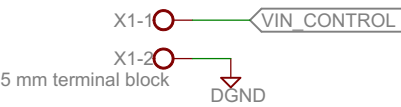


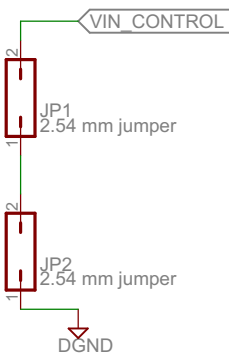
# MAIN LIPO CONTROL INPUT

For round LIPO Holder 2.54 mm connector with screws



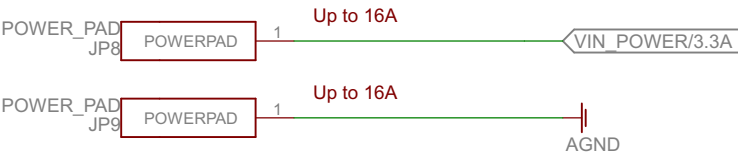
# SECONDARY LIPO CONTROL INPUT

For helicopter LIPOs  
Check 2.54mm pitch into layout



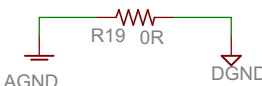
# MAIN LIPO POWER INPUT

Two big PADS to connect two cables  
Up to 10A



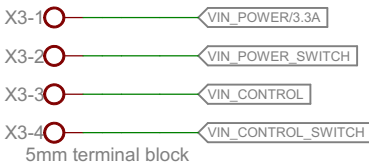
# GNDs

Use R19 or little wire

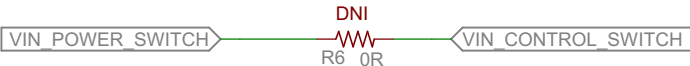


# ON/OFF SWITCH

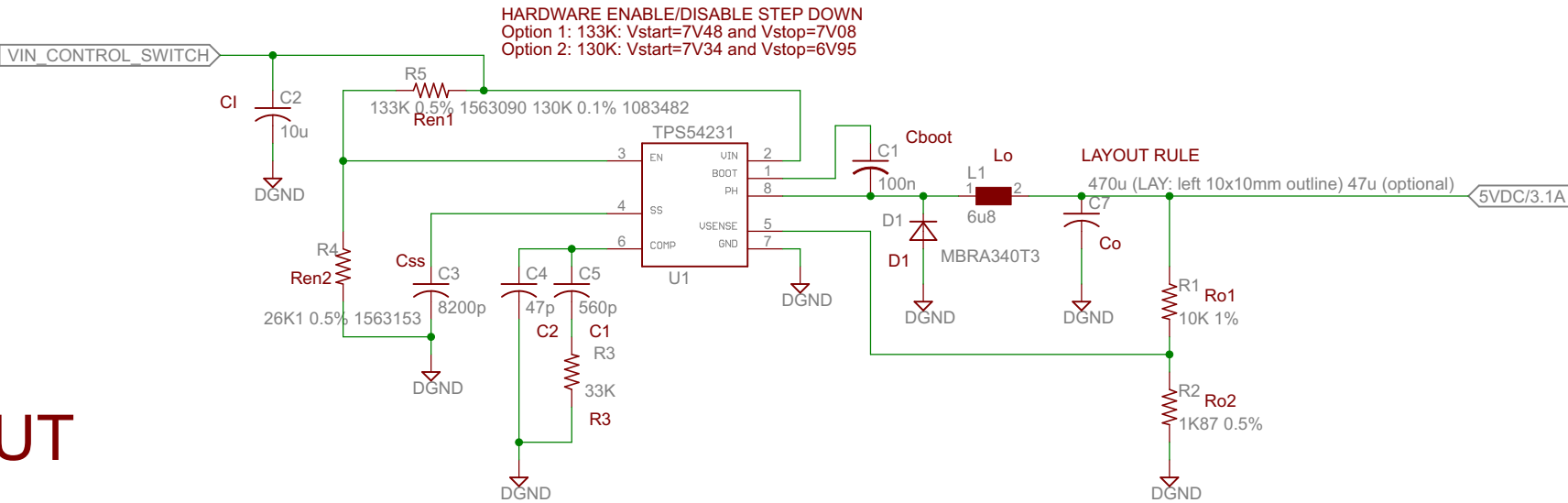
Switch is located at chassis car  
1 and 3 are inputs; 2 and 4 are outputs



Use VIN\_POWER\_SWITCH as VIN\_CONTROL\_SWITCH  
Configuration not used by default

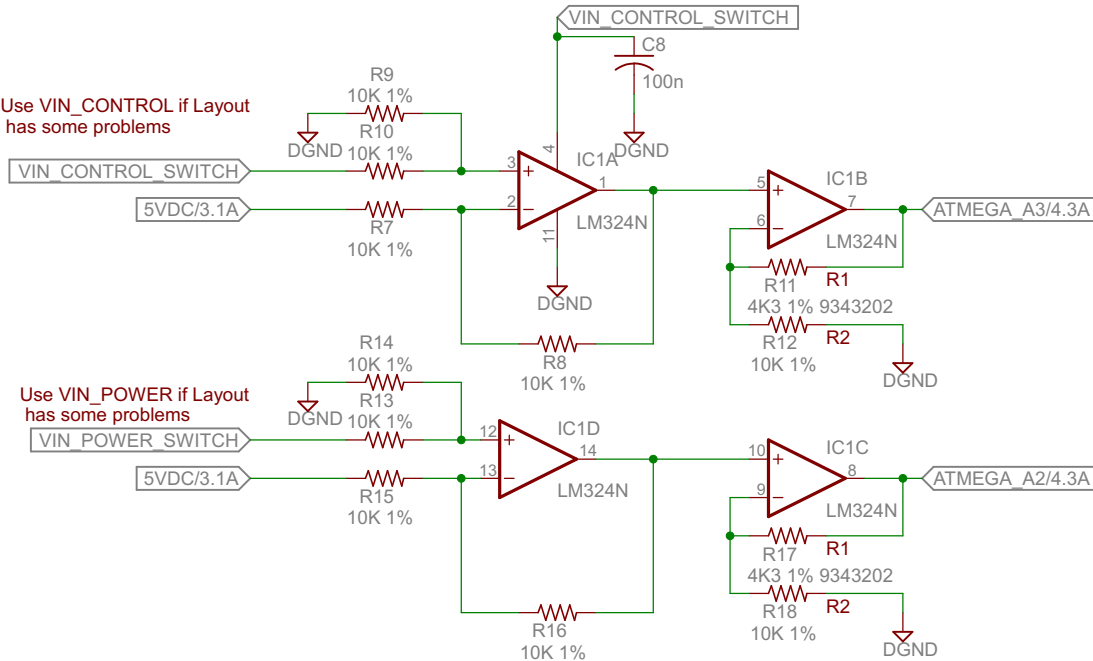


# VIN\_CONTROL\_SWITCH to 5VDC (2A MAX)



# BATTERY VOLTAGE READER

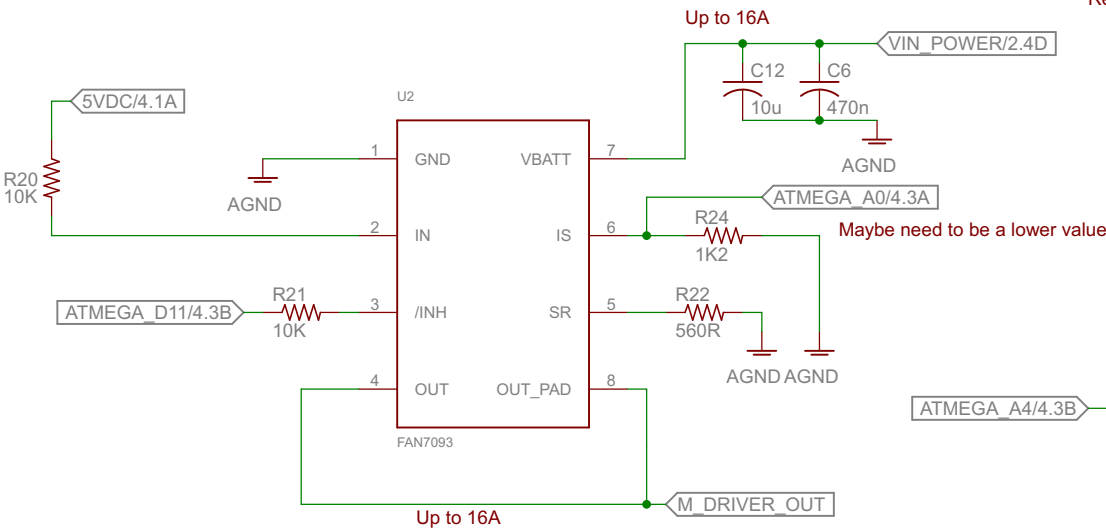
$(VIN\_CONTROL\_SWITCH-5VDC)*(1+R1/R2)=ICBoutput$   
 $(VIN\_POWER\_SWITCH-5VDC)*(1+R1/R2)=ICDoutput$



P01_POWER	
Moonwalker	
15/09/2013 21:50:46	
Sheet: 2/5	

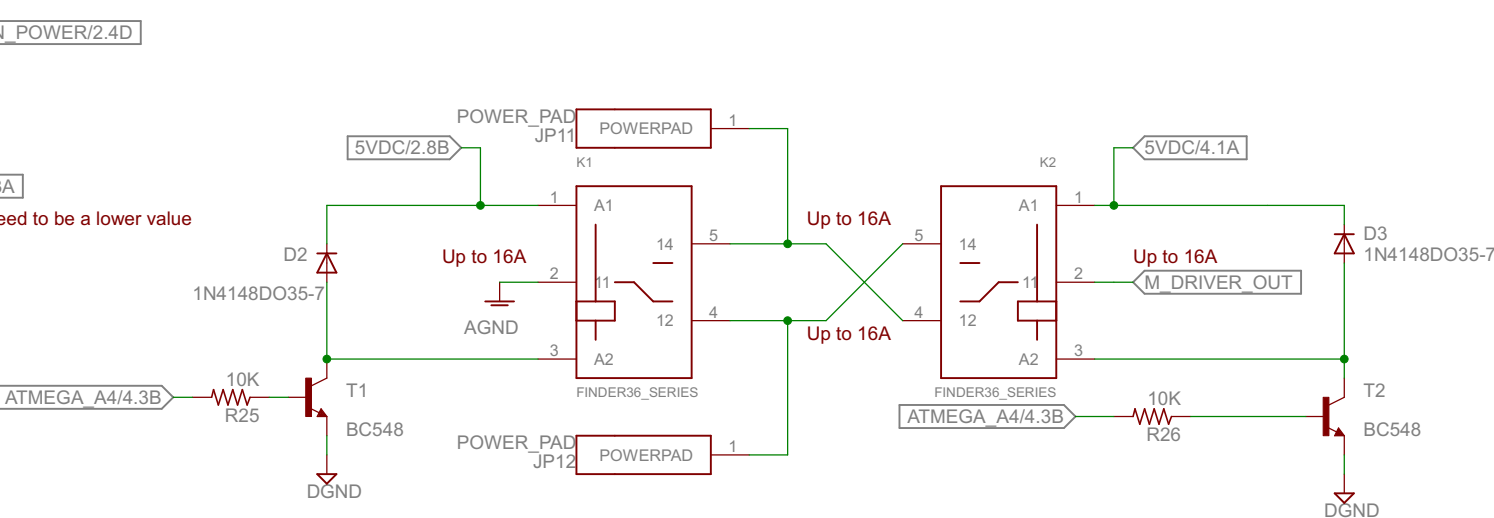
# MOTORs DRIVER

Up to 16A



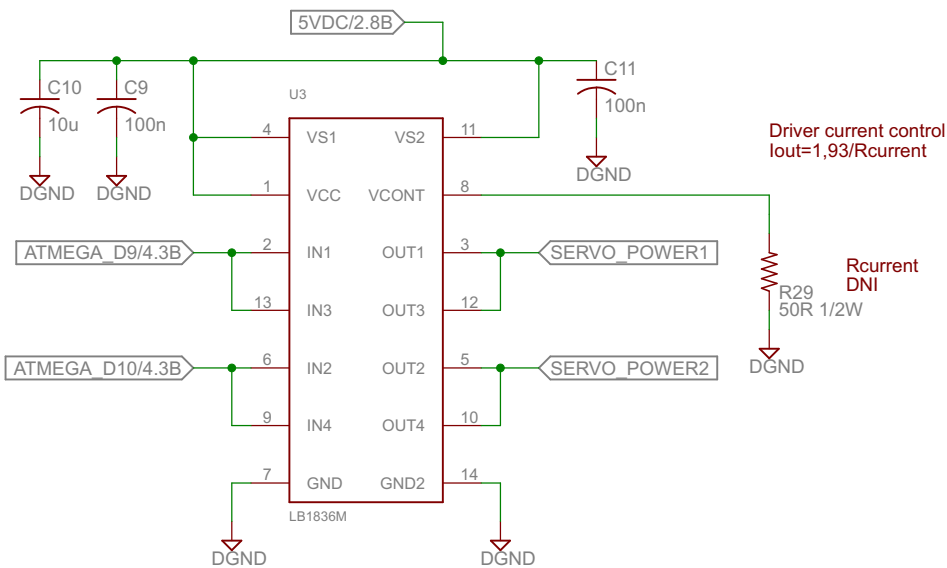
# MOTORs FORWARD/REVERSE and OUTPUTs

Up to 16A  
Relay coil doesn't have polarity

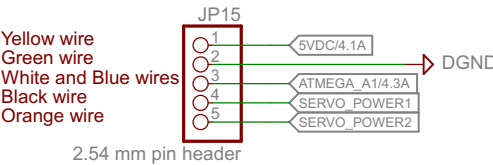


# SERVO DRIVER

Control onboard chasis-servo



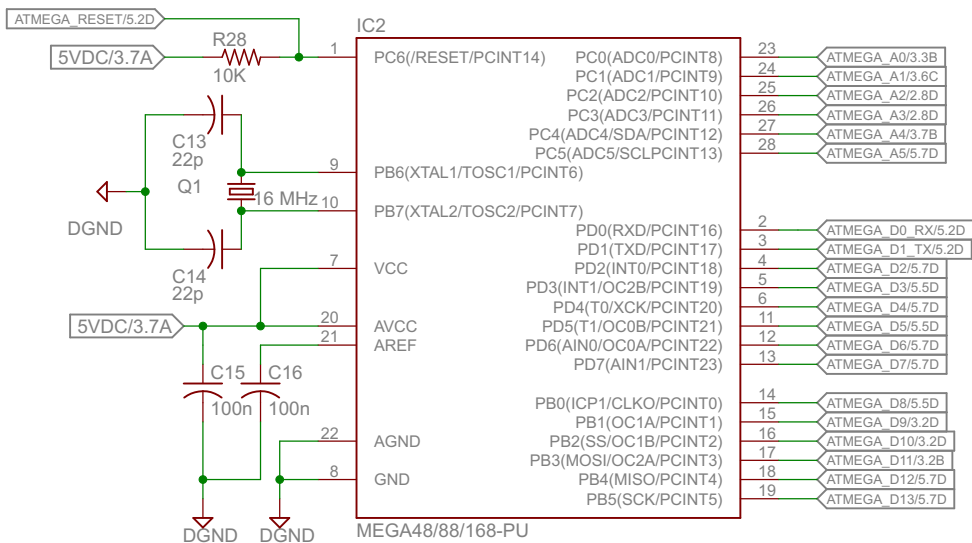
# SERVO OUTPUTs



P02_MOTORs	
Moonwalker	
15/09/2013 21:50:46	
Sheet: 3/5	

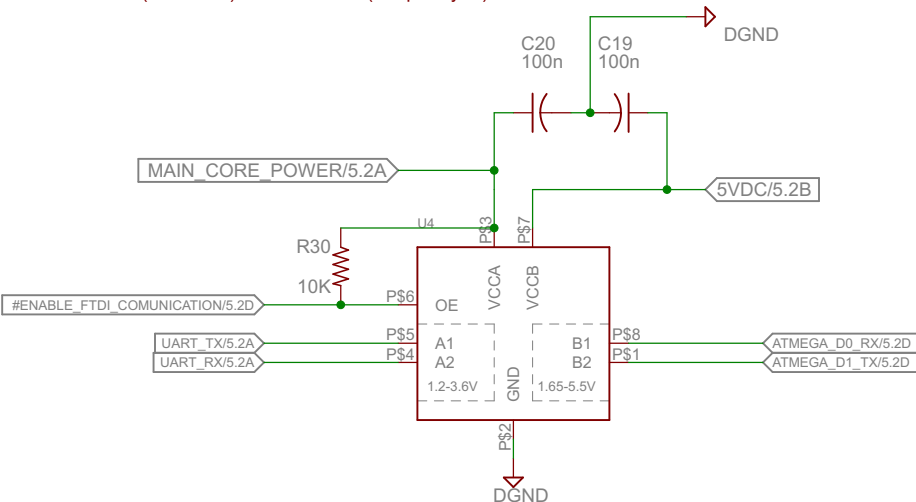
# ATMEGA 8bits

Main core expansion board



# UART communication level translator

5V to 1V8 (IGEP NW) and 5V to 3V3 (Raspberry Pi)

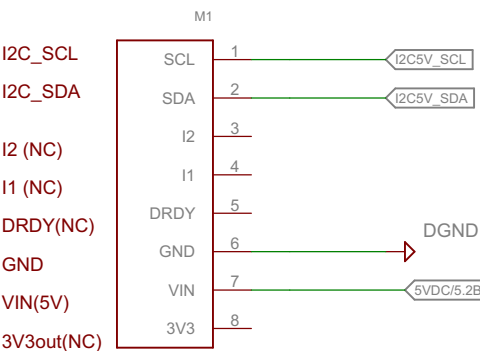
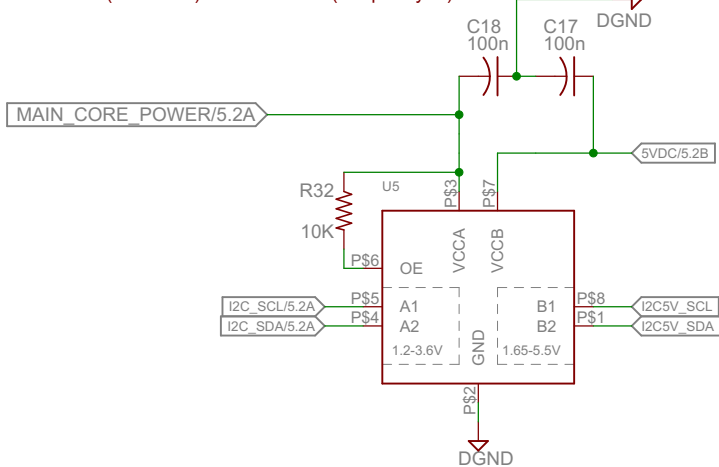


# I2C accelerometer and compass

<http://www.adafruit.com/products/1120>  
Dont connect highest devices near or under module sensor

# I2C communication level translator

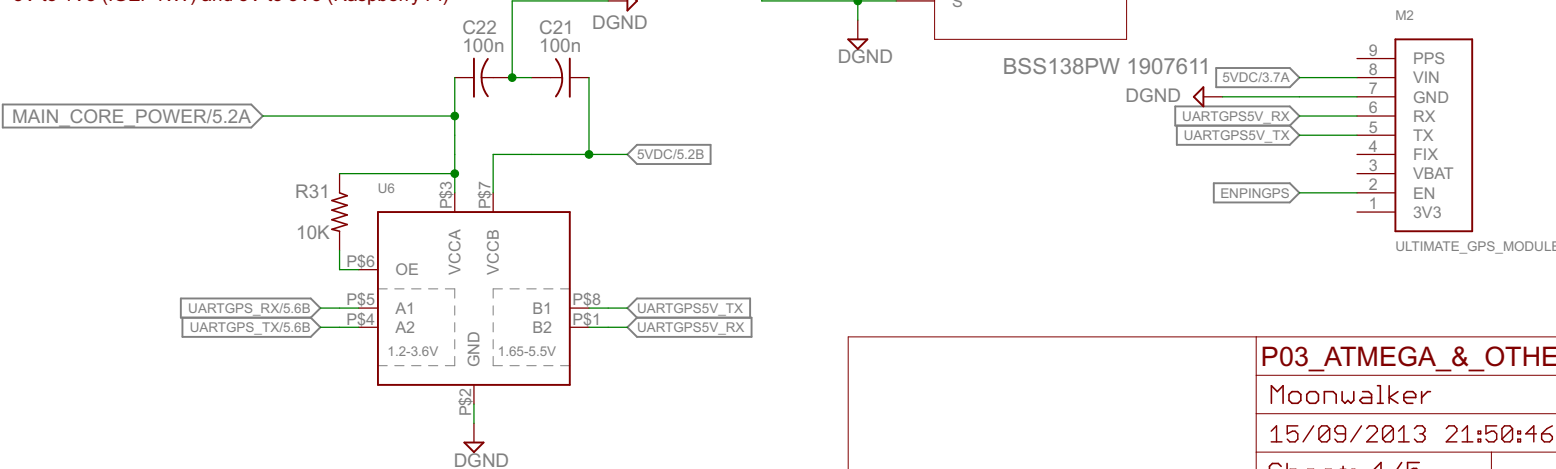
5V to 1V8 (IGEP NW) and 5V to 3V3 (Raspberry Pi)



# UART GPS translator and GPS module

<http://www.adafruit.com/products/746>  
Dont connect highest devices near or under module sensor  
For NY module only

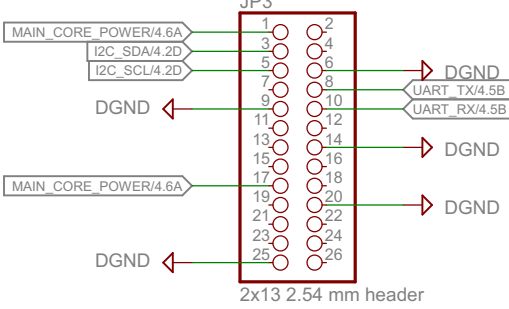
5V to 1V8 (IGEP NW) and 5V to 3V3 (Raspberry Pi)



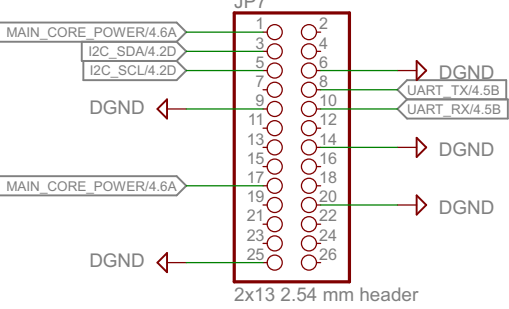
P03_ATMEGA_&_OTHERS	
Moonwalker	
15/09/2013 21:50:46	
Sheet: 4/5	

# RASPBERRY PI HEADERs

Communication and power  
Can be connected only one GND if there are Layout problems  
Can be connected one MAIN\_CORE\_POWER (3V3) if there are layout problems



If there are rasperry pi stabilization problems

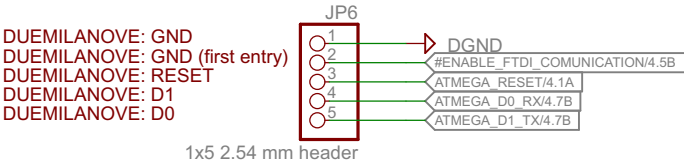


Main power board



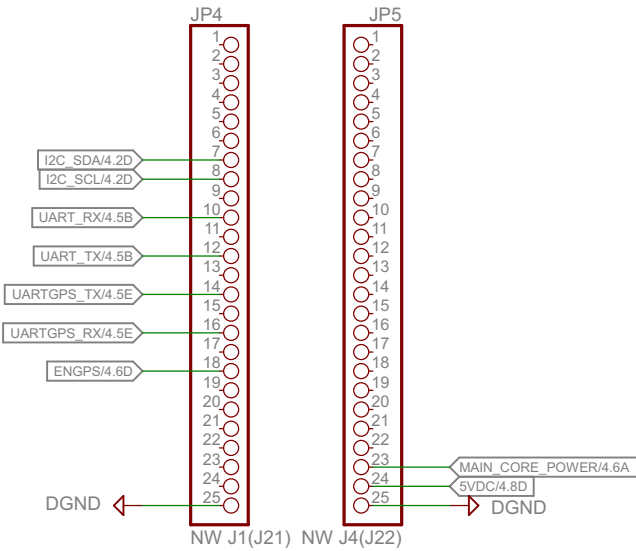
# ATMEGA PROGRAMER HEADER

Use FT232RL (Duemilanove FTDI) and Arduino software  
<http://arduino.cc/en/Tutorial/ArduinoToBreadboard>



# NEW YORK HEADERS

Communication and power  
Respect J1 and J2 distance: 22,8mm  
First six pin can be remove if Layout problems occurred



# ATMEGA HEX SEGMENT DEBUGGER

Use FT232RL (Duemilanove FTDI) and Arduino software  
<http://arduino.cc/en/Tutorial/ArduinoToBreadboard>  
Resistor array value not defined yet. Prove Hex segment before (330R by default)

