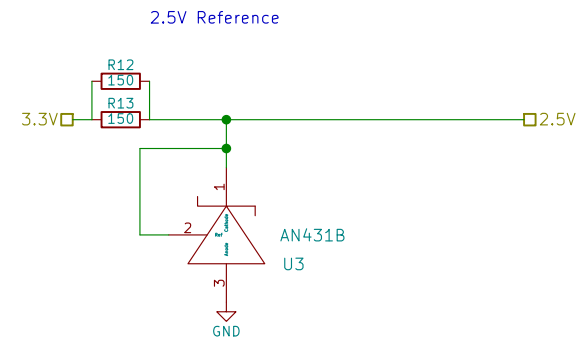
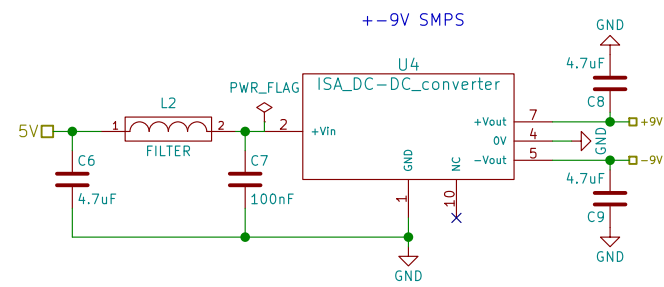
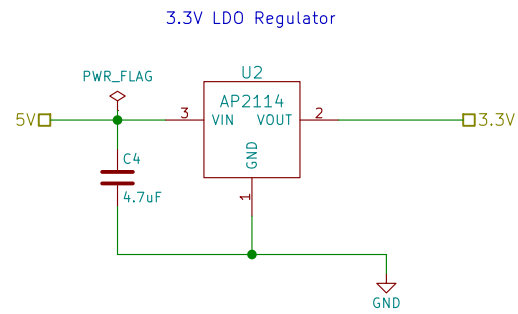
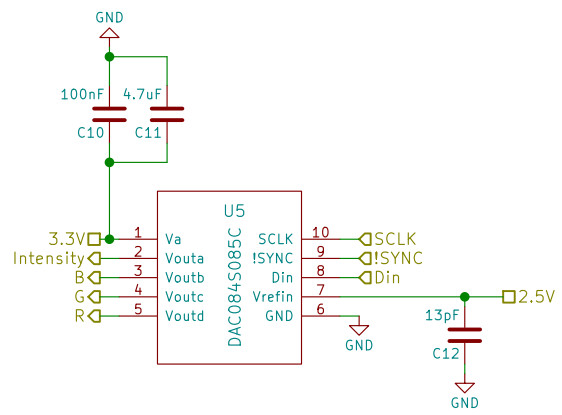


Sheet: /	
File: Helios.sch	
<b>Title: Main</b>	
Size: A4	Date: 2016-04-11
KiCad E.D.A. kicad 4.0.7	Rev: A
	Id: 1/5



Shunt reference is UNSTABLE when bypassed with  $10^3$  to  $10^6$  pF so 100nF can't be used alone

Sheet: /Power Regulation/		Date:	
File: Power.sch		Rev: A	
<b>Title: Power Supplies</b>		Id: 2/5	
Size: A4	KiCad E.D.A. kicad 4.0.7		



Sheet: /DAC/  
 File: DAC.sch

**Title: Digital to Analog Converter**

Size: A4

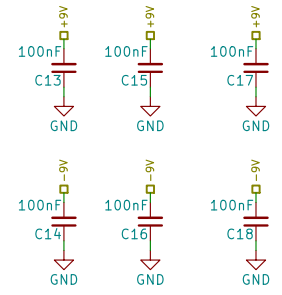
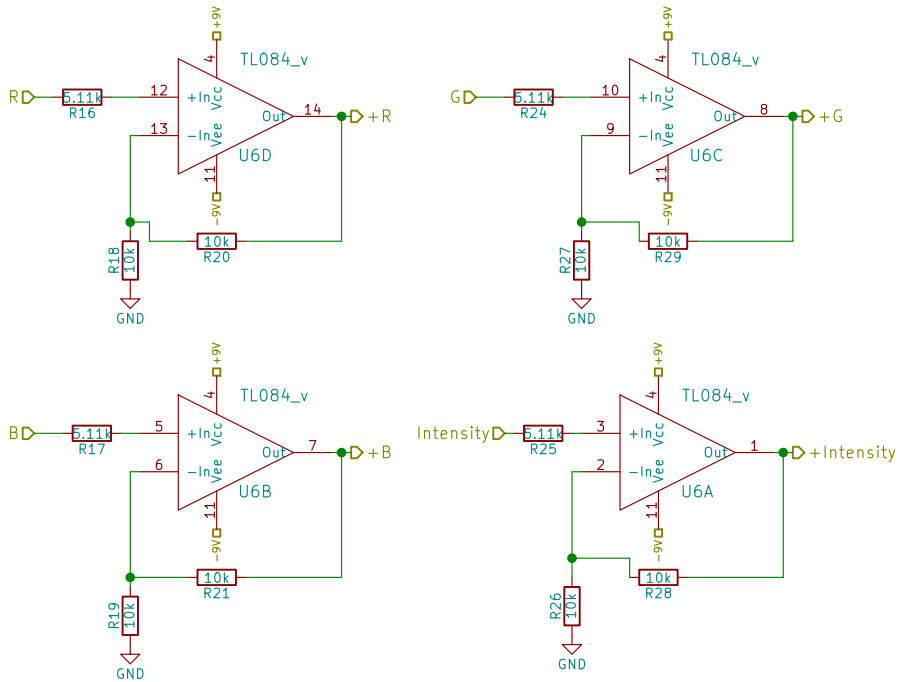
Date:

Rev: A

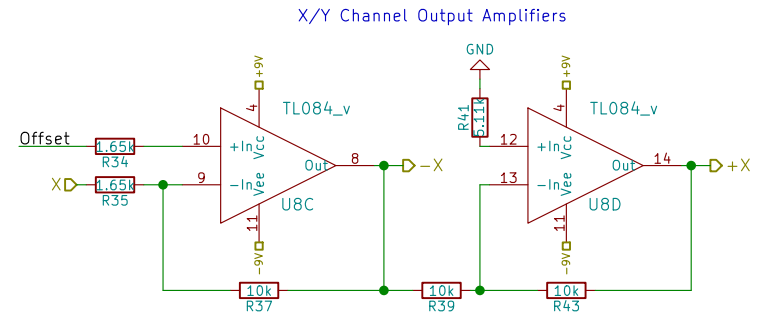
KiCad E.D.A. kicad 4.0.7

Id: 3/5

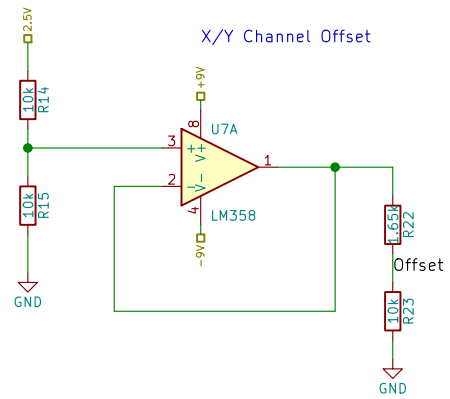
Decoupling caps, place as close to opamps as possible, ceramic



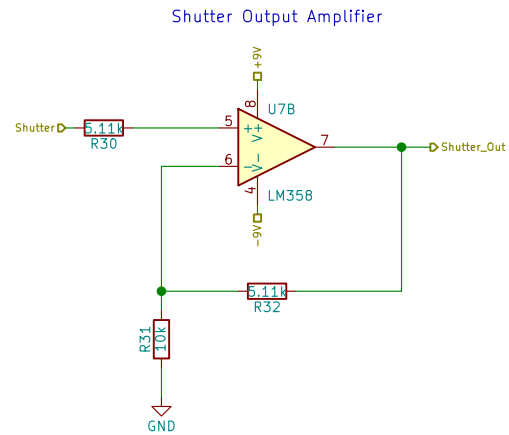
Colour and Intensity channels



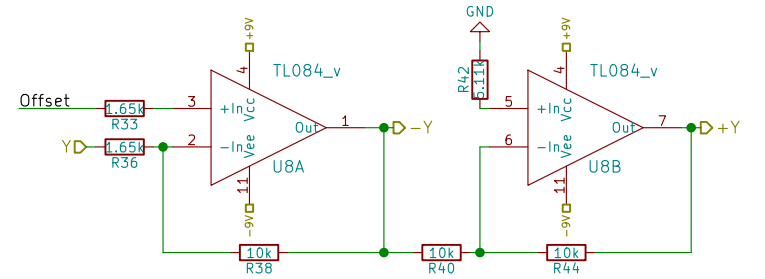
X/Y Channel Output Amplifiers



X/Y Channel Offset



Shutter Output Amplifier



Sheet: /Amplifiers/  
File: Amplifiers.sch

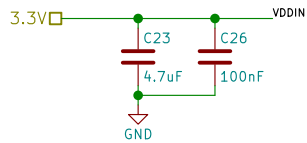
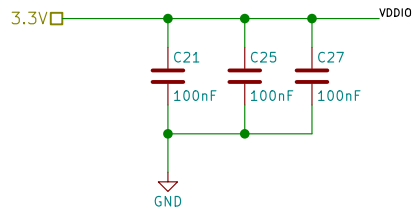
**Title: Amplifiers**

Size: A4  
KiCad E.D.A. kicad 4.0.7

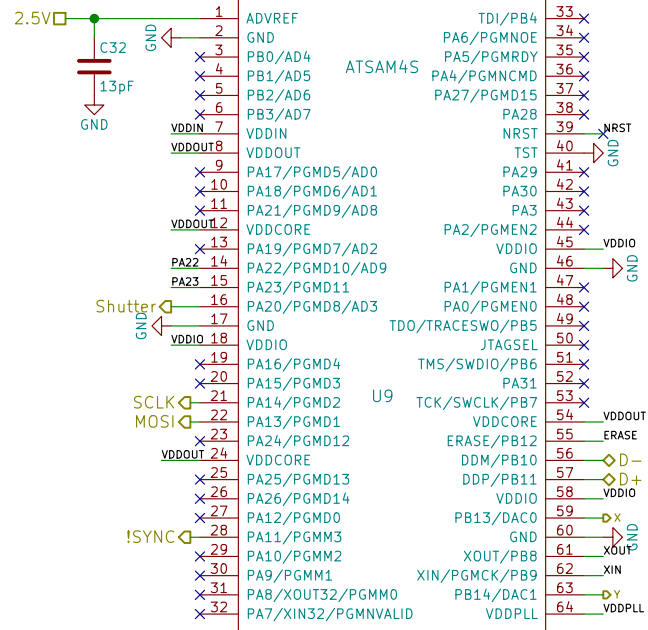
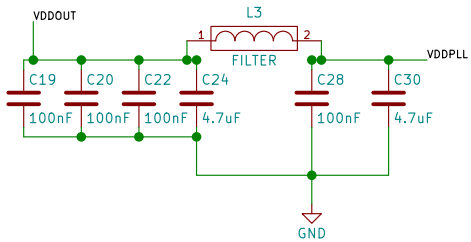
Date:

Rev: A

Id: 4/5

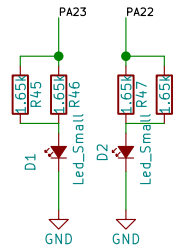
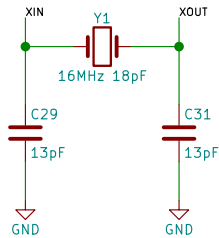
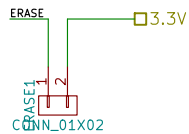


VDDOUT shorts to VDDCORE, cap on each pin



### Status LEDs

Erase pins, short these to erase program then reset



Sheet: /Microcontroller/  
File: Microcontroller.sch

### Title: Microcontroller

Size: A4  
KiCad E.D.A. kicad 4.0.7

Date:

Rev: A

Id: 5/5