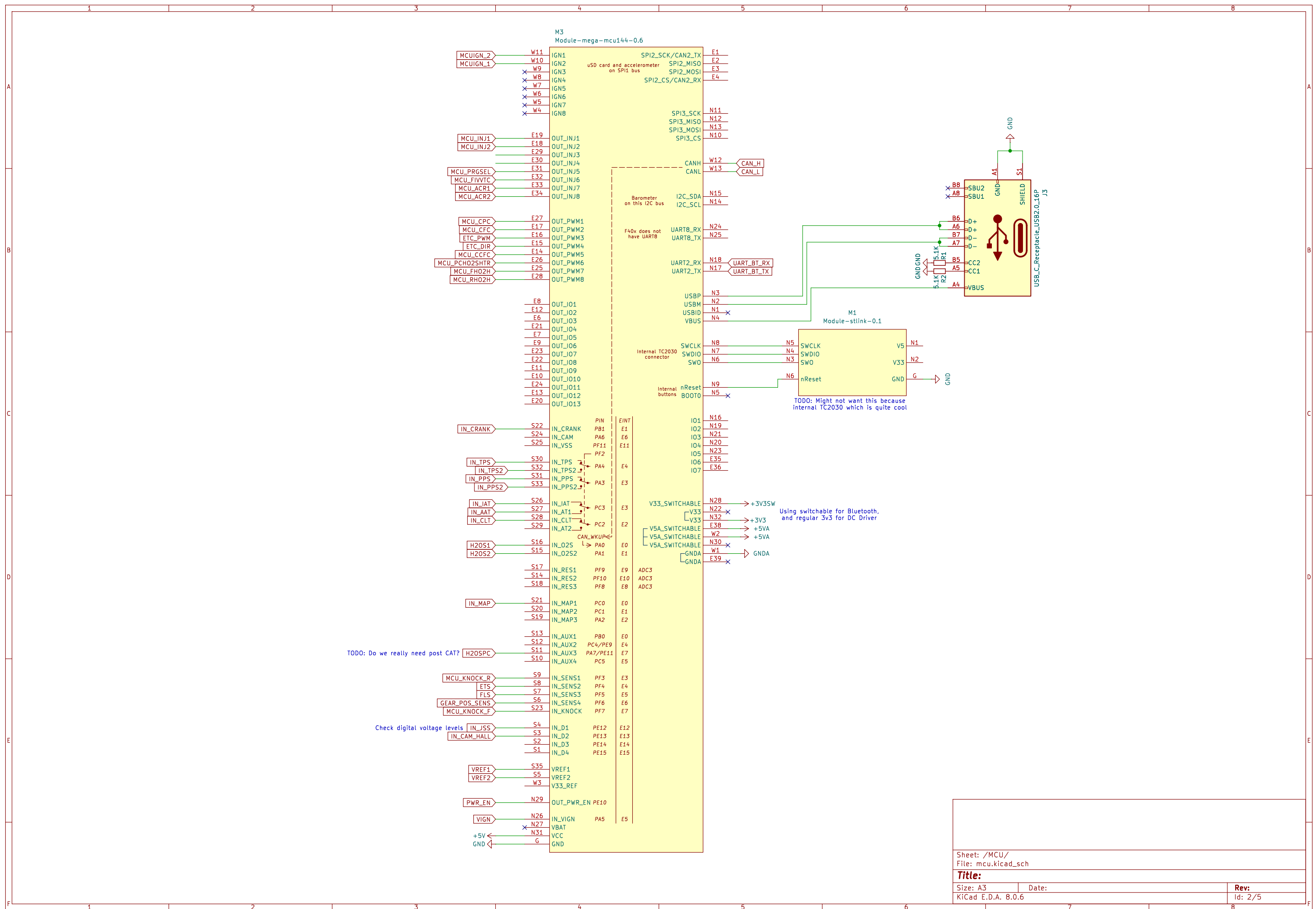
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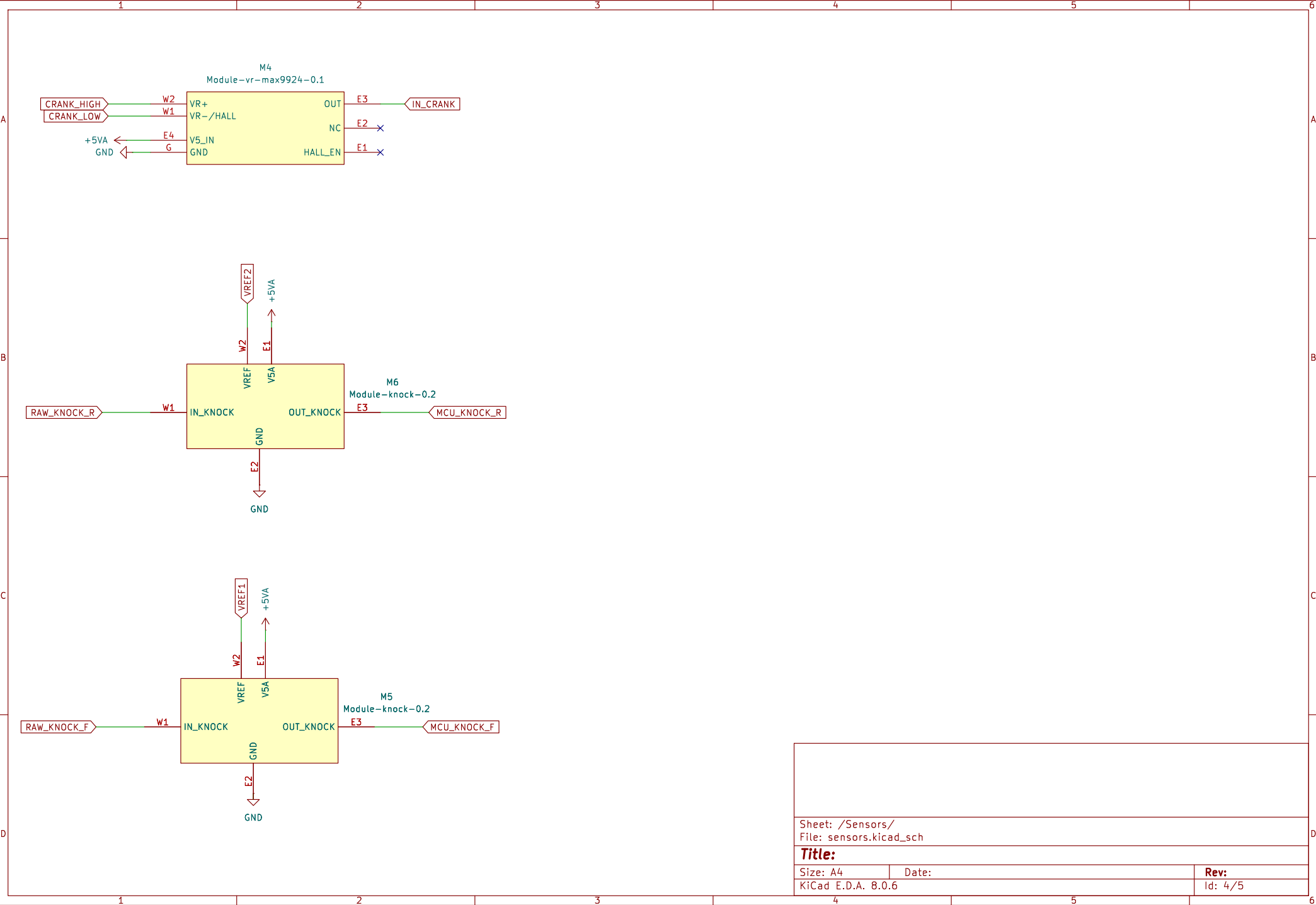
Date:

KiCad E.D.A. 8.0.6

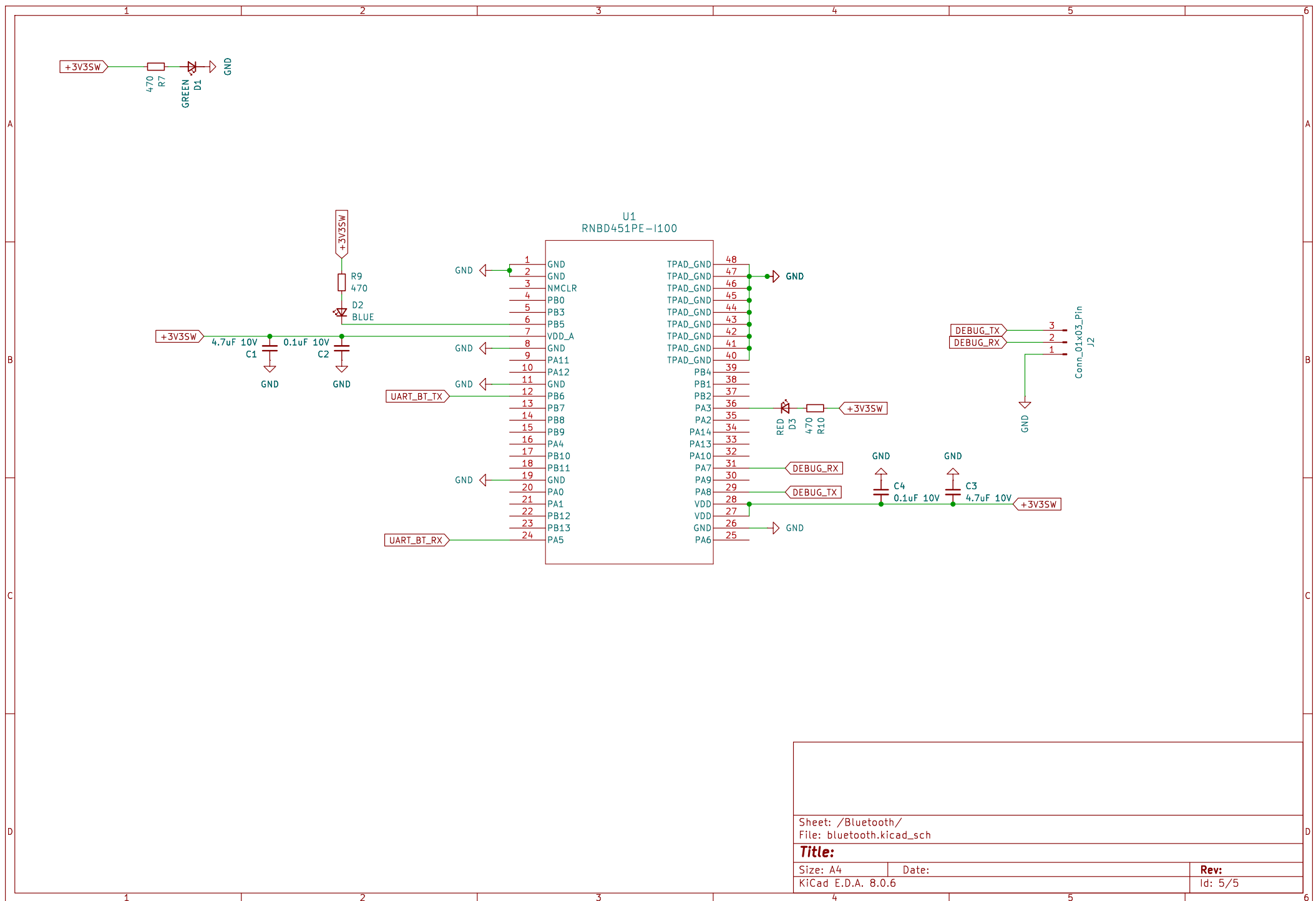
Rev: A

Id: 1/5





|   |         |      |
|---|---------|------|
| Sheet: /Sensors/<br>File: sensors.kicad_sch |         |      |
| <b>Title:</b>                               |         |      |
| Size: A4                                    | Date:   | Rev: |
| KiCad E.D.A. 8.0.6                          | Id: 4/5 |      |

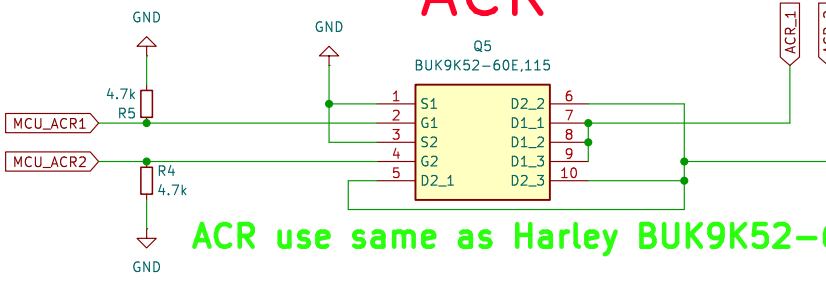


# INJECTORS



INJECTORS MEASURED TO TAKE MAX 1A EACH WHEN OPEN

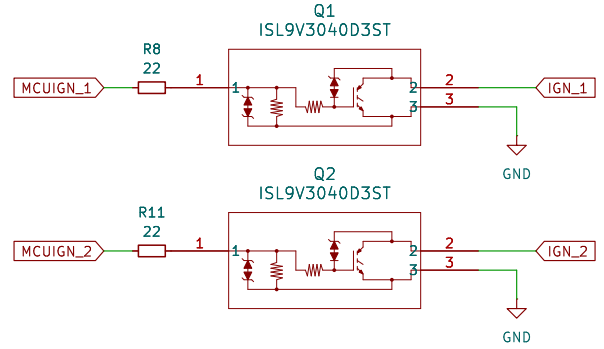
# ACR



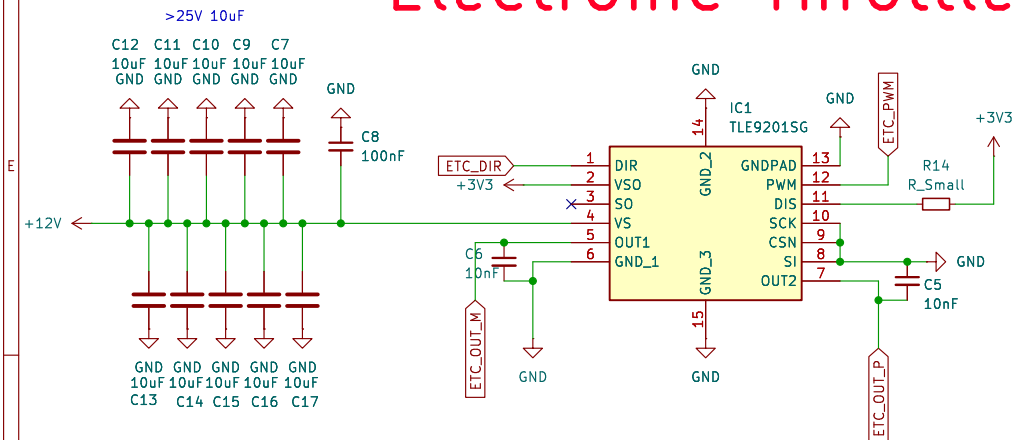
ACR use same as Harley BUK9K52-60E

Harley Uses:  
<https://www.mouser.de/ProductDetail/onsemi/FGB3040G2-F085C?qs=2WXlatMagcHzMRj1hscbYQ%3D%3D>

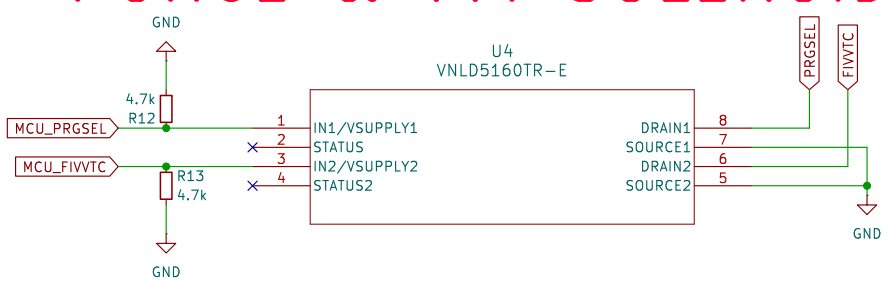
# IGNITION



# Electronic Throttle



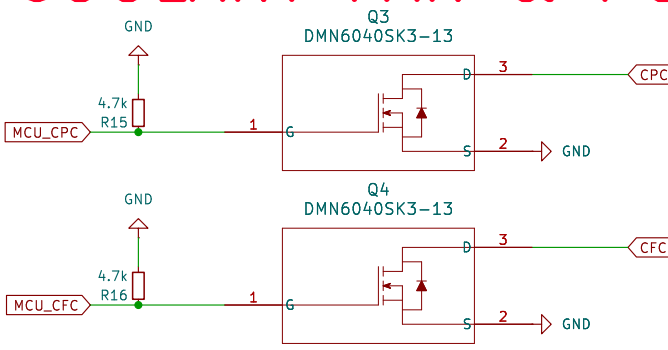
# PURGE & VVT SOLENOIDS



COOLANT FAN PULLS AROUND 4A WHEN CONSTANT 100%,  
INITIALLY PULLING UP TO 8A FOR GETTING SPINNING  
HARLEY USES: HUF76429D3

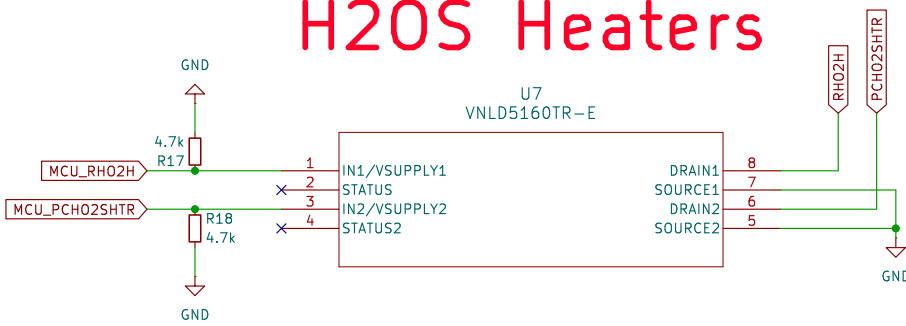
POSSIBLE: <https://www.digikey.de/de/products/detail/onsemi/HUF76629D3ST/4553106>  
AND: <https://www.digikey.de/de/products/detail/diodes-incorporated/DMN6040SK3-13/8545933>

# COOLANT FAN & PUMP



H2OS Heaters are PWM Controlled and max out at about 0.9 Amps  
at room temperature, then reducing with coming heat

# H2OS Heaters



CCFC: Harley uses 2N06L35 TODO!

# CCFC & HO2HTR

