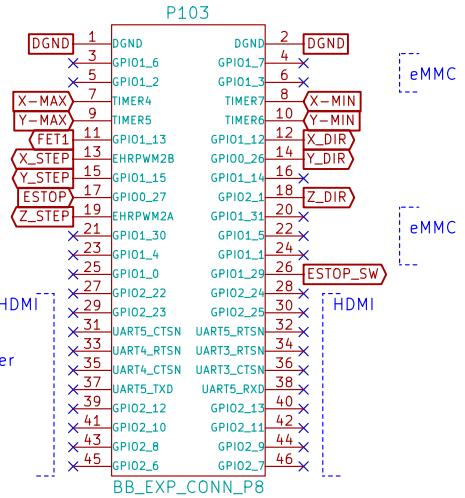
Alternate stacking BeagleBone Headers:
MajorLeague SSHQ-123-D-08-GT-LF
Samtec SSQ-123-03-T-D (Tin)
Samtec SSQ-123-03-G-D (Gold)

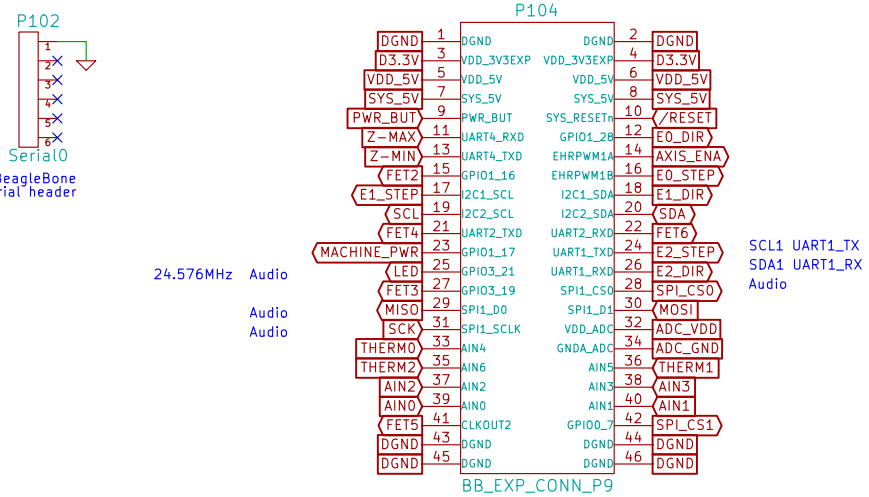
Or use plain pin headers if you do not require additional expansion capes

To save money on all the pin headers when buying parts for a few boards, you can get large breakaway headers instead of the individual parts. You will need a total of:

57 pins of single-row header
74 pins of dual-row header

Which you can get using
(2) Harwin M20-9993645 36-pin single-row header
(2) Harwin M20-9983645 72-pin dual-row header

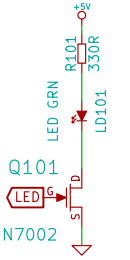


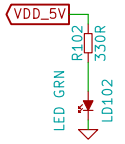


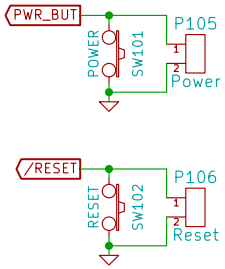
24.576MHz Audio

Audio
Audio

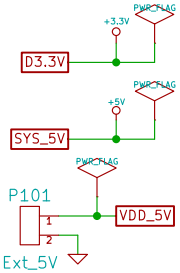
SCL1 UART1_TX
SDA1 UART1_RX
Audio





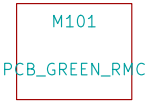


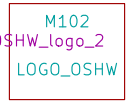
BeagleBone Logic supply is always 3.3V

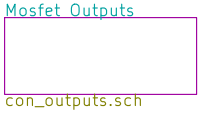


SYS_5V: Low-current supply

VDD_5V: DC Input Jack







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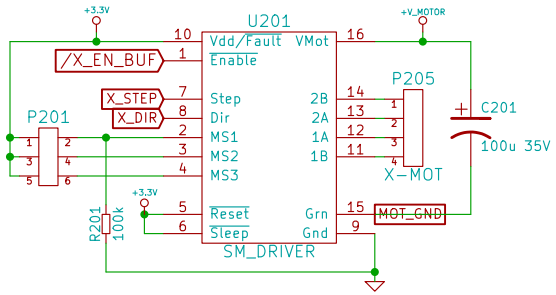
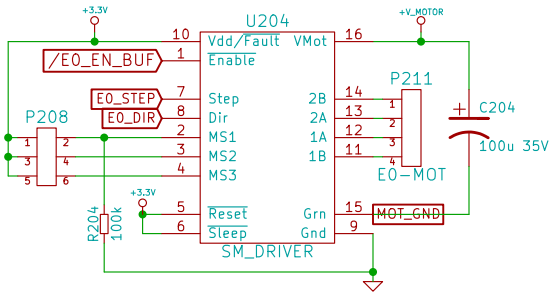
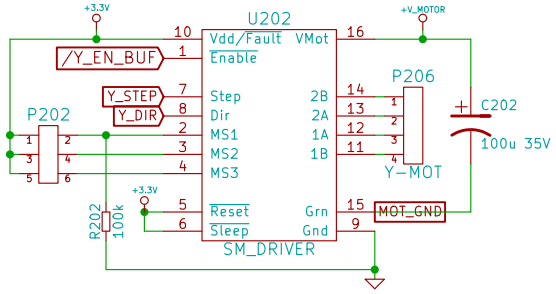
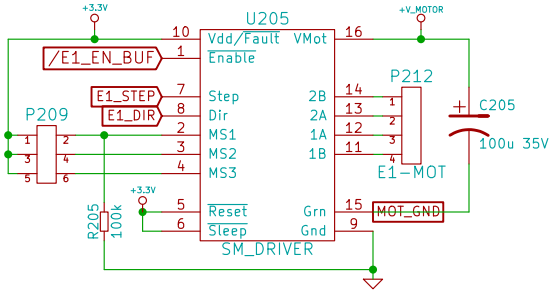
Derived from RAMPS 1.4 reprap.org/wiki/RAMPS1.4

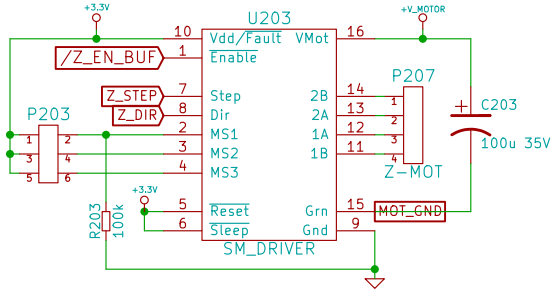
File: CRAMPS.sch		
Sheet: /		
Title: CRAMPS (Cape-RAMPS for BeagleBone)		
Size: A	Date: 25 mar 2014	Rev: v1.0
KiCad E.D.A.		Id: 1/5

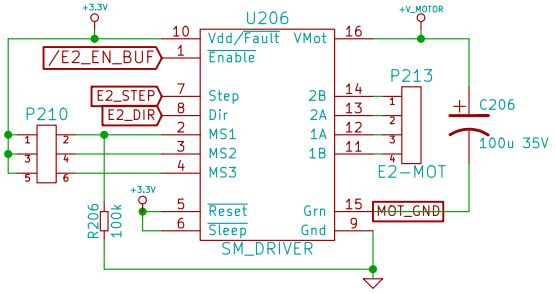


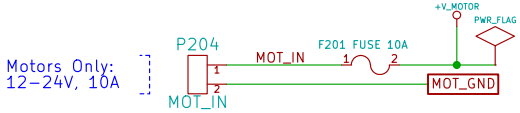












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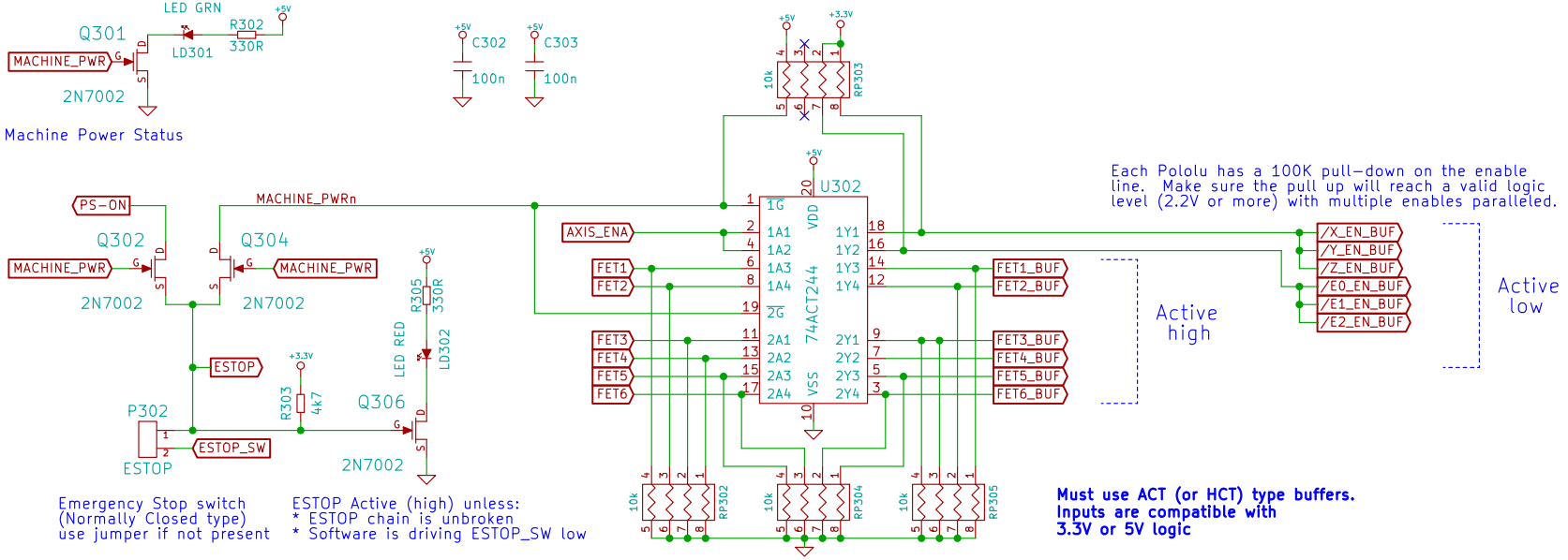
File: steppers.sch
Sheet: /Stepper Drivers/
Title: CRAMPS (Cape-RAMPS for BeagleBone)

Size: A	*Date: 25 mar 2014*	*Rev: v1.0*
KiCad E.D.A.		Id: 2/5



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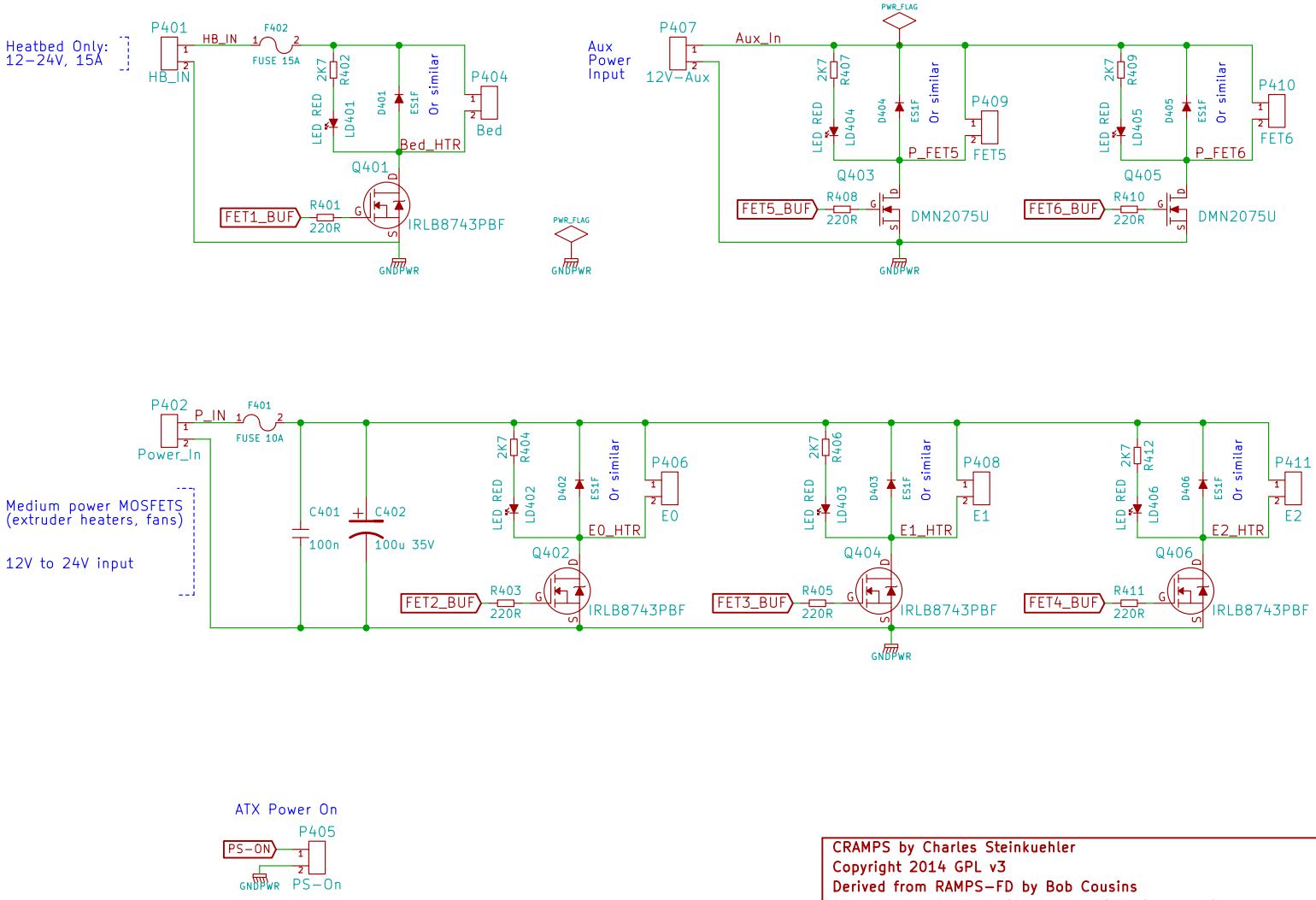
File: e-stop.sch		
Sheet: /Emergency Stop/		
Title: CRAMPS (Cape-RAMPS for BeagleBone)		
Size: A	Date: 25 mar 2014	Rev: v1.0
KiCad E.D.A.		Id: 3/5

MOSFET Outputs

Non-inverting drivers



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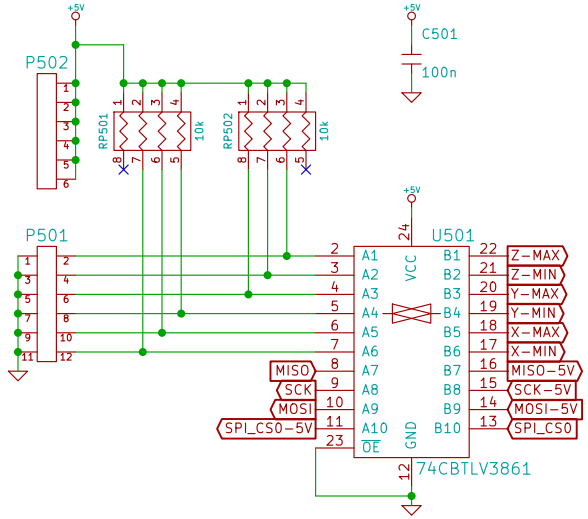
Title: CRAMPS (Cape-RAMPS for BeagleBone)		
Size: A	*Date: 25 mar 2014*	*Rev: v1.0*
KiCad E.D.A.		Id: 4/5

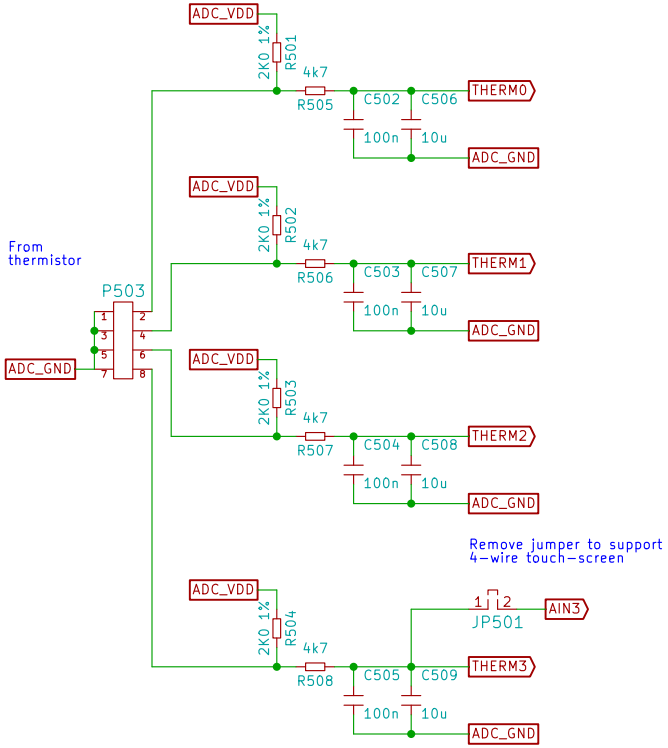
Endstops

Endstop inputs are 5V tolerant

JP701 should be used to enable pullups
for switch type endstops;
remove for active types (e.g opto)



Thermistor Inputs



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File: con_inputs.sch
Sheet: /Inputs/
Title: CRAMPS (Cape-RAMPS for BeagleBone)

Size: A	*Date: 25 mar 2014*	*Rev: v1.0*
KiCad E.D.A.		Id: 5/5