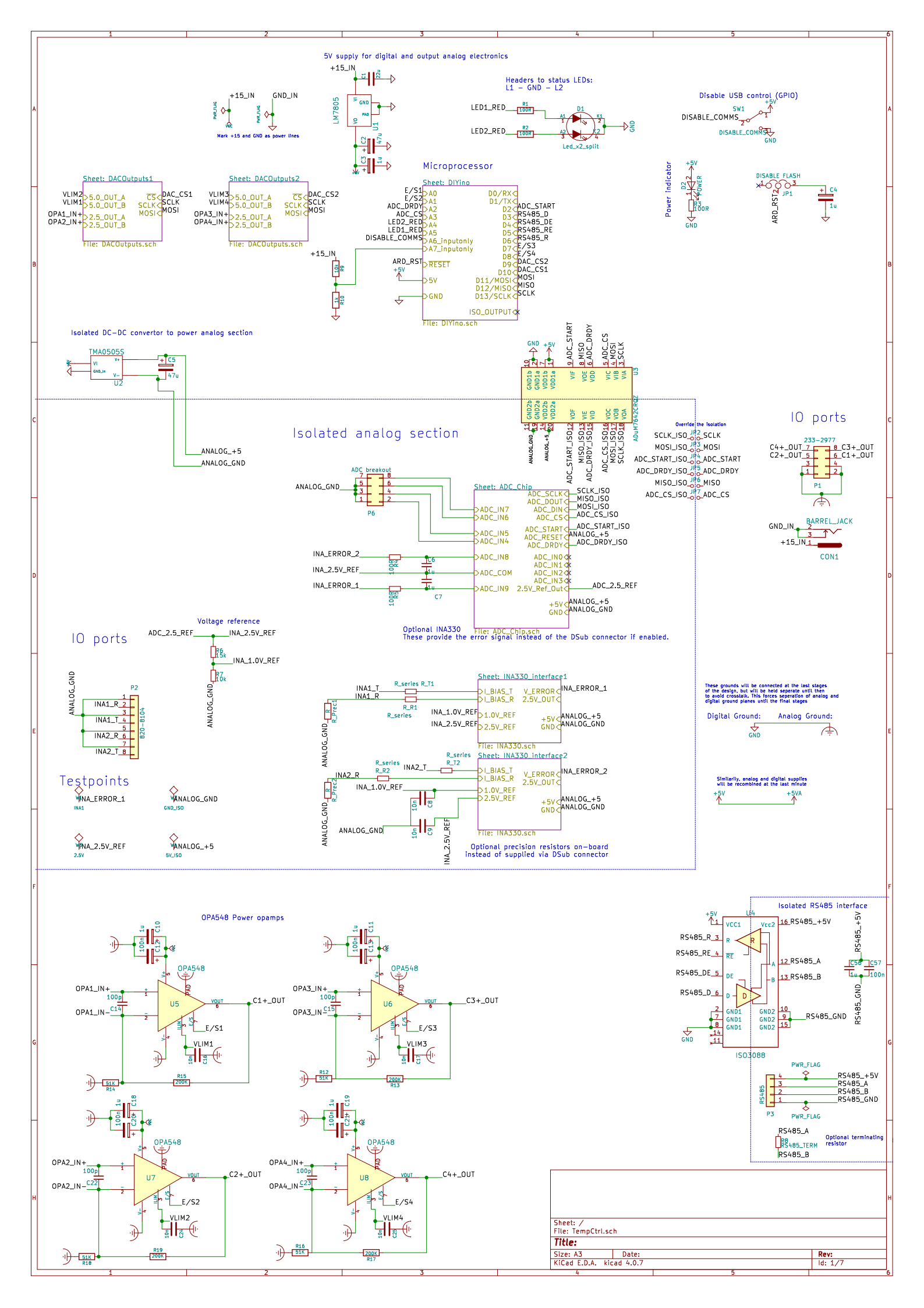
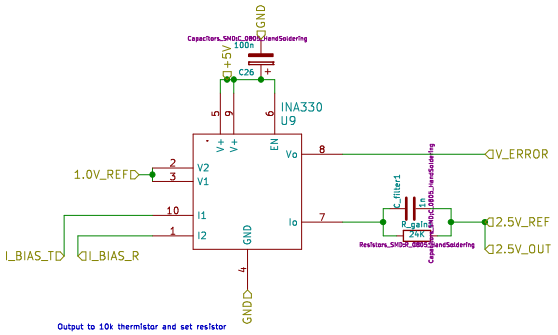
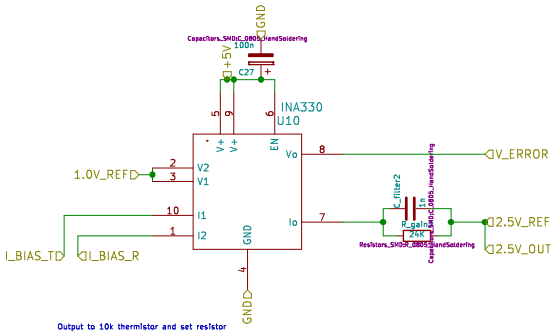

5V supply for digital and output analog electronics
+15_IN
GND_IN
Mark +15 and GND as power lines
LM7805
Headers to status LEDs:
L1 – GND – L2
LED1_RED
LED2_RED
Led_x2_split
Disable USB control (GPIO)
DISABLE_COMMS
Microprocessor
Sheet: DACOutputs1
Sheet: DACOutputs2
File: DACOutputs.sch
Sheet: DIYino
File: DIYino.sch
ISO_OUTPUT
Power indicator
DISABLE FLASH
ARD_RST
Isolated DC–DC convertor to power analog section
TMA0505S
ANALOG_+5
ANALOG_GND
ADuM7640CRQZ
Override the Isolation
Isolated analog section
ADC breakout
Sheet: ADC_Chip
File: ADC_Chip.sch
Optional INA330
These provide the error signal instead of the DSub connector if enabled.
IO ports
Voltage reference
ADC_2.5_REF
INA_2.5V_REF
INA_1.0V_REF
Testpoints
Sheet: INA330_interface1
Sheet: INA330_interface2
File: INA330.sch
Optional precision resistors on–board
instead of supplied via DSub connector
These grounds will be connected at the last stages of the design, but will be held separate until then to avoid crosstalk. This forces seperation of analog and digital ground planes until the final stages
Digital Ground:
Analog Ground:
Similarly, analog and digital supplies will be recombined at the last minute
OPA548 Power opamps
Isolated RS485 interface
ISO3088
Optional terminating resistor
Sheet: /
File: TempCtrl.sch
Title:
Size: A3
Date:
Rev:
KiCad E.D.A. kicad 4.0.7
Id: 1/7

Instrumentation amplifier, optimized for temperature control applications



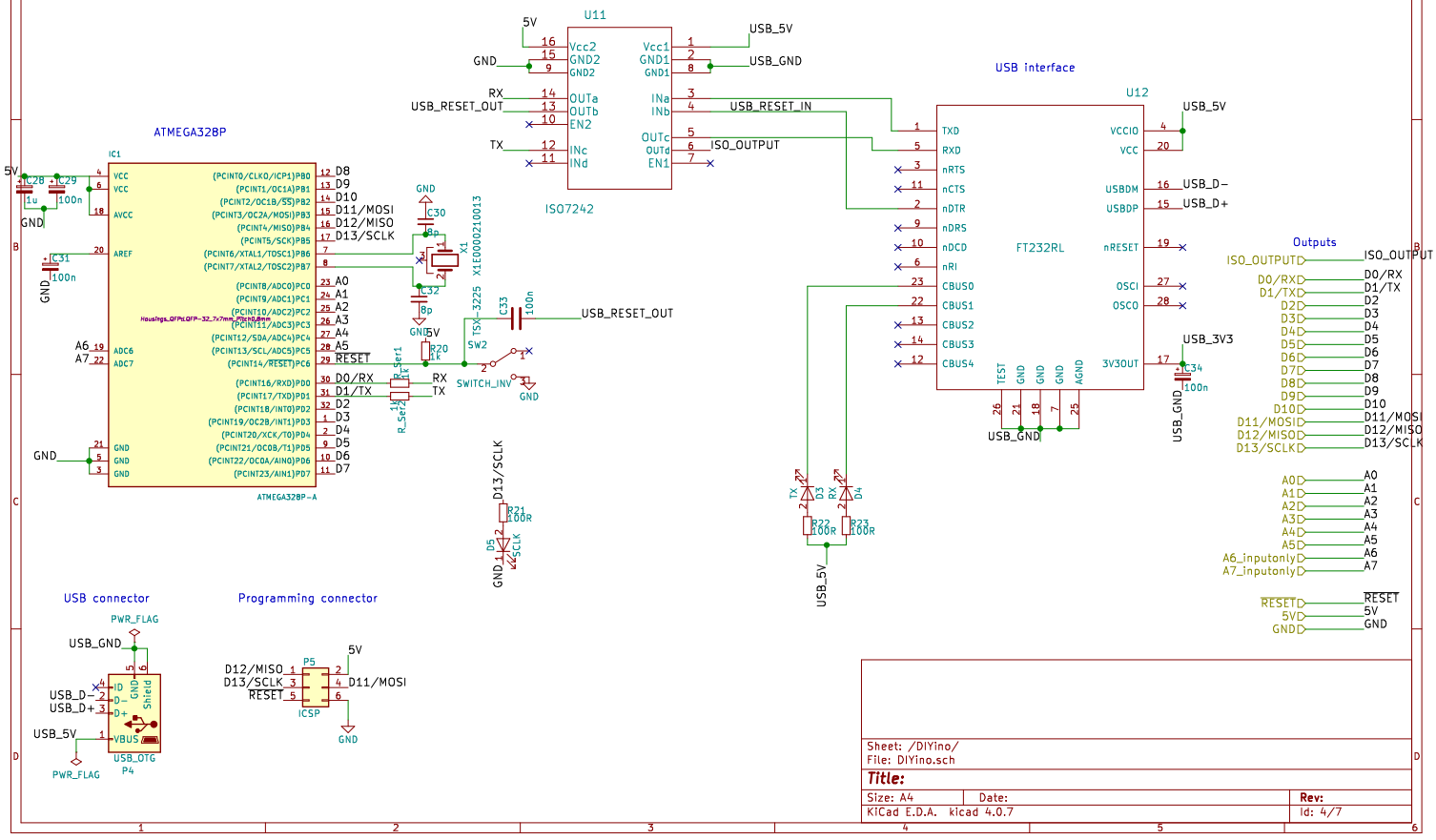
Sheet: /INA330_interface1/		
File: INA330.sch		
Title:		
Size: A4	Date: 11 aug 2015	**Rev:**
KiCad E.D.A. kicad 4.0.7		Id: 2/7

Instrumentation amplifier, optimized for temperature control applications

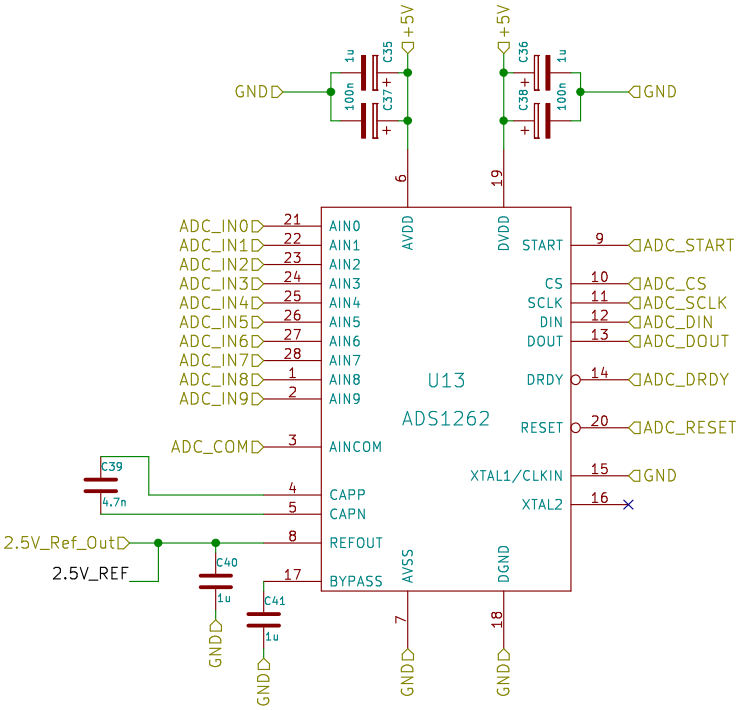


Sheet: /INA330_interface2/		
File: INA330.sch		
Title:		
Size: A4	Date: 11 aug 2015	**Rev:**
KiCad E.D.A. kicad 4.0.7		Id: 3/7

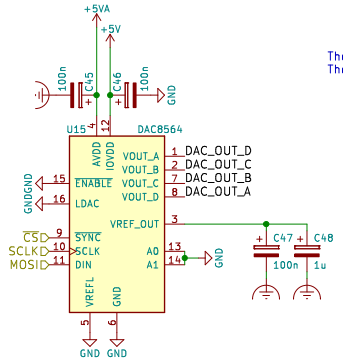
Arduino copycat



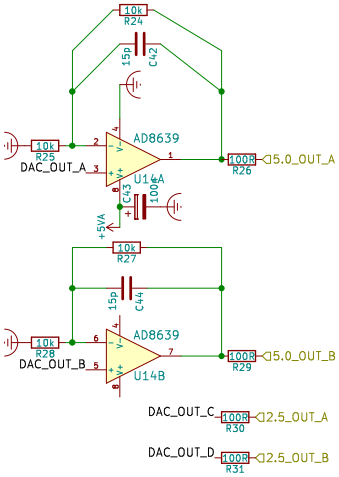
Sheet: /DIYino/		
File: DIYino.sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 4.0.7		Id: 4/7



Sheet: /ADC_Chip/ File: ADC_Chip.sch		
Title:		
Size: A4	Date: 23 oct 2015	**Rev:**
KiCad E.D.A. kicad 4.0.7		Id: 5/7



The DAC can output 0 -> 2.5V
The amplifiers double this to 0 -> 5V



These grounds will be connected at the last stages
of the design, but my be held seperate until then
to avoid crosstalk

Digital Ground:

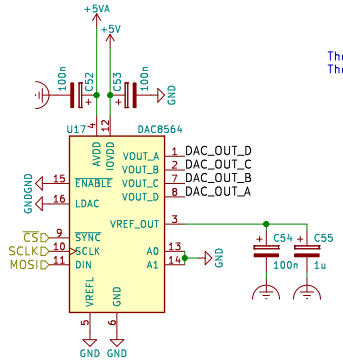
Analog Ground:

Similarily, analog and digital supplies will be recombined at the last minute

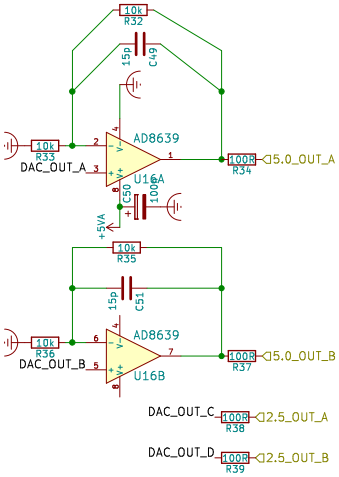
Sheet: /DACOutputs1/
File: DACOutputs.sch

Title:

Size: A4	Date:	Rev:
KiCad E.D.A. kicad 4.0.7		Id: 6/7



The DAC can output 0 -> 2.5V
The amplifiers double this to 0 -> 5V



These grounds will be connected at the last stages
of the design, but my be held seperate until then
to avoid crosstalk

Digital Ground:

Analog Ground:

Similarily, analog and digital supplies will be recombined at the last minute

Sheet: /DACOutputs2/
File: DACOutputs.sch

Title:

Size: A4	Date:	Rev:
KiCad E.D.A. kicad 4.0.7		Id: 7/7