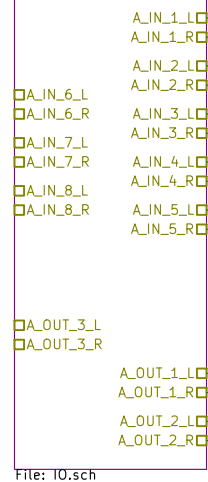
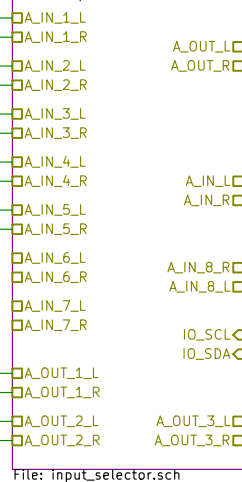


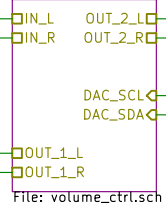
Sheet: IO



Sheet: input selector



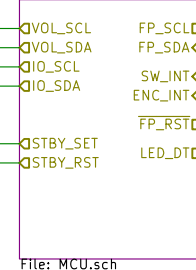
Sheet: Volume Control



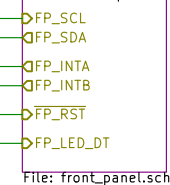
Sheet: headphone_amp



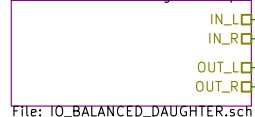
Sheet: MCU



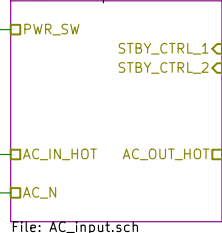
Sheet: front panel



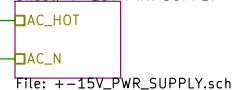
Sheet: Balanced daughter IO pcb



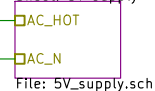
Sheet: AC input



Sheet: +-15V PWR SUPPLY



Sheet: 5V supply



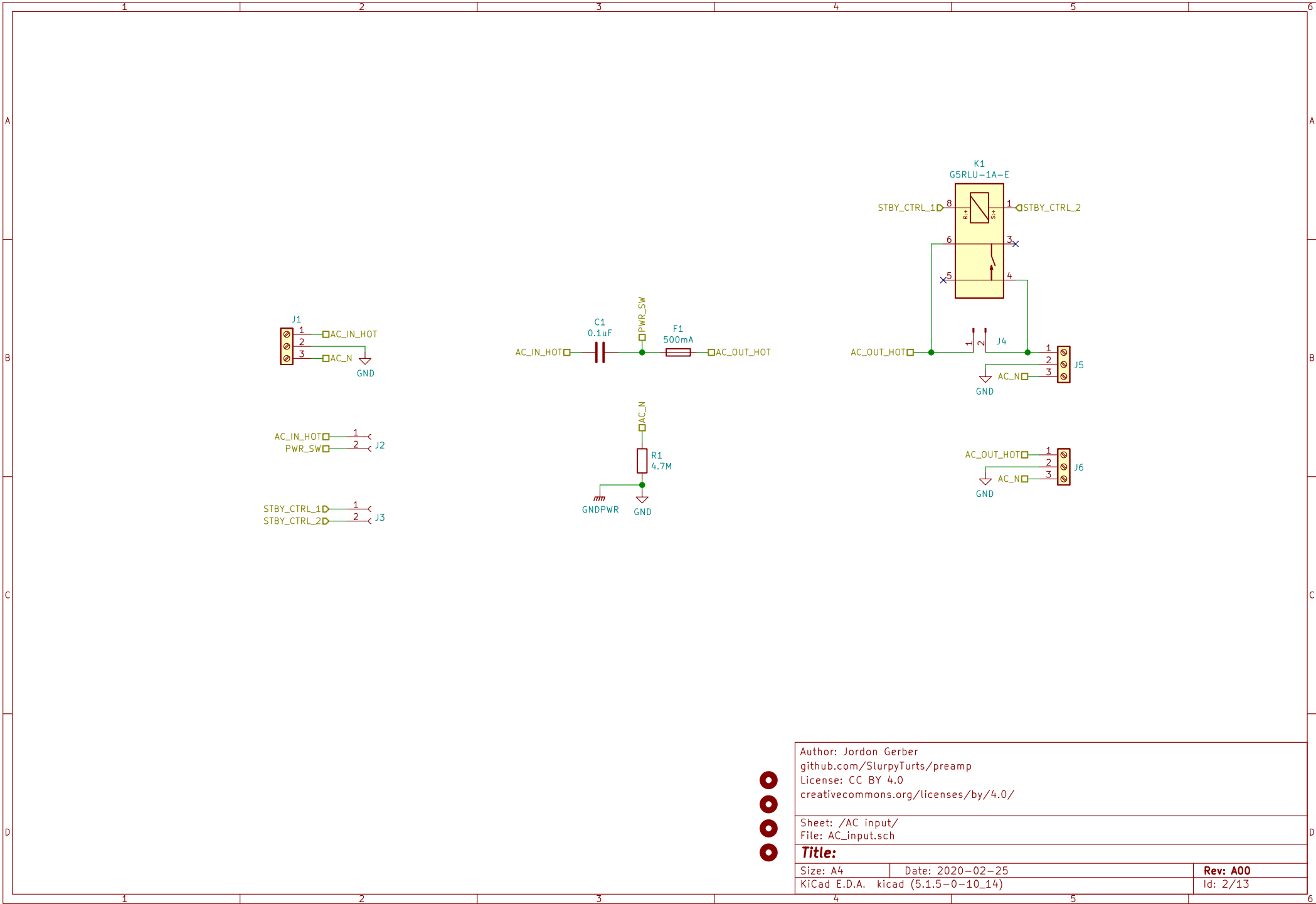
Author: Jordan Gerber
github.com/SlurpyTurts/preamp
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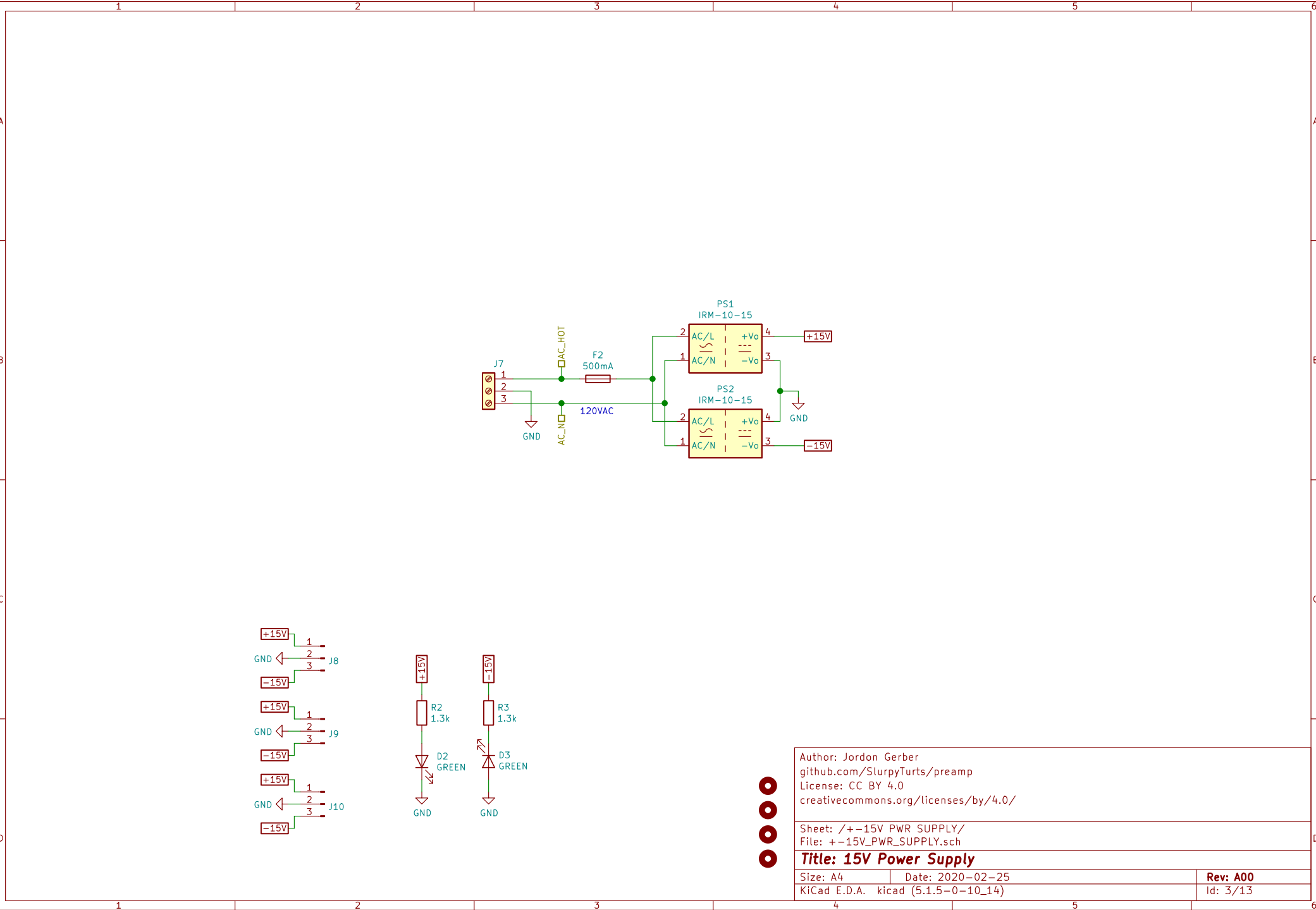
Sheet: /
 File: preamp.sch

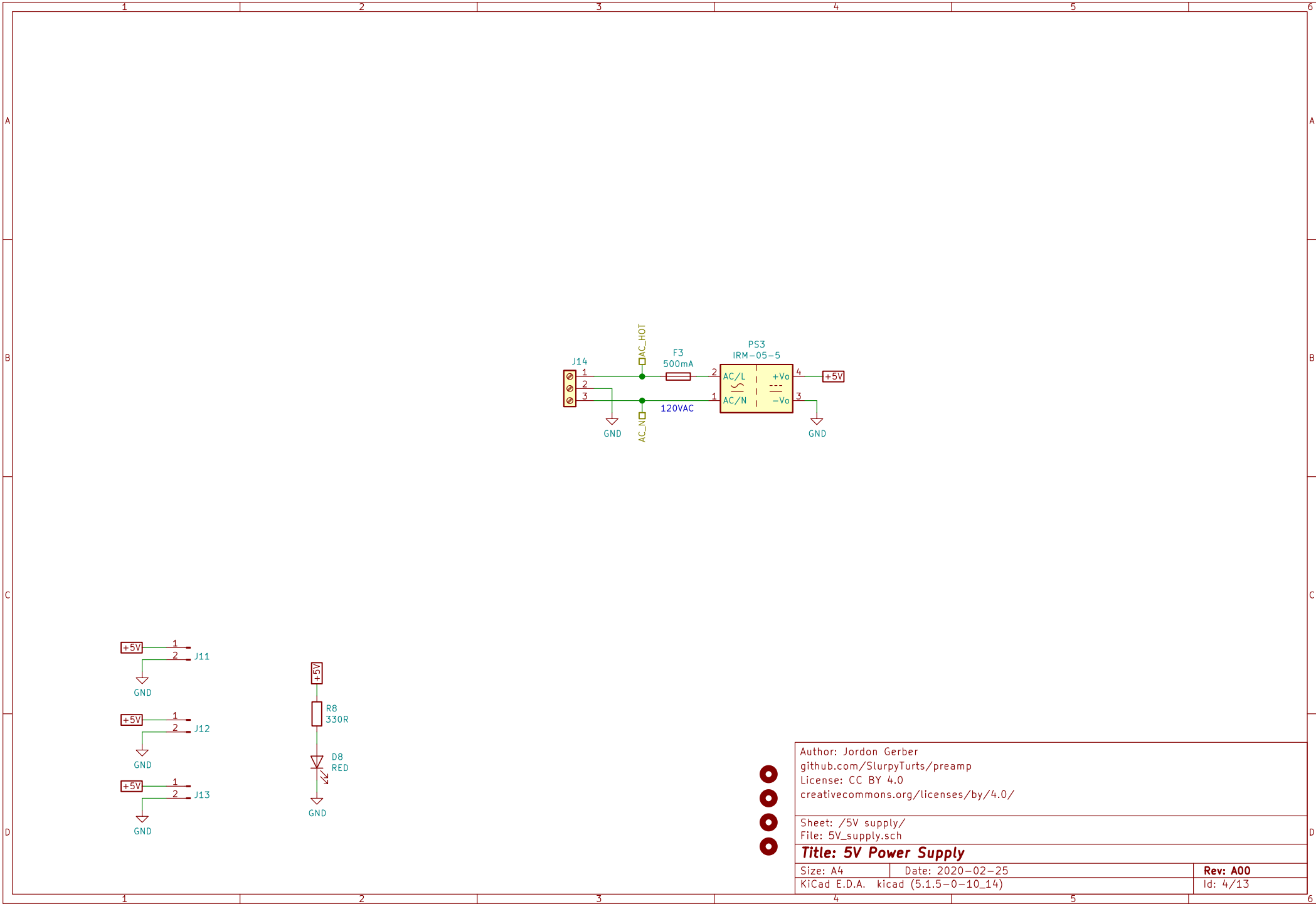
Title: Preamp

Size: A4 Date: 2020-02-25
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Sheet: /5V supply/
File: 5V_supply.sch

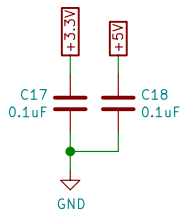
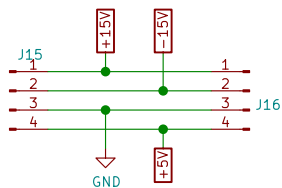
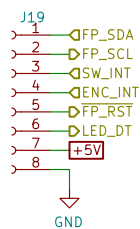
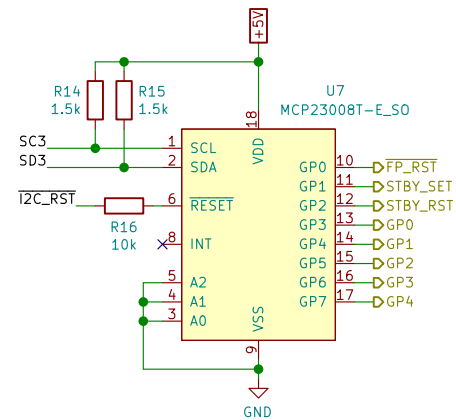
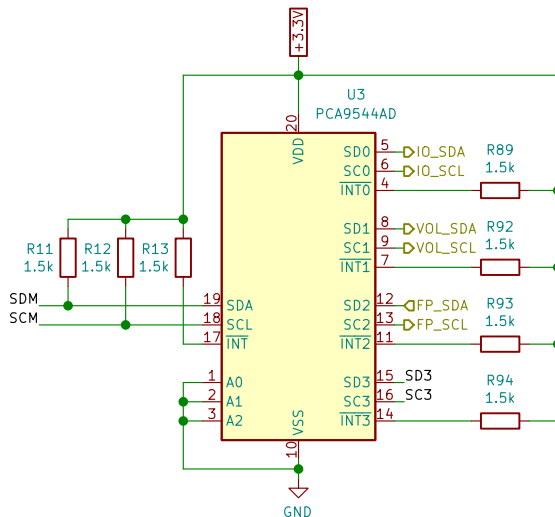
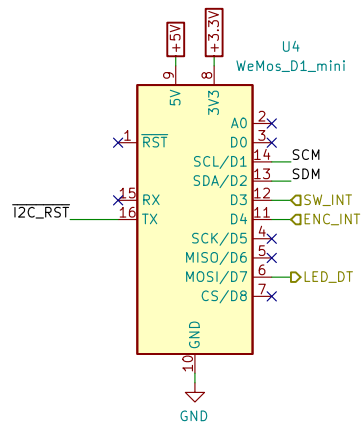
Title: 5V Power Supply

Size: A4 Date: 2020-02-25

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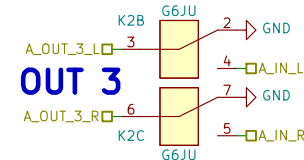
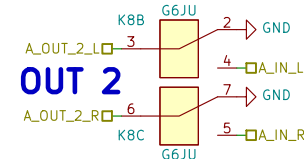
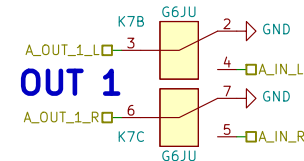
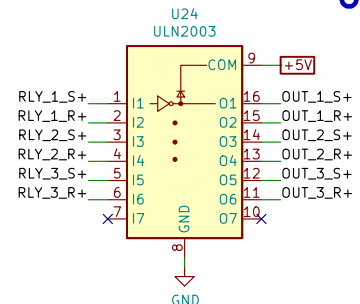
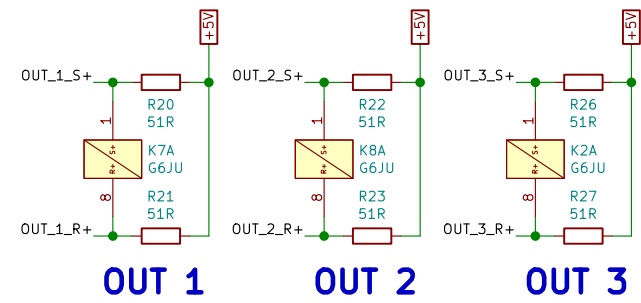
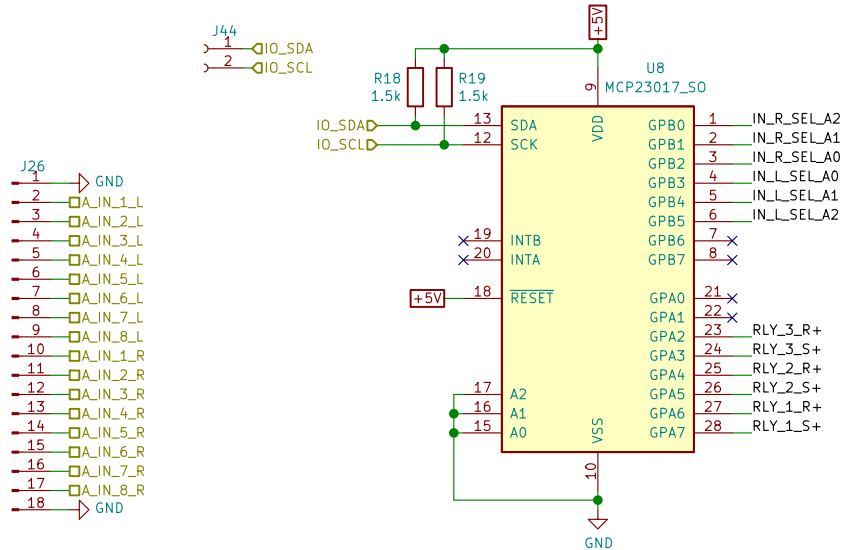
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Sheet: /MCU/
 File: MCU.sch

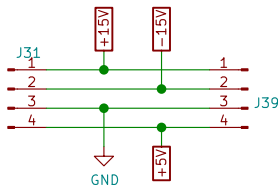
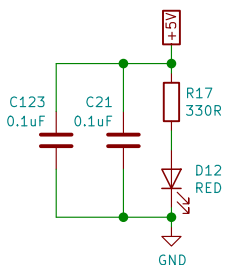
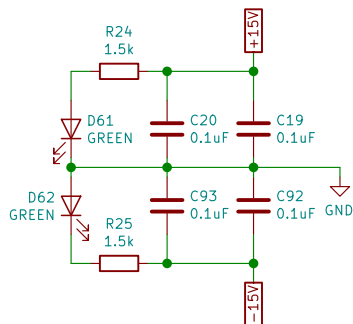
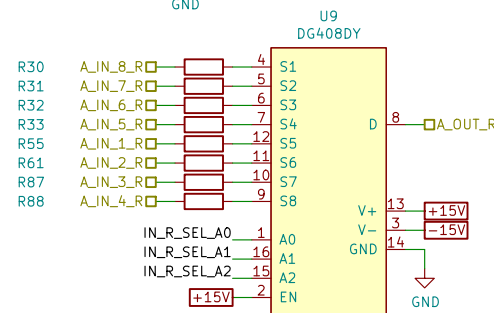
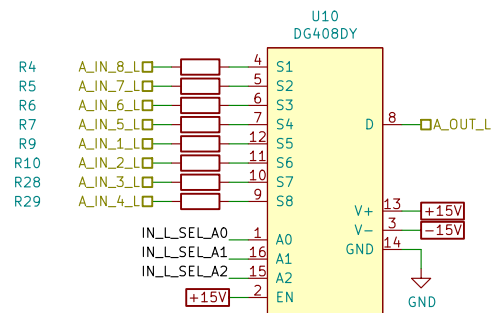
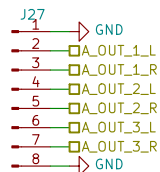
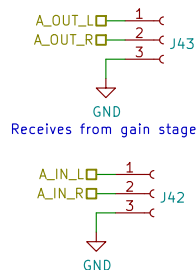
Title: Preamp MCU Board

Size: A4 Date: 2020-02-25
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Sends to amp / tone / etc



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Sheet: /input selector/
 File: input_selector.sch

Title: IO Relay Select Board

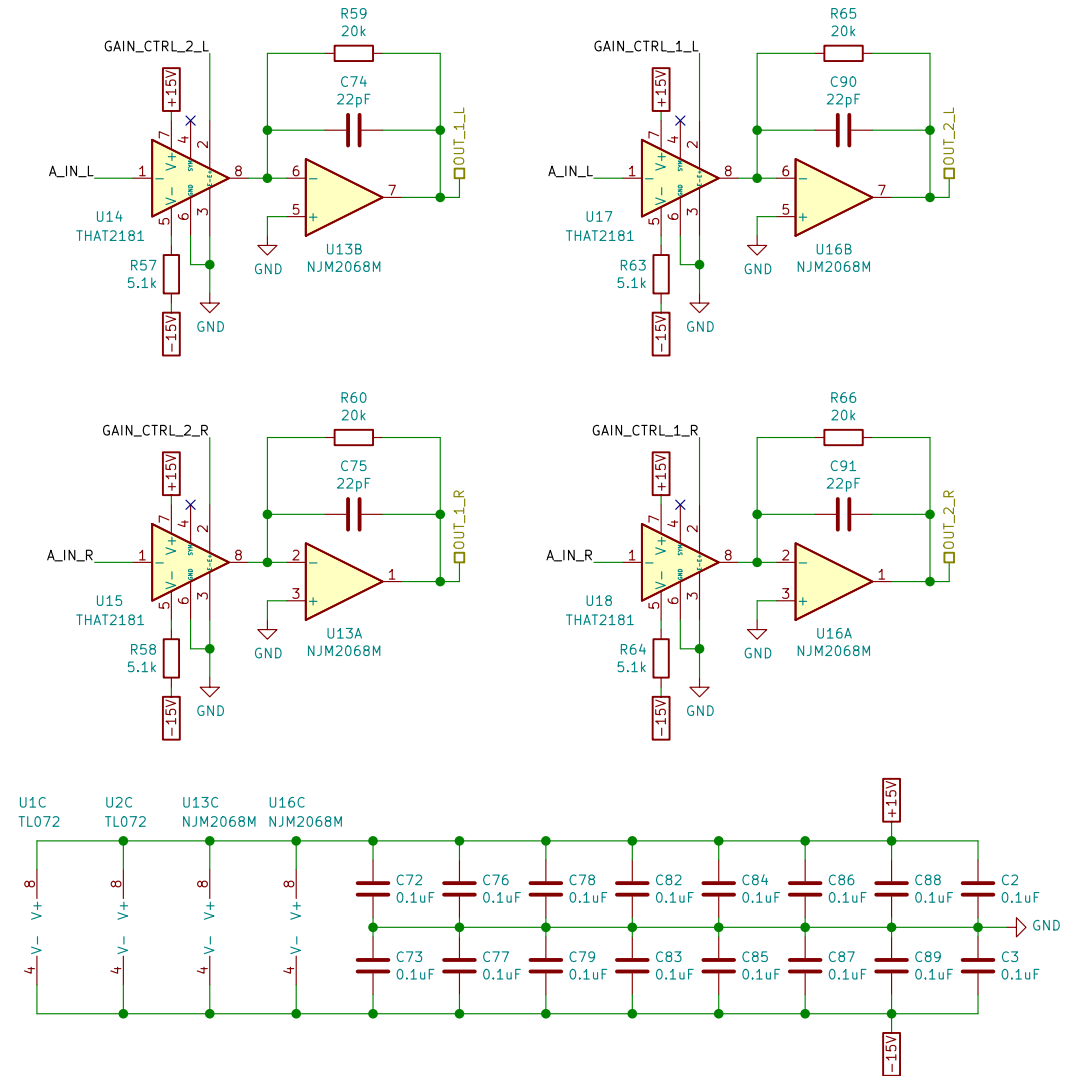
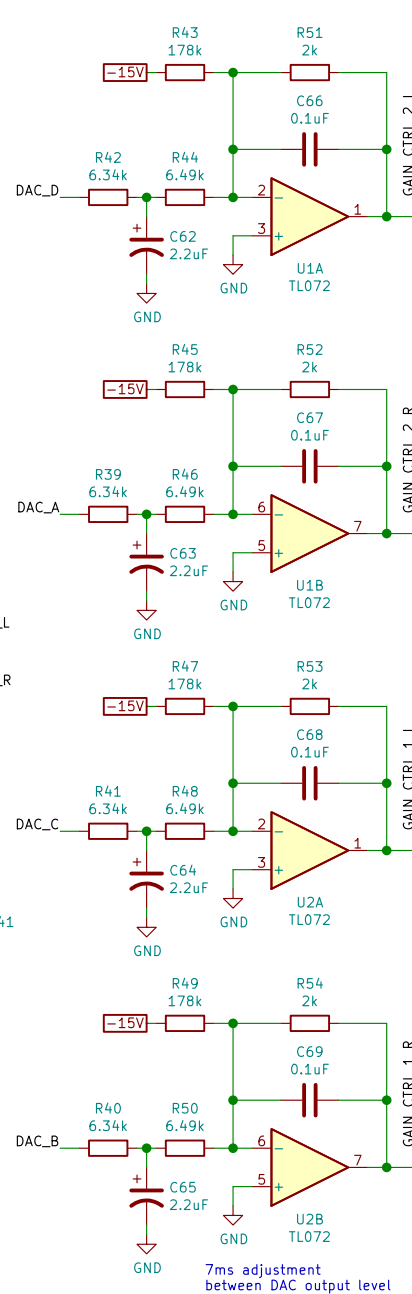
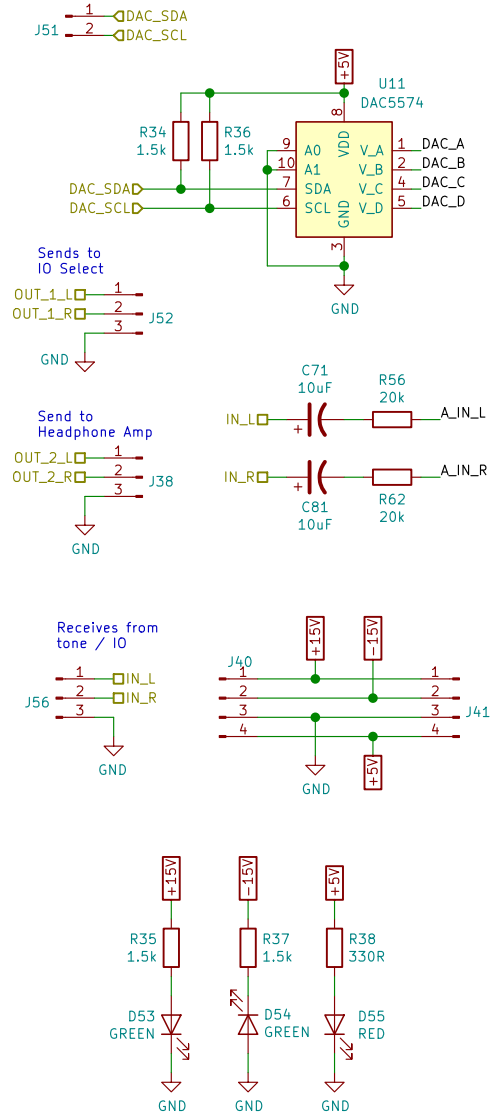
Size: A4 Date: 2020-02-25
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Buffered DAC output max approx. 0.78V
 $5V * (2k / (6.34k + 6.49k))$

Per VCA Manufacturer's spec, 6mV per dB attenuation
 for max 0.78V, $0.78 / 0.006 = 130dB$ range
 $130dB / 256 \text{ steps} = 0.51dB / \text{step}$

178k offset resistor shifts output up by approx. 30dB
 control range becomes -100dB to +30dB



<http://www.thatcorp.com/datashts/dn02.pdf>

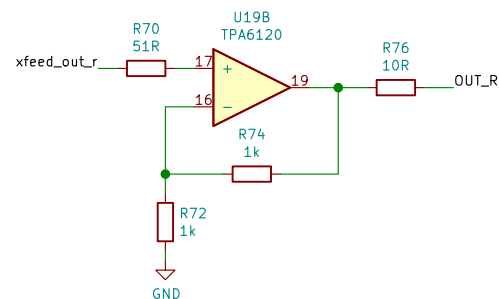
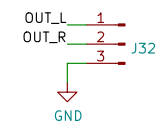
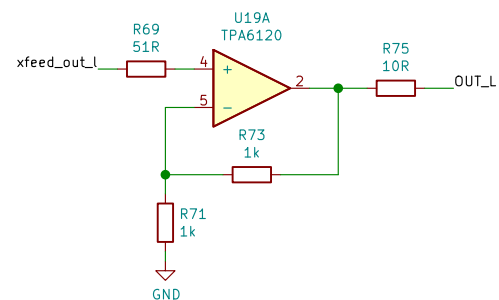
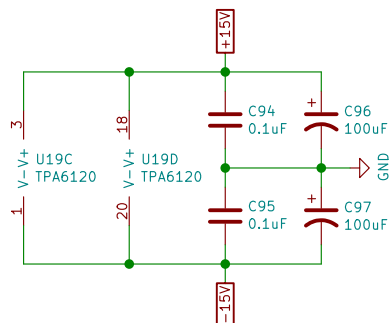
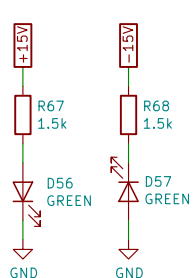
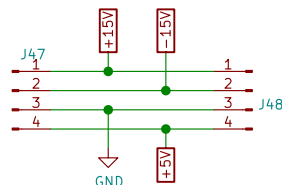
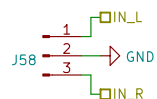
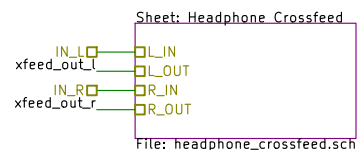
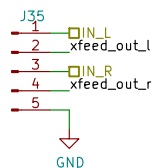
Author: Jordan Gerber
 github.com/SlurpyTurts/preamp
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Sheet: /Volume Control/
 File: volume_ctrl.sch

Title:

Size: A4 Date: 2020-02-25
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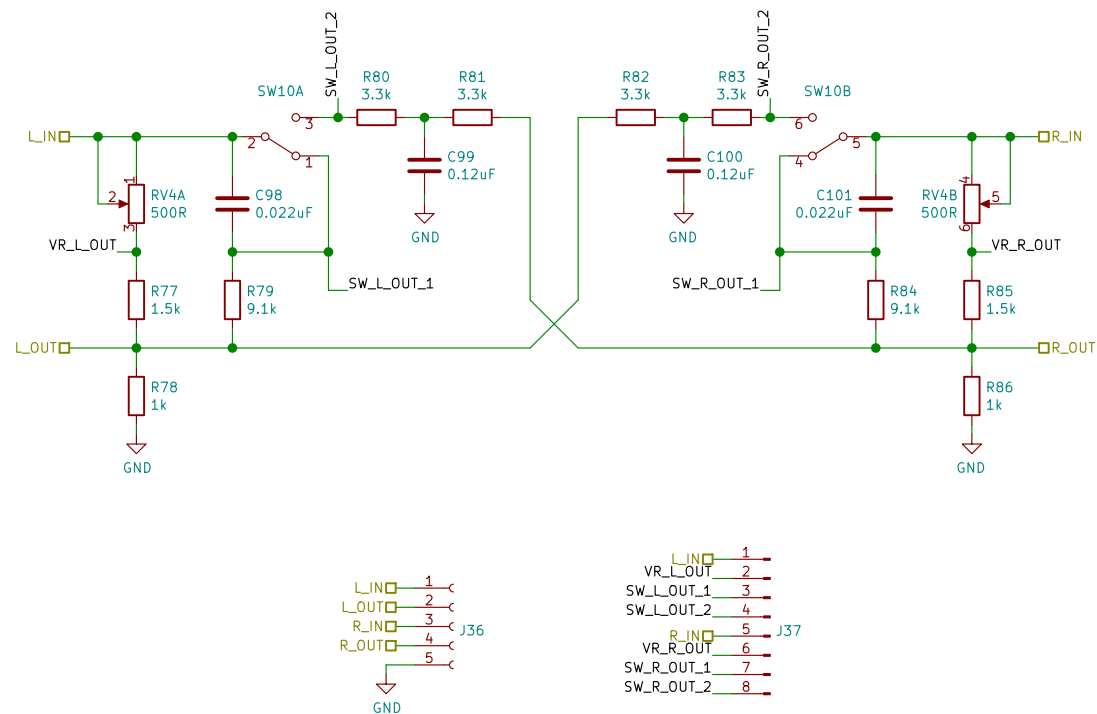
Rev: A00
 Id: 7/13



crosstalk: <https://headwizememorial.wordpress.com/2018/03/09/an-acoustic-simulator-for-headphone-amplifiers/>
amp: http://www.pavouk.org/hw/tpa6120headamp/en_index.html



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Sheet: /headphone amp/ File: headphone_amp.sch	
Title: Headphone Amplifier Board	
Size: A4	Date: 2020-02-25
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Sheet: /headphone amp/Headphone Crossfeed/
 File: headphone_crossfeed.sch

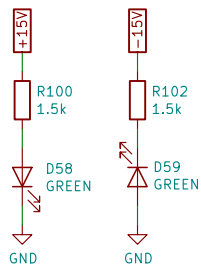
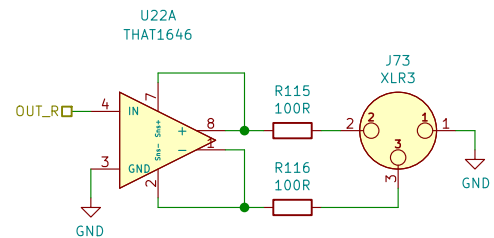
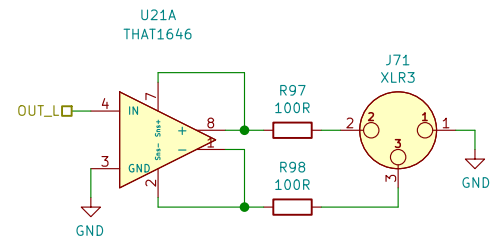
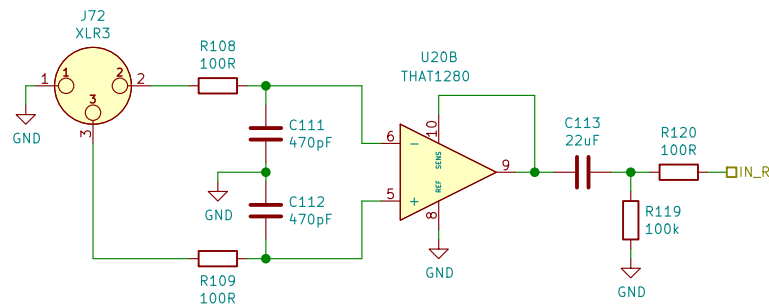
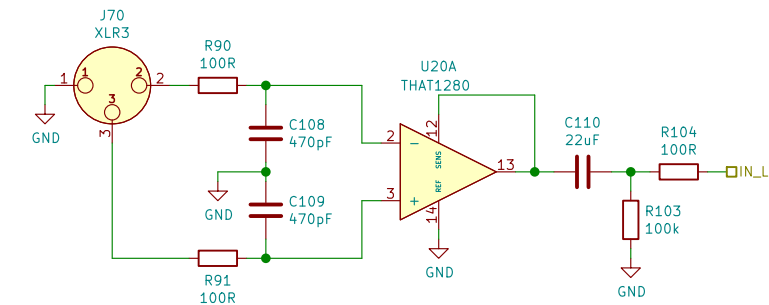
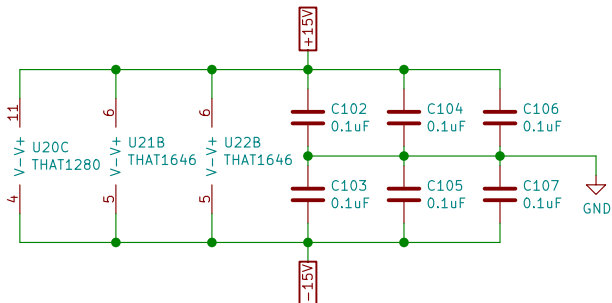
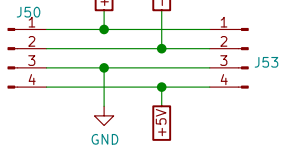
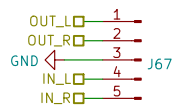
Title: Headphone Crosstalk

Size: A4 Date: 2020-02-25

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Rev: A00

Id: 9/13



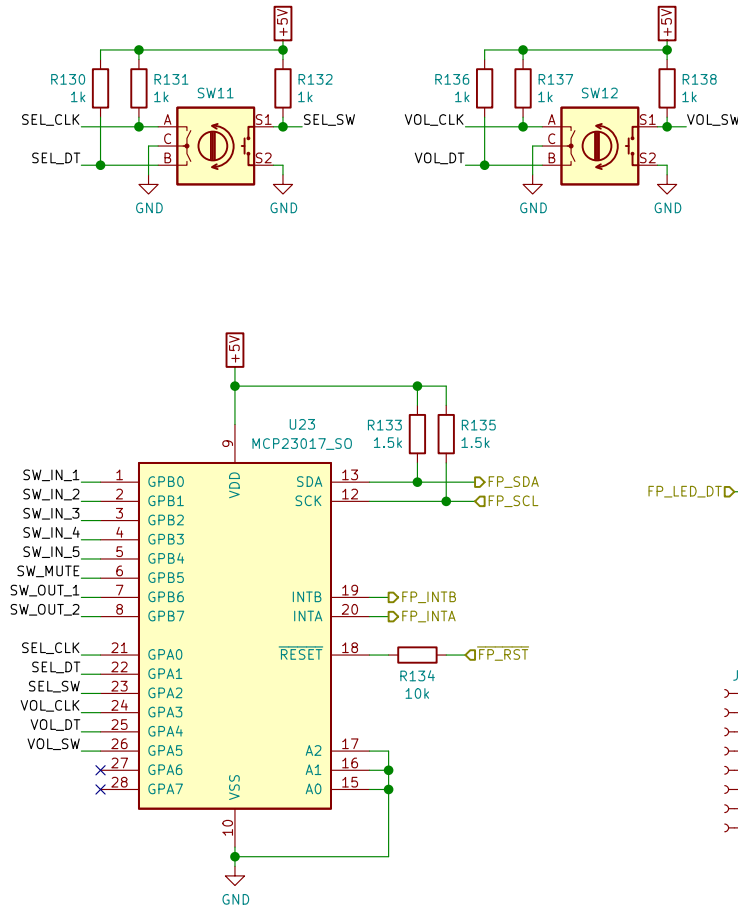
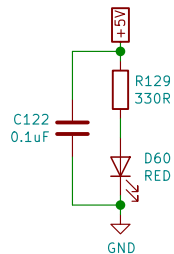
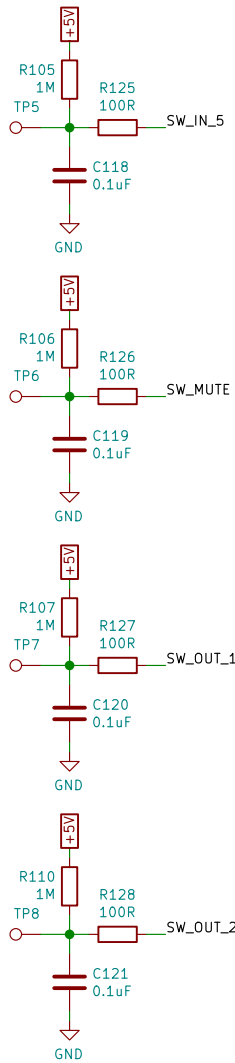
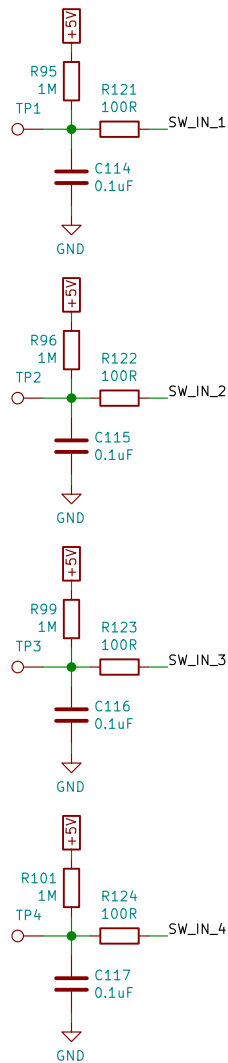
Author: Jordan Gerber
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Sheet: /Balanced daughter IO pcb/
File: IO_BALANCED_DAUGHTER.sch

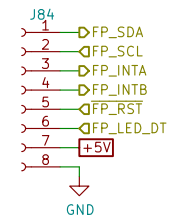
Title: Balanced IO Daughter Board

Size: A4 Date: 2020-02-25
KiCad E.D.A. kicad (5.1.5-0-10_14)

Rev: A00
Id: 10/13



Sheet: sheet5F448428
File: front_panel_LED.sch



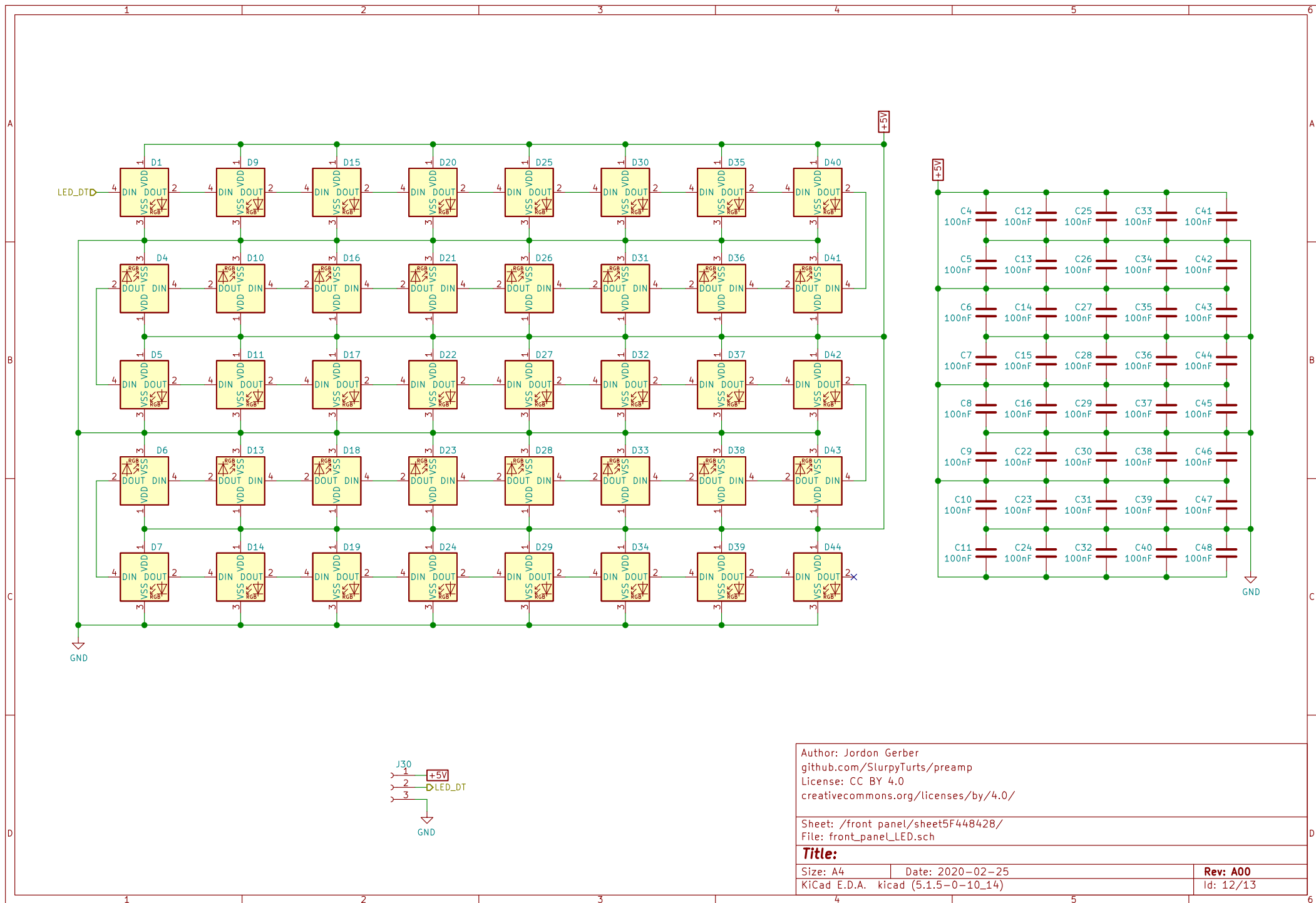
Author: Jordan Gerber
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Sheet: /front panel/
File: front_panel.sch

Title: Front Panel

Size: A4 Date: 2020-02-25
KiCad E.D.A. kicad (5.1.5-0-10_14)

Rev: A00
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Sheet: /front panel/sheet5F448428/ File: front_panel_LED.sch		
Title:		
Size: A4	Date: 2020-02-25	Rev: A00
KiCad E.D.A. kicad (5.1.5-0-10_14)		Id: 12/13

