

Duet3 Mainboard

Processor

Processor

Processor.sch
sheet5F4EC370

Stepper Driver & Endstops

Stepper Drivers

Stepper_Drv.sch
MOSFET outputs

Headers

Headers

Headers.sch
sheet5B64A4E5

Endstops
&
Probes

Endstops.sch
Power

MOSFET outputs

Htr_Fan.sch

Comms

Comms.sch

Power

Power.sch

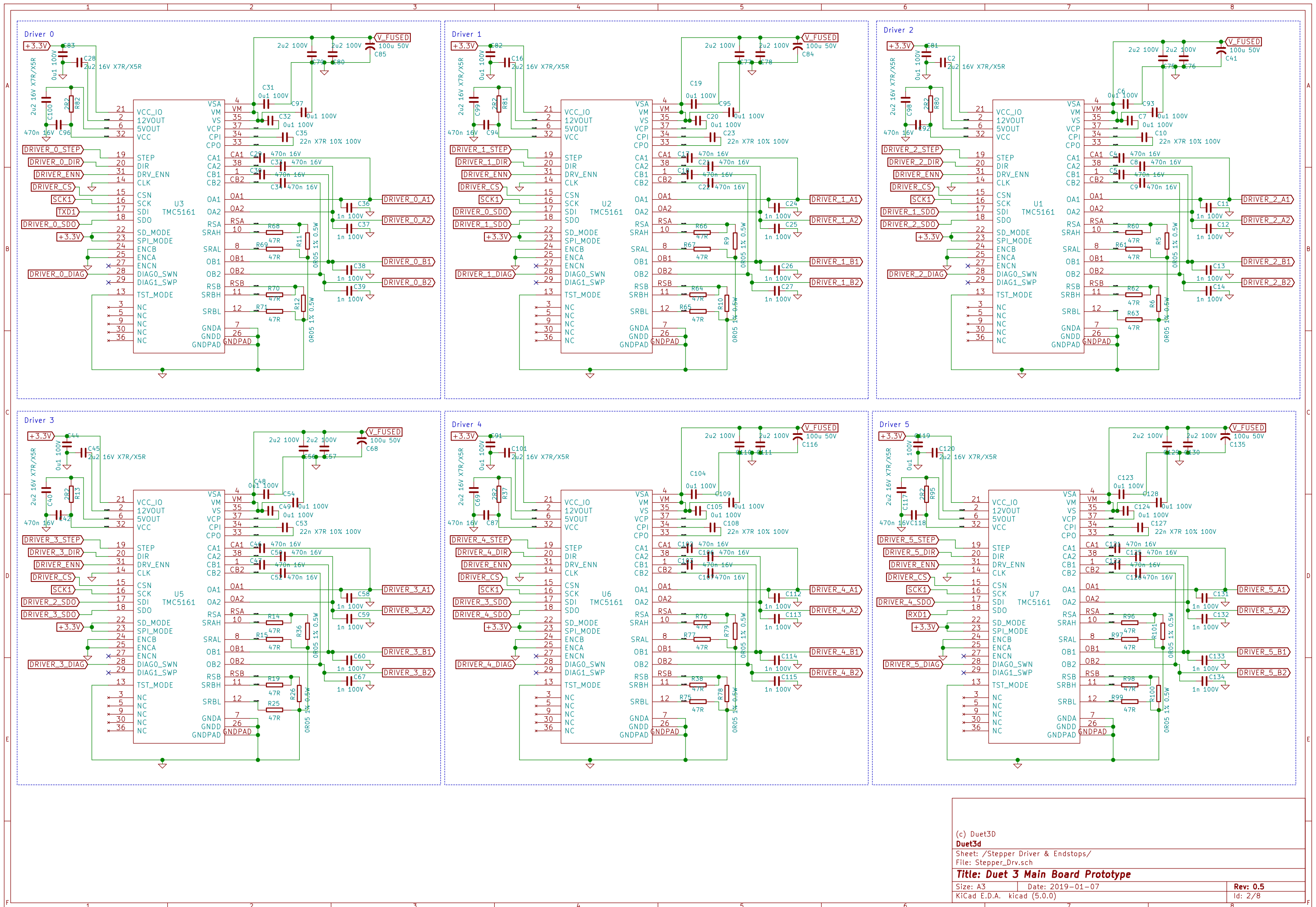
(c) Duet3D
Duet3d

Sheet: /
File: Duet3_MB.sch

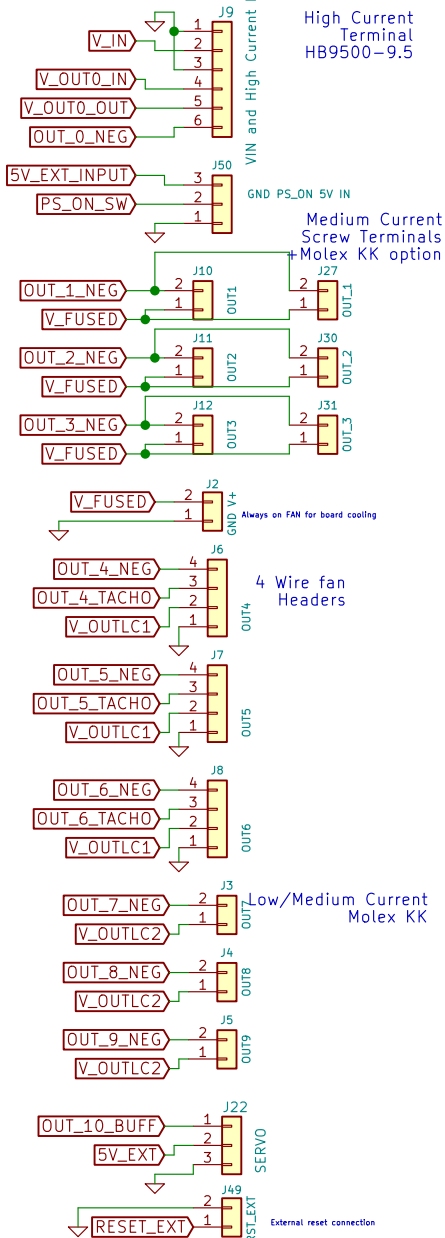
Title: Duet 3 Main Board Prototype

Size: A4 Date: 2019-01-07
KiCad E.D.A. kicad (5.0.0)

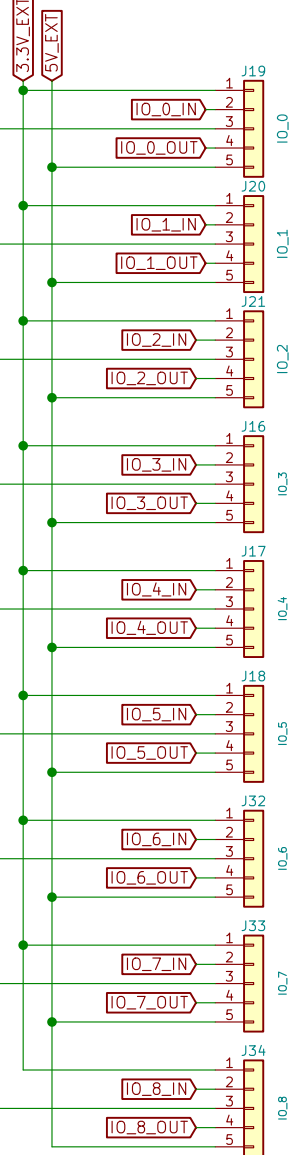
Rev: 0.5
Id: 1/8



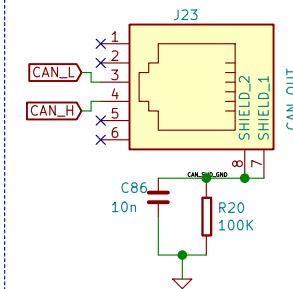
Power, MOSFET outputs



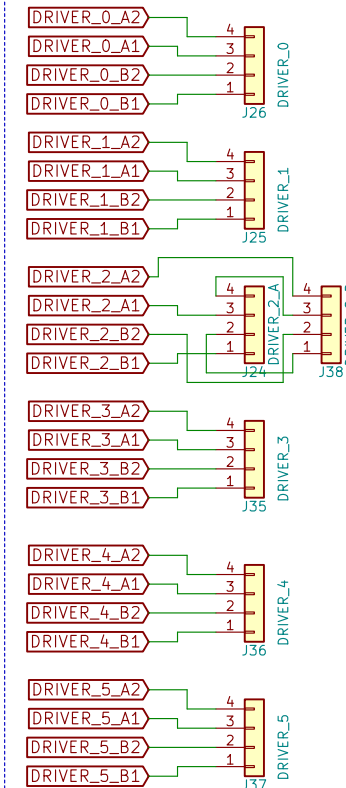
I/O Headers (used for endstops, probes and filament monitors)



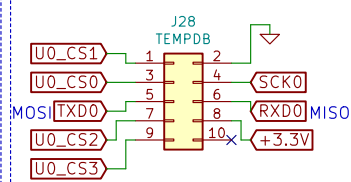
CAN RJ11 port



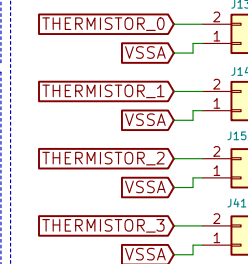
Motor Connectors



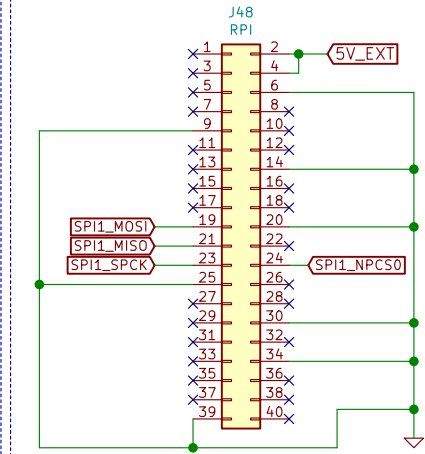
Temp DB Header



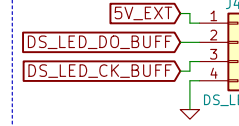
Temperature (Thermistor & PT1000)



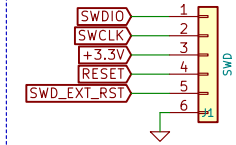
RPI Connection



DotStar LED connection

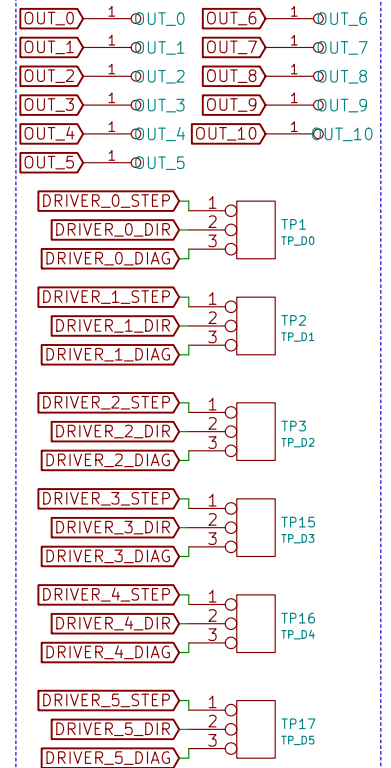


SWD



Test Points

All test points are DNP



(c) Duet3D

Duet3d

Sheet: /Headers/

File: Headers.sch

Title: Duet 3 Main Board Prototype

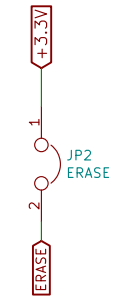
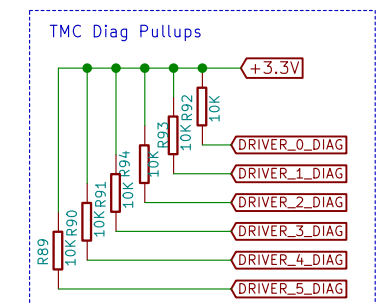
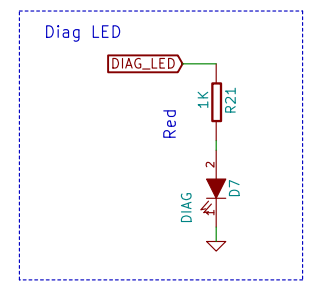
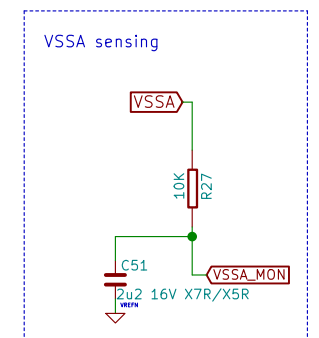
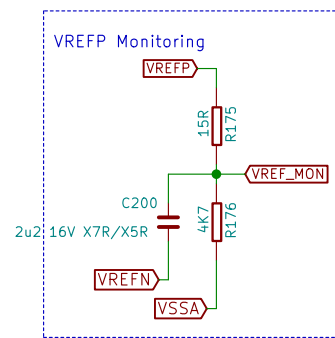
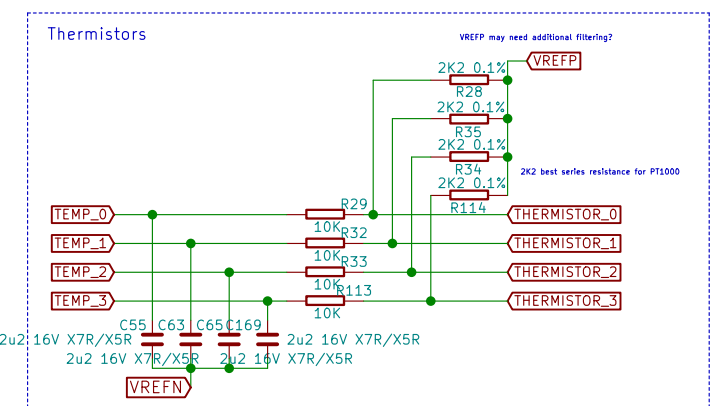
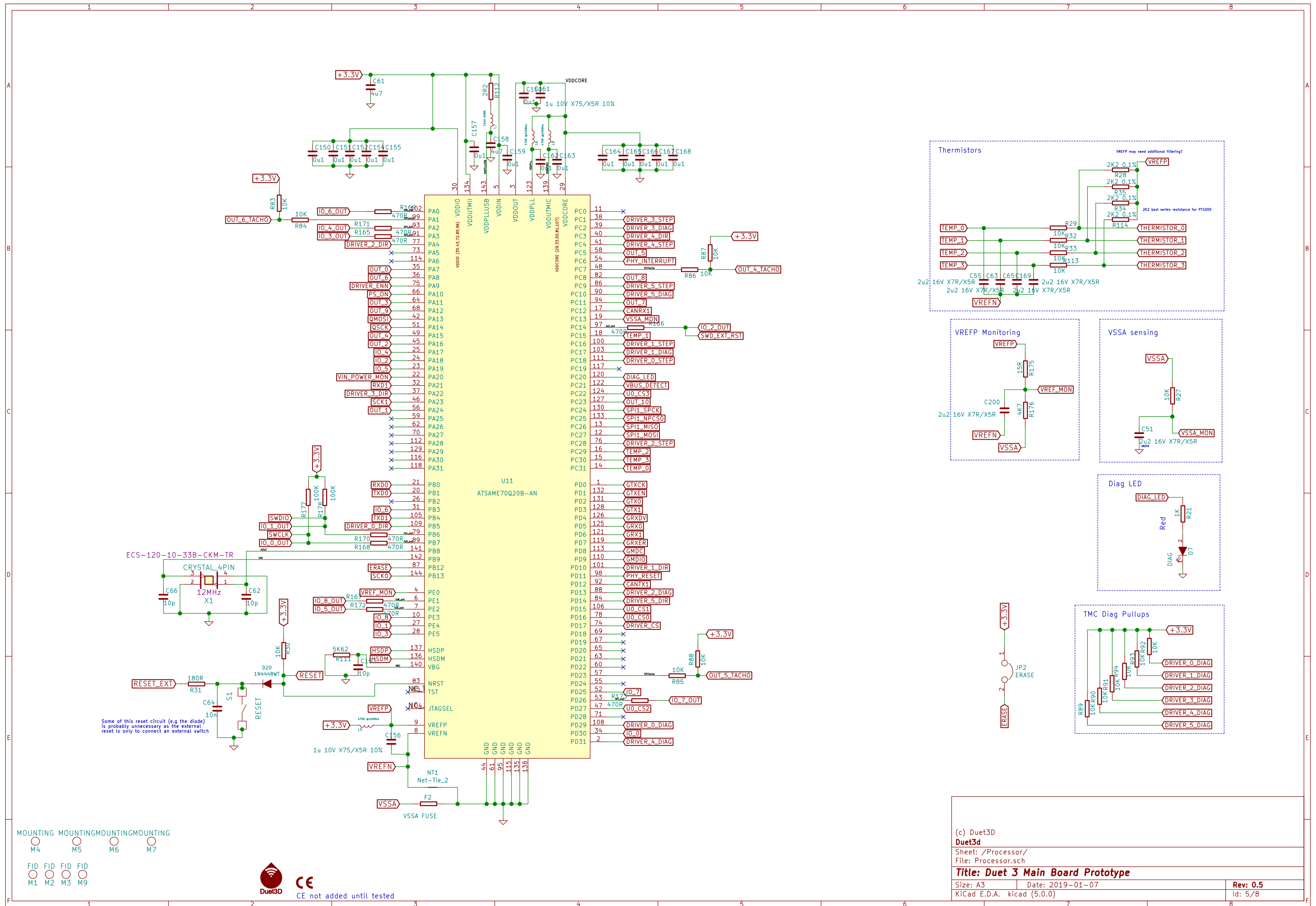
Size: A4

Date: 2019-01-07

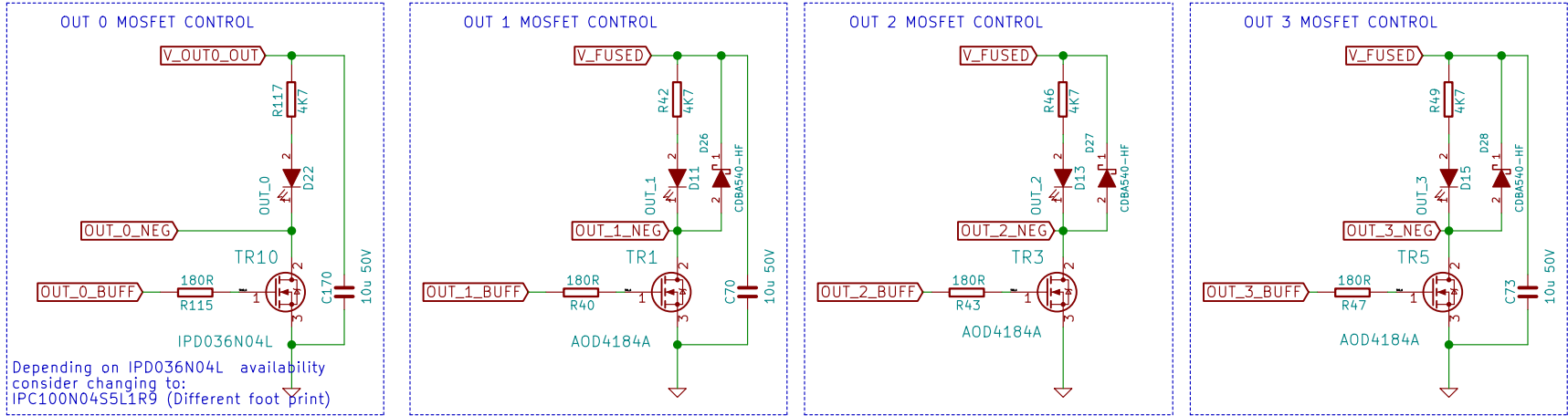
KiCad E.D.A. kicad (5.0.0)

Rev: 0.5

Id: 3/8



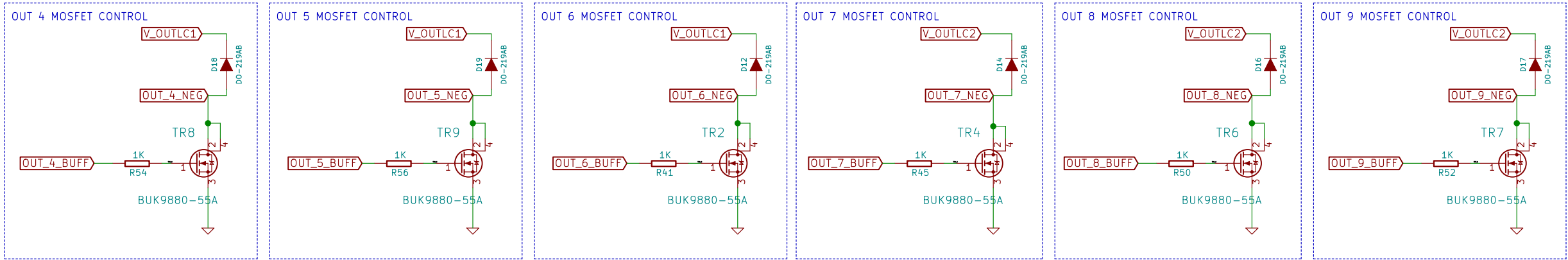
OUT0 – OUT3 – High current MOSFETs



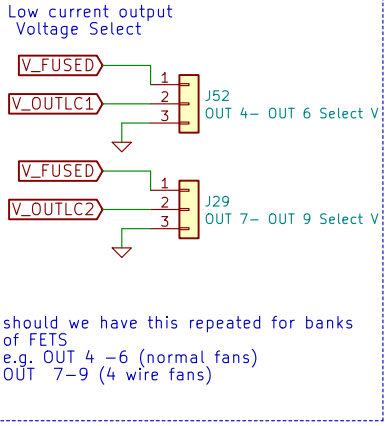
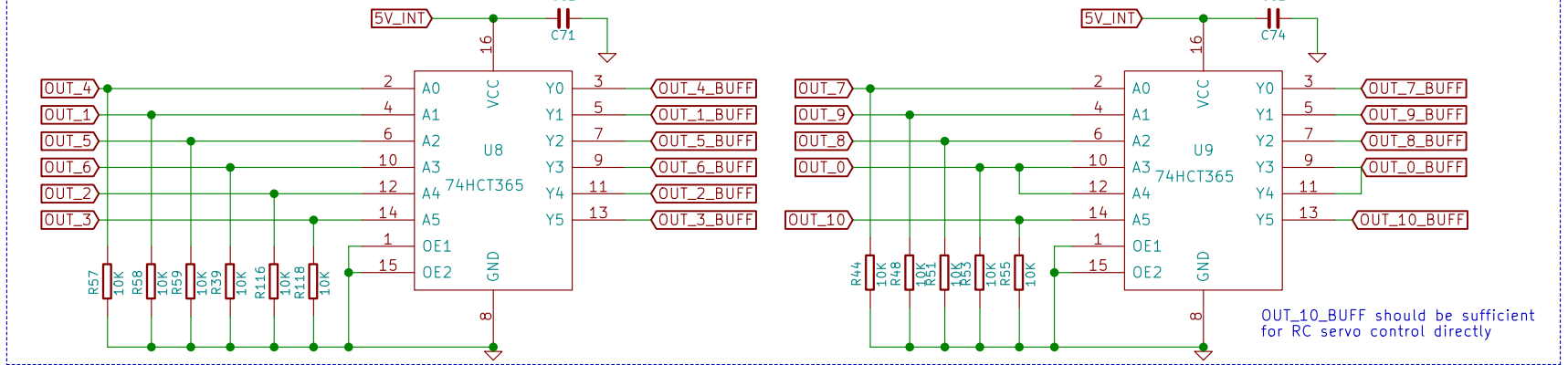
Depending on IPD036N04L availability
consider changing to:
IPC100N04S5L1R9 (Different foot print)

2 10u caps should be fine
for the three medium power FETs

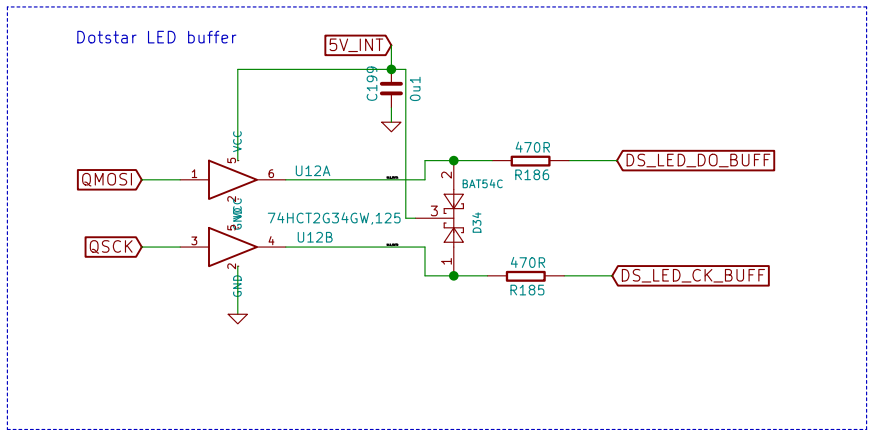
Should replace the PMV40UN2 with a higher voltage and potentially higher current MOSFET (gate resistors change depending on FET choice)



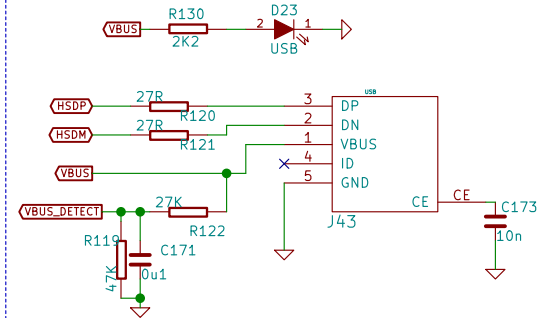
FET Drives



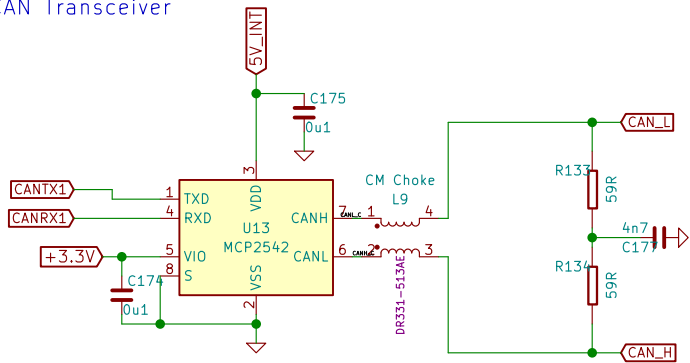
should we have this repeated for banks
of FETs
e.g. OUT 4 –6 (normal fans)
OUT 7–9 (4 wire fans)



USB



CAN Transceiver



Ethernet/Ethercat Master

