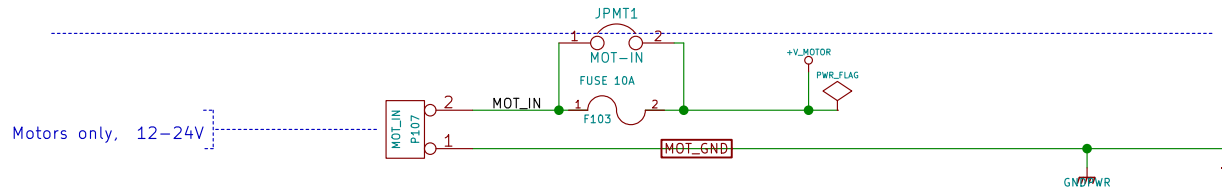


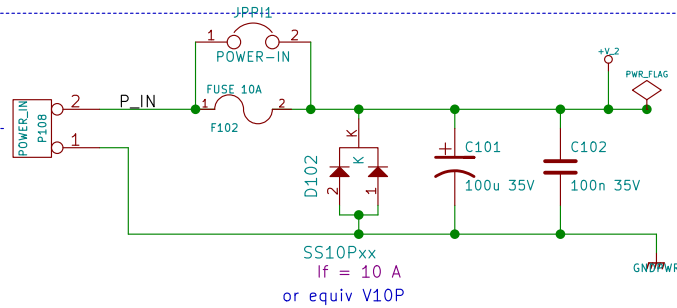
Power



Note: use thick traces for all high power connections

Medium power MOSFETS
(extruder heaters, fans)

12V or 24V input
(ensure to set JP102 correctly!)

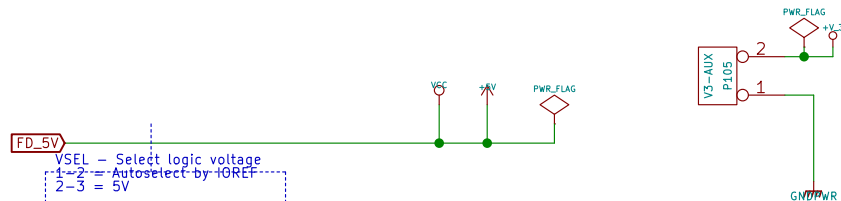


JP102 – VSEL – Select voltage
1–2 = POWER_IN = 24 V (or > 15V)
2–3 = POWER_IN = 12 V (or < 15V)

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.

Aux Power output

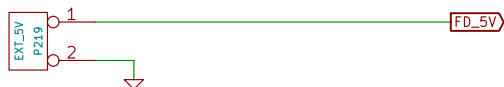


Low power MOSFETS (fans etc)
also input to Due/Mega
and gate voltage

or equiv V10P

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

ATX Power On



Gmas+

Sheet: /Power/
File: Power.sch

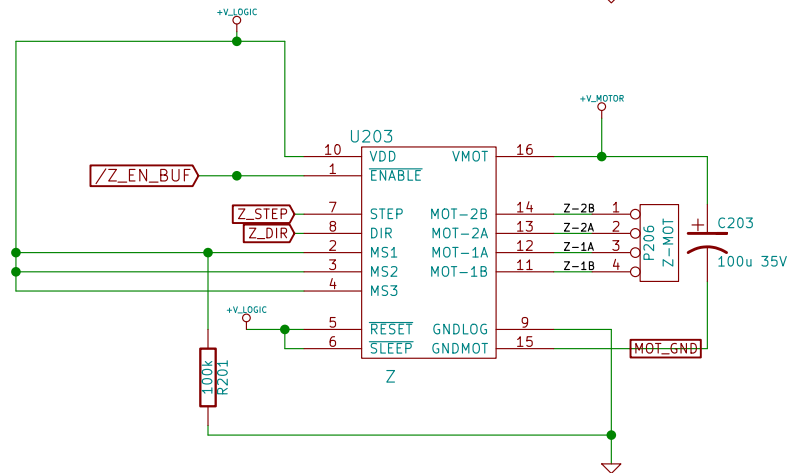
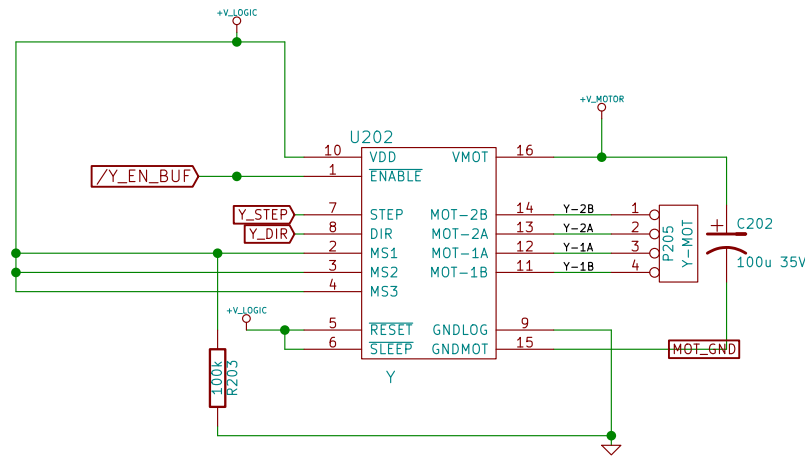
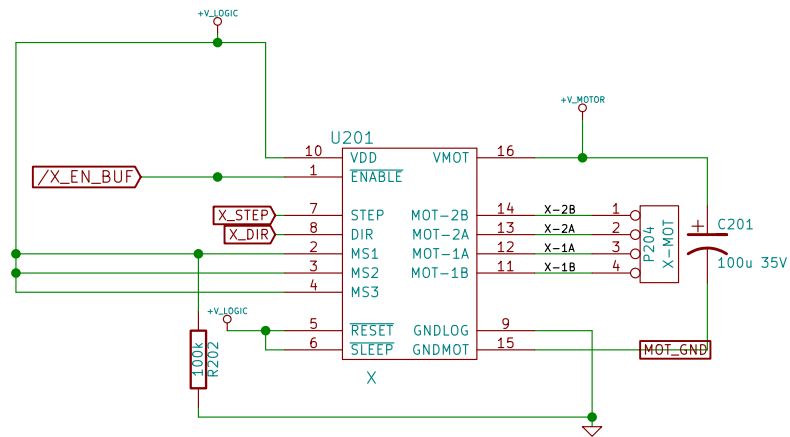
Title: OneGeo Controller Shield

Size: A4 Date: 2017-05-11

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Rev: v1

Id: 2/8



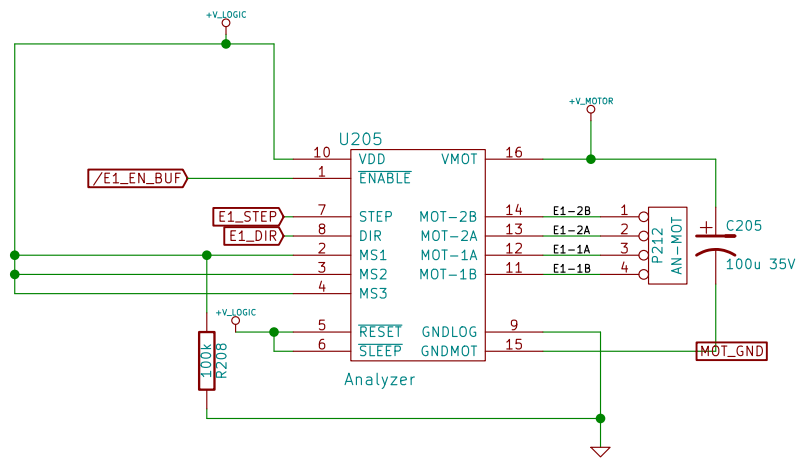
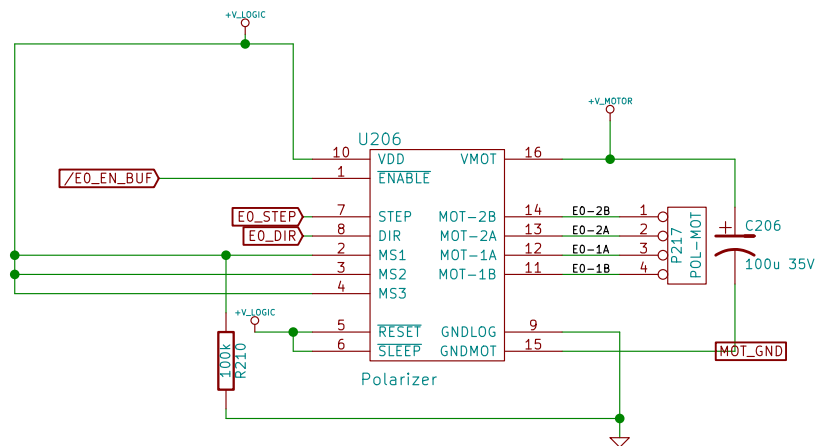
Gmas+

Sheet: /Stepper Drivers/
File: steppers.sch

Title: OneGeo Controller Shield

Size: A4 Date: 2017-05-11
KiCad E.D.A. kicad 4.0.2+dfsg1-stable

Rev: v1
Id: 3/8



Gmas+

Sheet: /Stepper Drivers 2/
File: steppers2.sch

Title: OneGeo Controller Shield

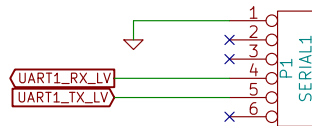
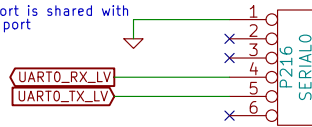
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| Size: A4 | Date: 2017-05-11 | Rev: v1 |
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NB: On Arduino Due: IOs on this page are not 5V tolerant. Do not exceed 3.3V.

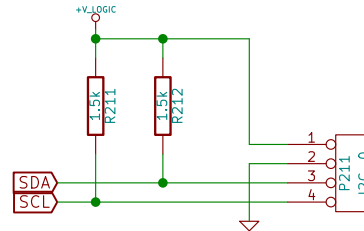
Serial

Note: this serial port is shared with USB programming port

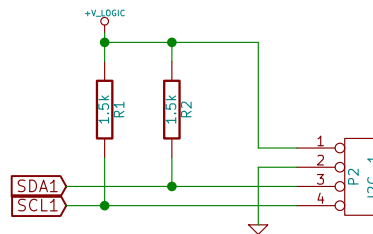
UART-TTL



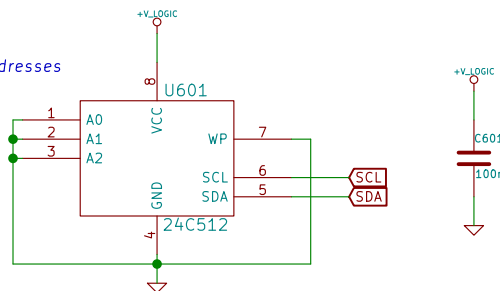
I2C



1k5 Pull ups on Due
Must not have external pullups to 5V if IOREF = 3.3V



Might want to allow other addresses



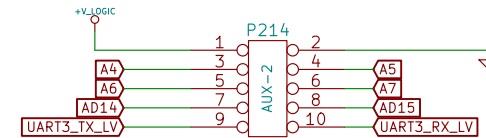
Servos

Need buffered outputs?

EEPROM

Aux connectors

Aux2



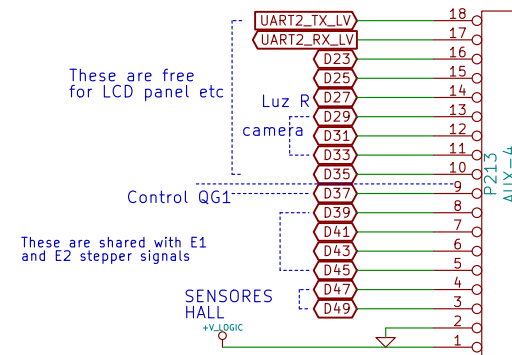
Aux3 - SPI

NB This pin is always 5V

Note: Some add-on boards connect this pin to GND.



Aux4 - general IO



Gmas+

Sheet: /Misc Connectors/
File: con_misc.sch

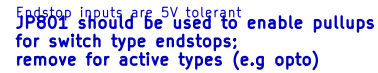
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Size: A4 Date: 2017-05-11

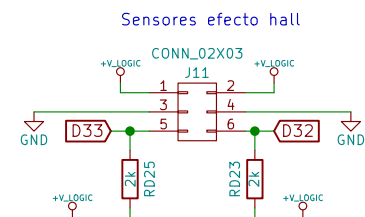
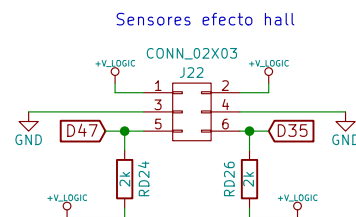
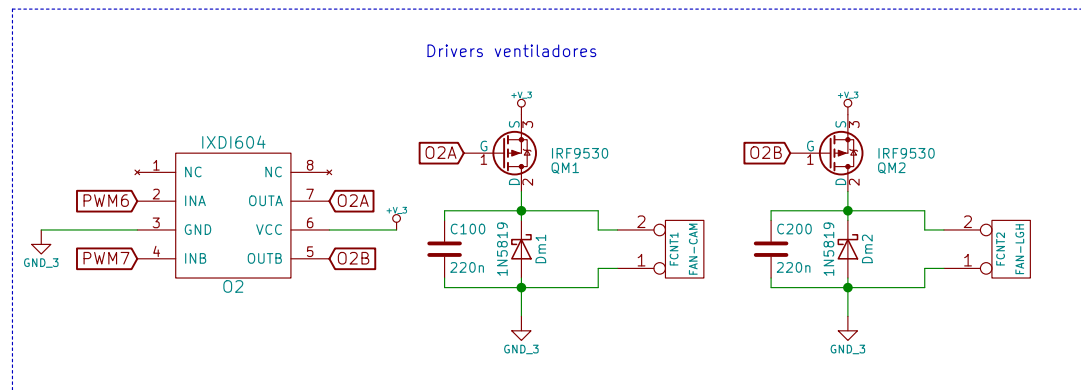
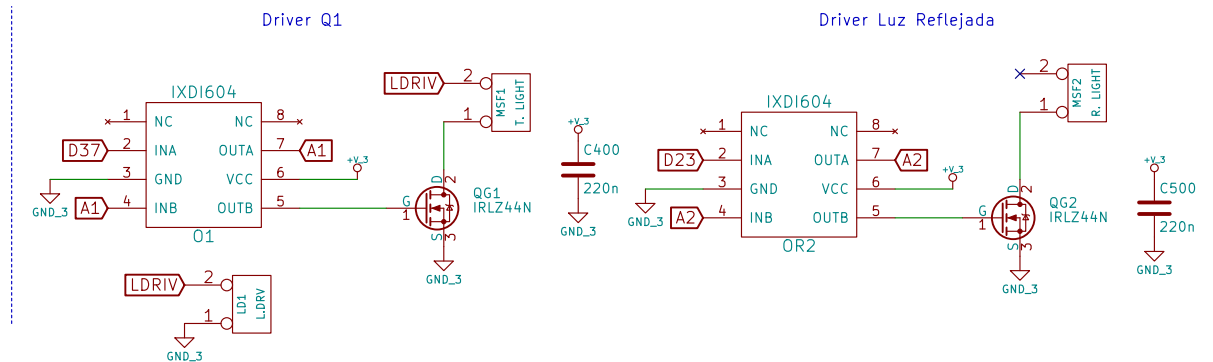
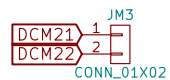
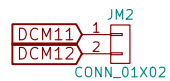
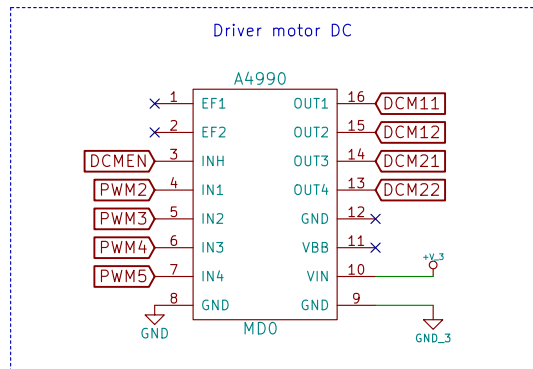
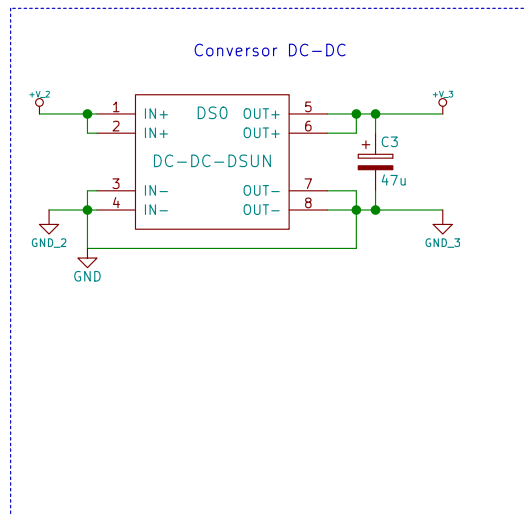
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Rev: v1

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| Sheet: /Endstop Inputs/ File: con_inputs.sch | |
| Title: OneGeo Controller Shield | |
| Size: A4 | Date: 2017-05-11 |
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| | Rev: v1 Id: 7/8 |



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Sheet: /Added by EOST/

File: Added_by_EOST.sch

Title: OneGeo Controller Shield

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| KiCad E.D.A. kicad 4.0.2+dfsg1-stable | |

Rev: v1

Id: 8/8