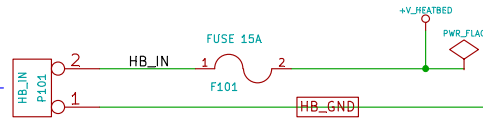


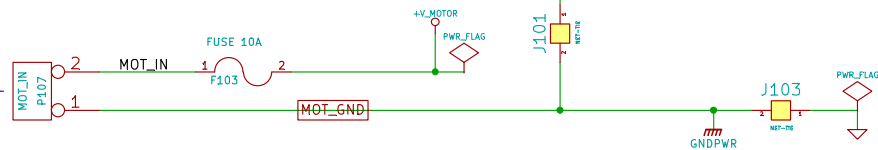
Power

PS-ON P103

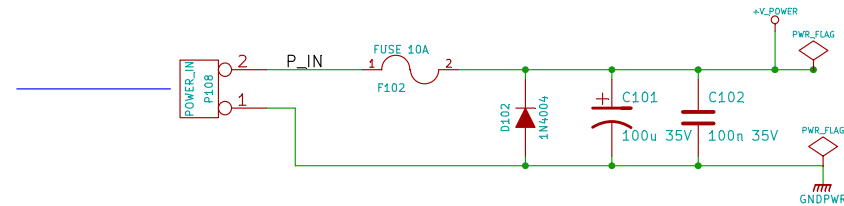
Heatbed Only: 12–24V, 15A



Motors only, 12–24V

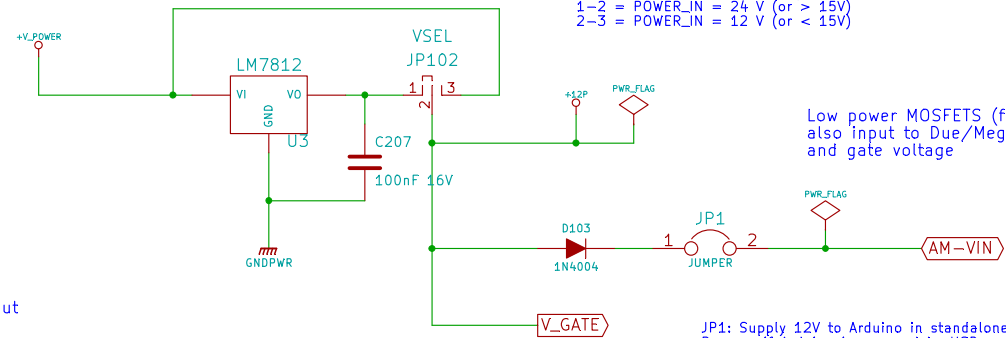


Medium power MOSFETS
(extruder heaters, fans)



JP102 – VSEL – Select voltage
1–2 = POWER_IN = 24 V (or > 15V)
2–3 = POWER_IN = 12 V (or < 15V)

Low power MOSFETS (fans etc)
also input to Due/Mega
and gate voltage

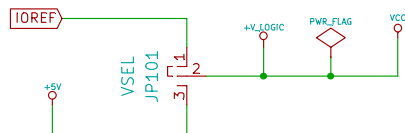


JP1: Supply 12V to Arduino in standalone operation
Remove if Arduino is powered by USB or other supply

Note: On R3 compatible Arduinos, IOREF will supply 3.3V (Due), or 5V (Mega).

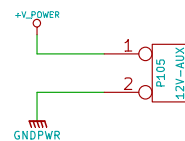
If IOREF is not provided (non-R3) then it must be a 5V Arduino so set VSEL to 5V.

If not 5V then need to get 3.3V from somewhere ...



VSEL – Select logic voltage
1–2 = Autoselect by IOREF
2–3 = 5V

Power output



File: Power.sch

Sheet: /Power/

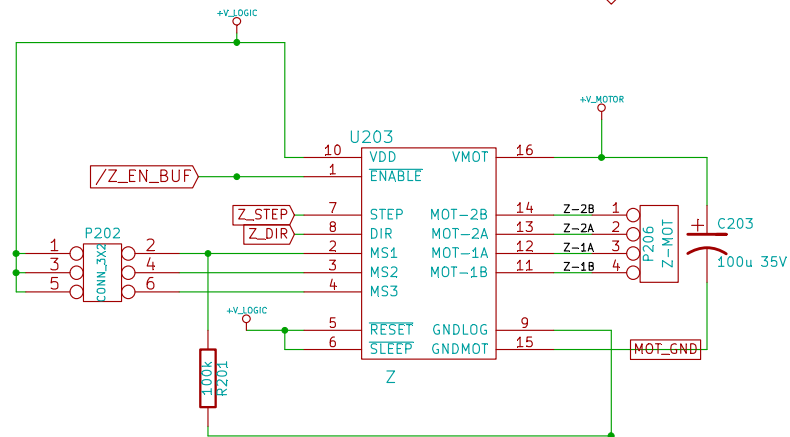
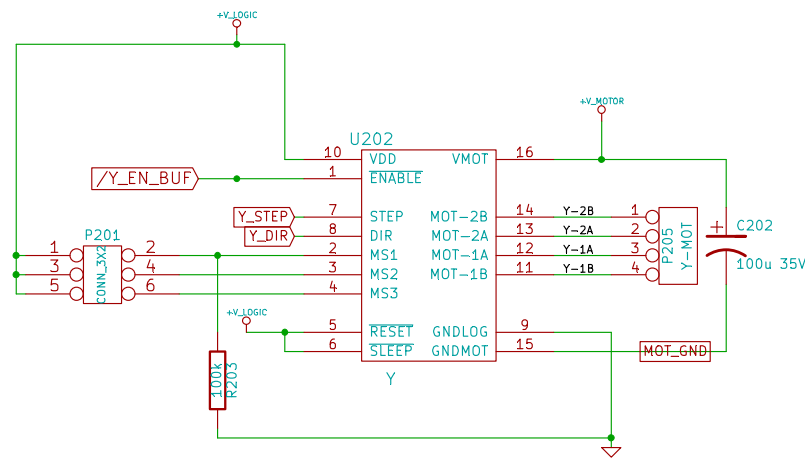
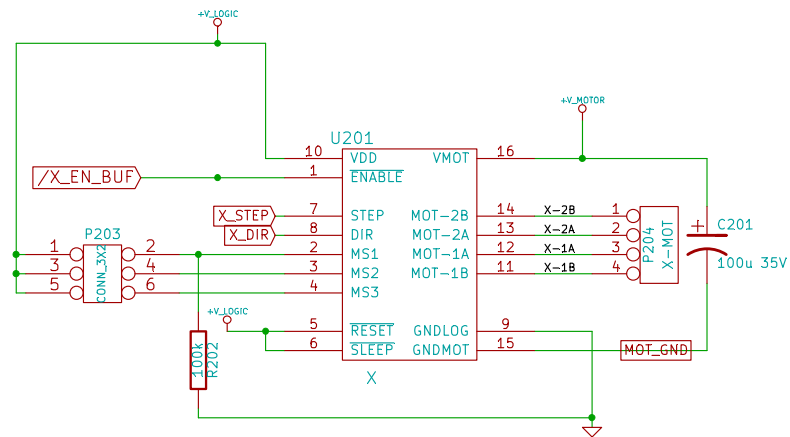
Title:

Size: A4 Date: 24 sep 2013

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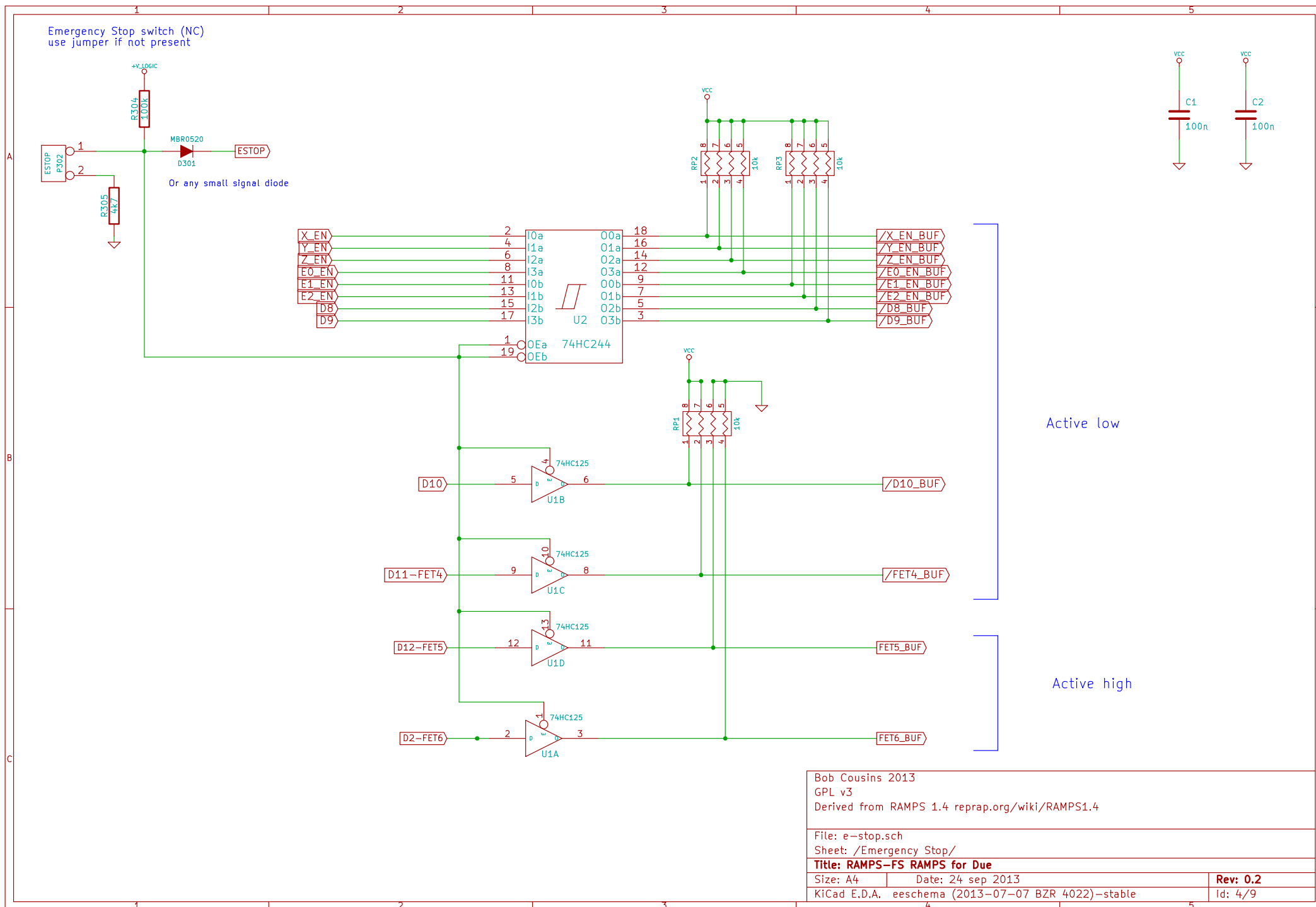
Bob Cousins 2013
 GPL v3
 Derived from RAMPS 1.4 reprap.org/wiki/RAMPS1.4

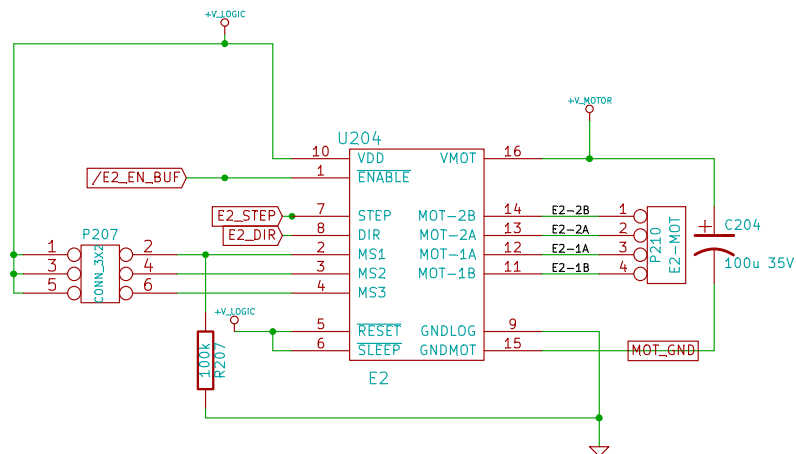
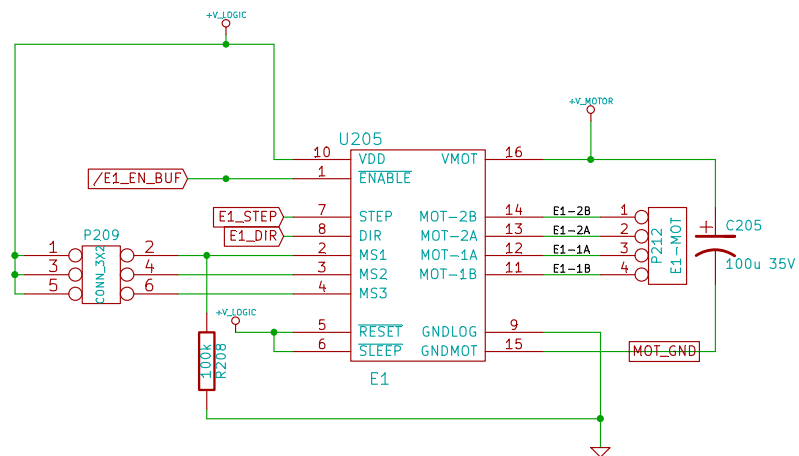
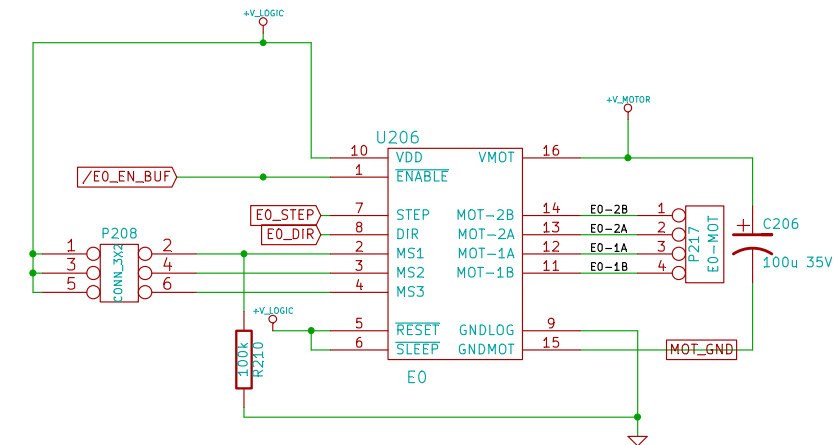
File: steppers.sch
 Sheet: /Stepper Drivers/

Title: RAMPS-FS RAMPS for Due

Size: A4 Date: 24 sep 2013
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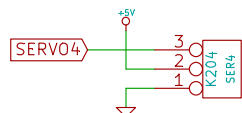
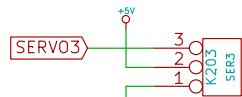
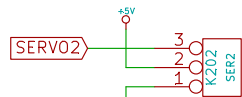
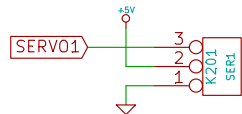
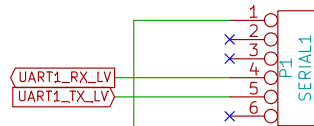
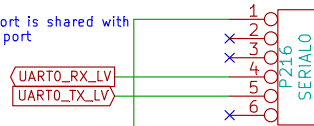
File: steppers2.sch		
Sheet: /Stepper Drivers 2/		
Title:		
Size: A4	Date: 24 sep 2013	Rev: 0.2
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NB: On Arduino Due: IOs on this page are not 5V tolerant. Do not exceed 3.3V.

Serial

Note: this serial port is shared with USB programming port

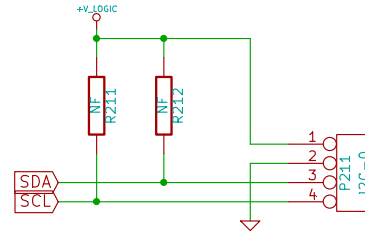
UART-TTL



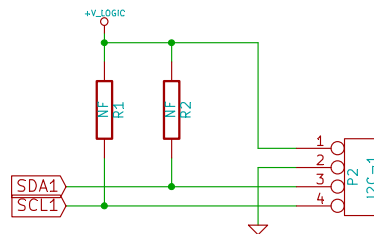
Servos

Need buffered outputs?

I2C

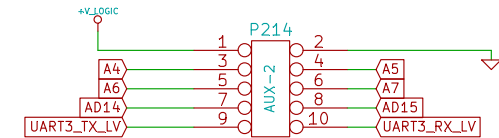


1k5 Pull ups on Due
Must not have external pullups to 5V



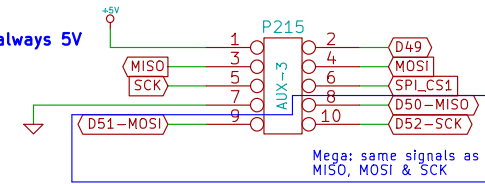
Aux connectors

Aux2



Aux3 - SPI

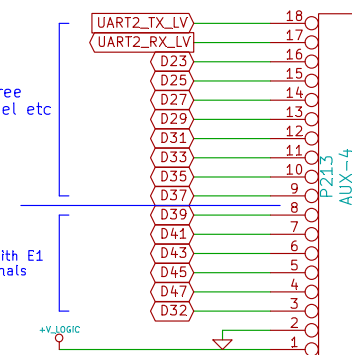
NB This pin is always 5V



Aux4 - general IO

These are free for LCD panel etc

These are shared with E1 and E2 stepper signals



File: con_misc.sch

Sheet: /Misc Connectors/

Title:

Size: A4

Date: 24 sep 2013

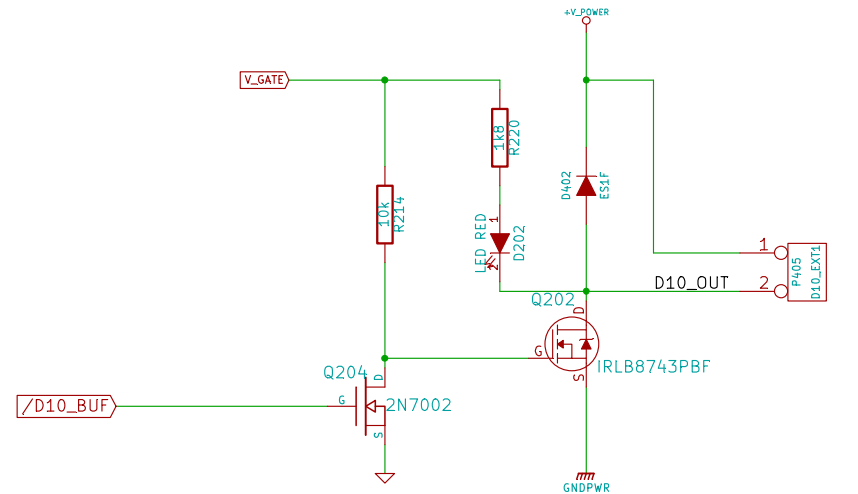
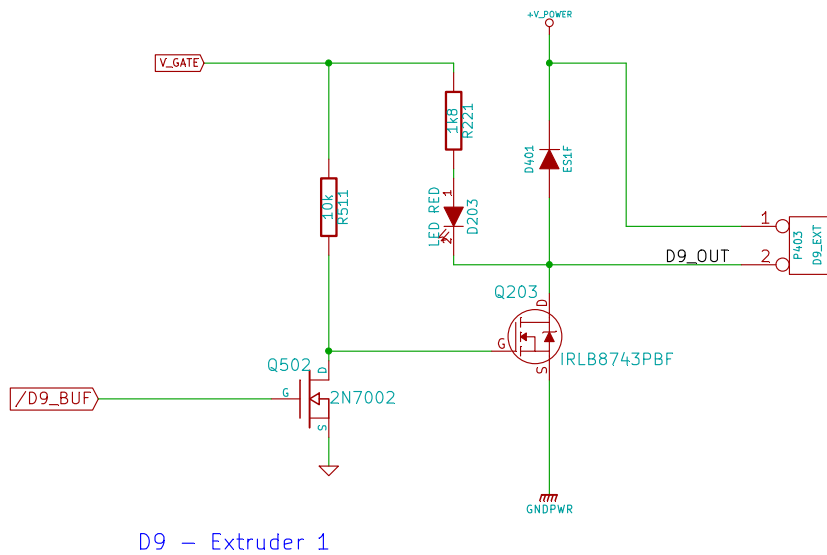
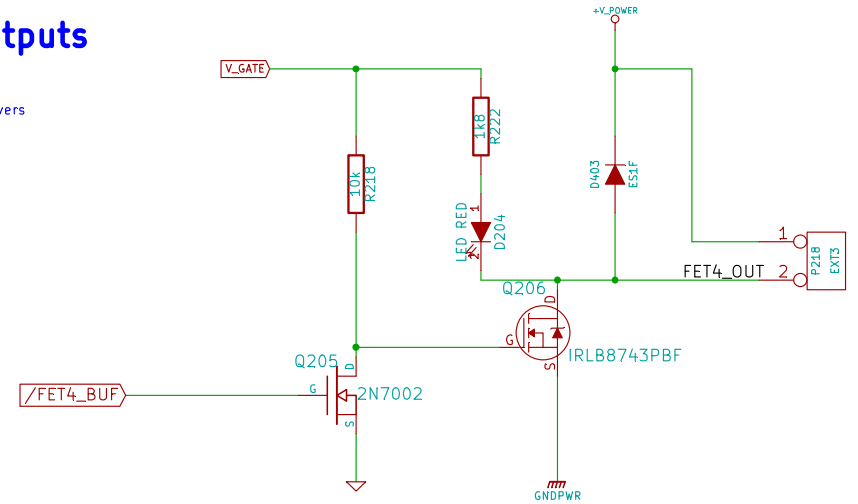
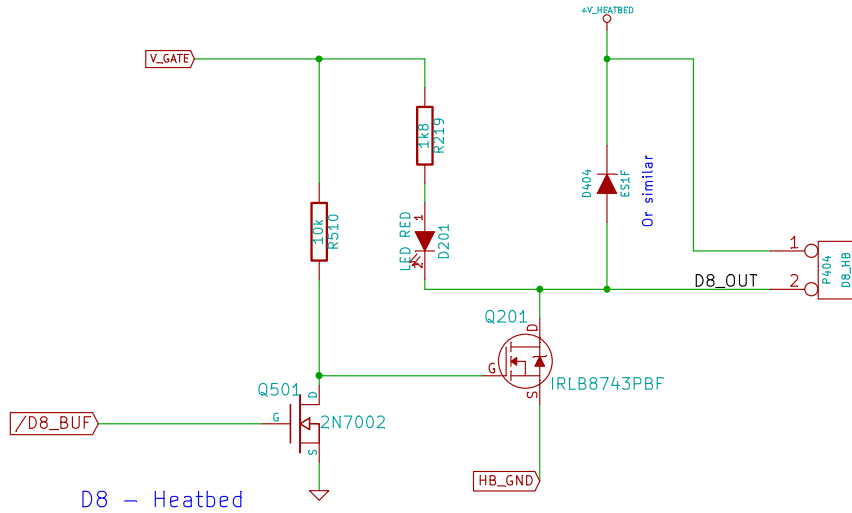
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MOSFET Outputs

NB: inverting drivers



File: con_outputs.sch

Sheet: /Outputs/

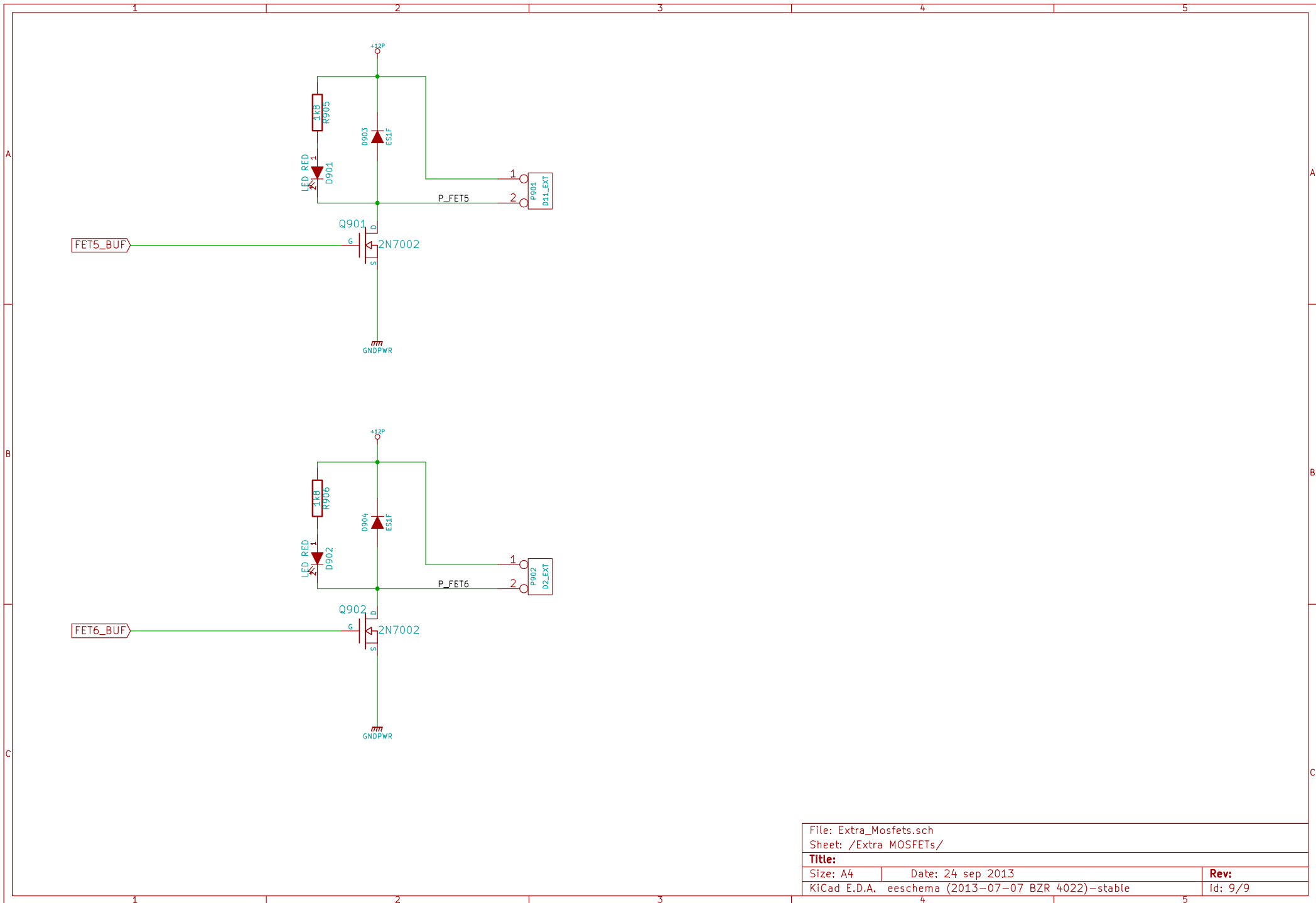
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Size: A4 Date: 24 sep 2013

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File: Extra_Mosfets.sch		
Sheet: /Extra MOSFETs/		
Title:		
Size: A4	Date: 24 sep 2013	Rev:
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