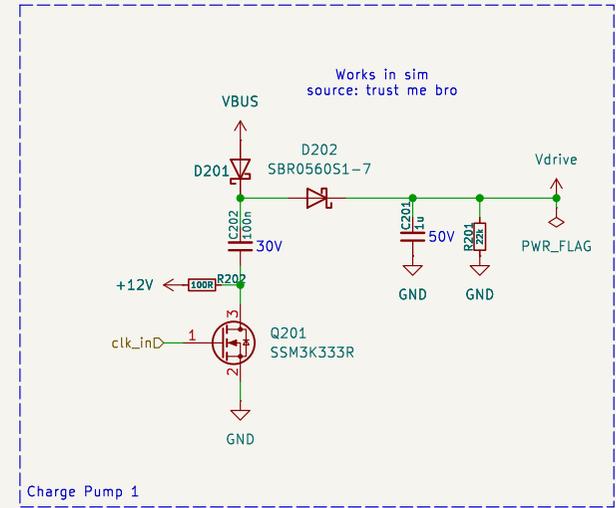


Assume diode behaviour, i.e. exponential.  
 From the data sheet, resistance is proportional to  $e^{-20t}$ .  
 Take 1V range as being "linear region."  
 Solving with RC we get 30ms.

Switching



Sheet: /Analog Stuff/  
 File: gate\_driver.kicad\_sch

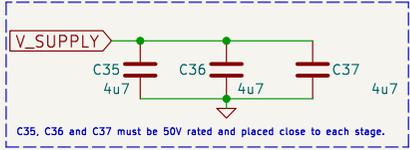
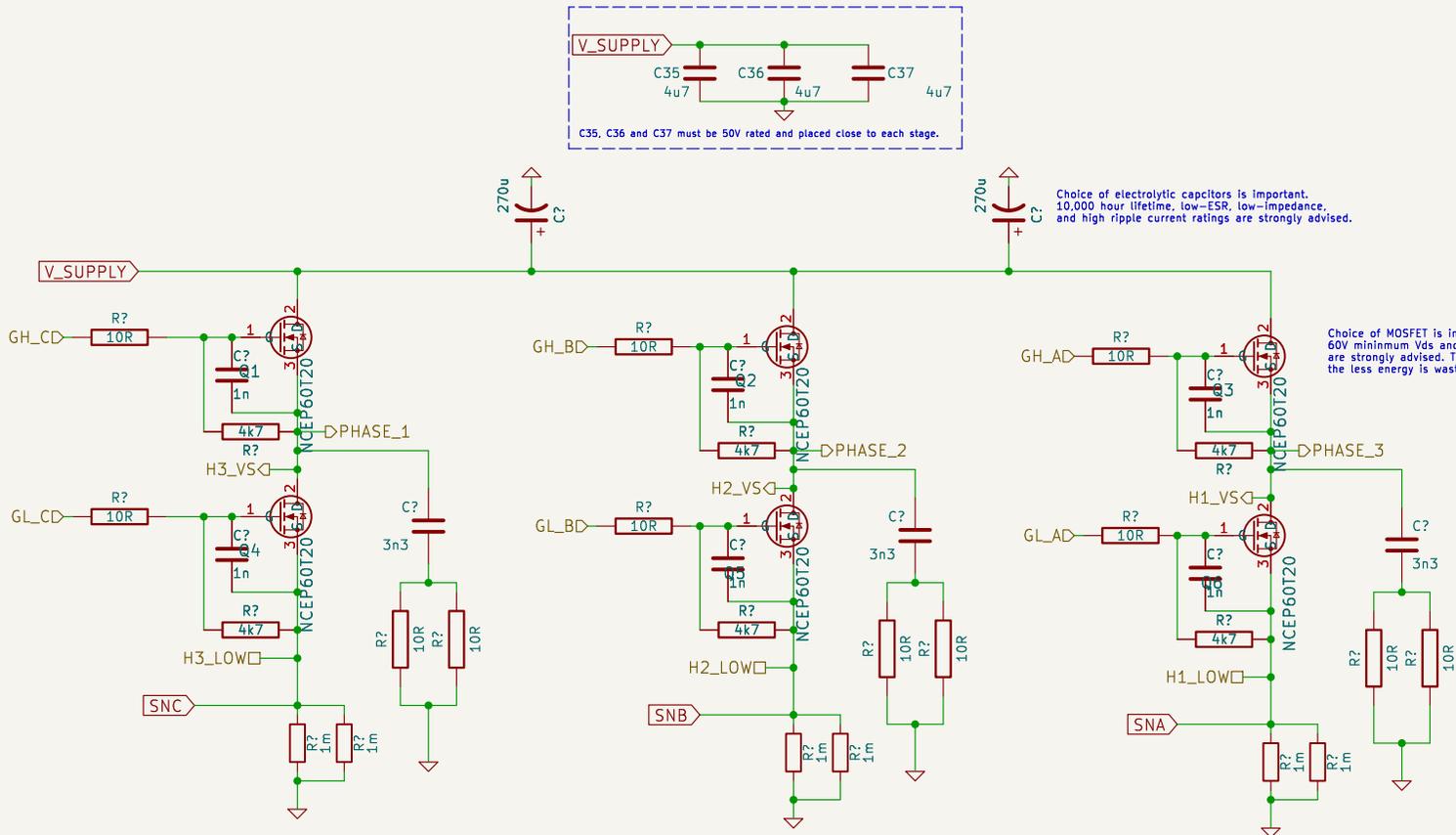
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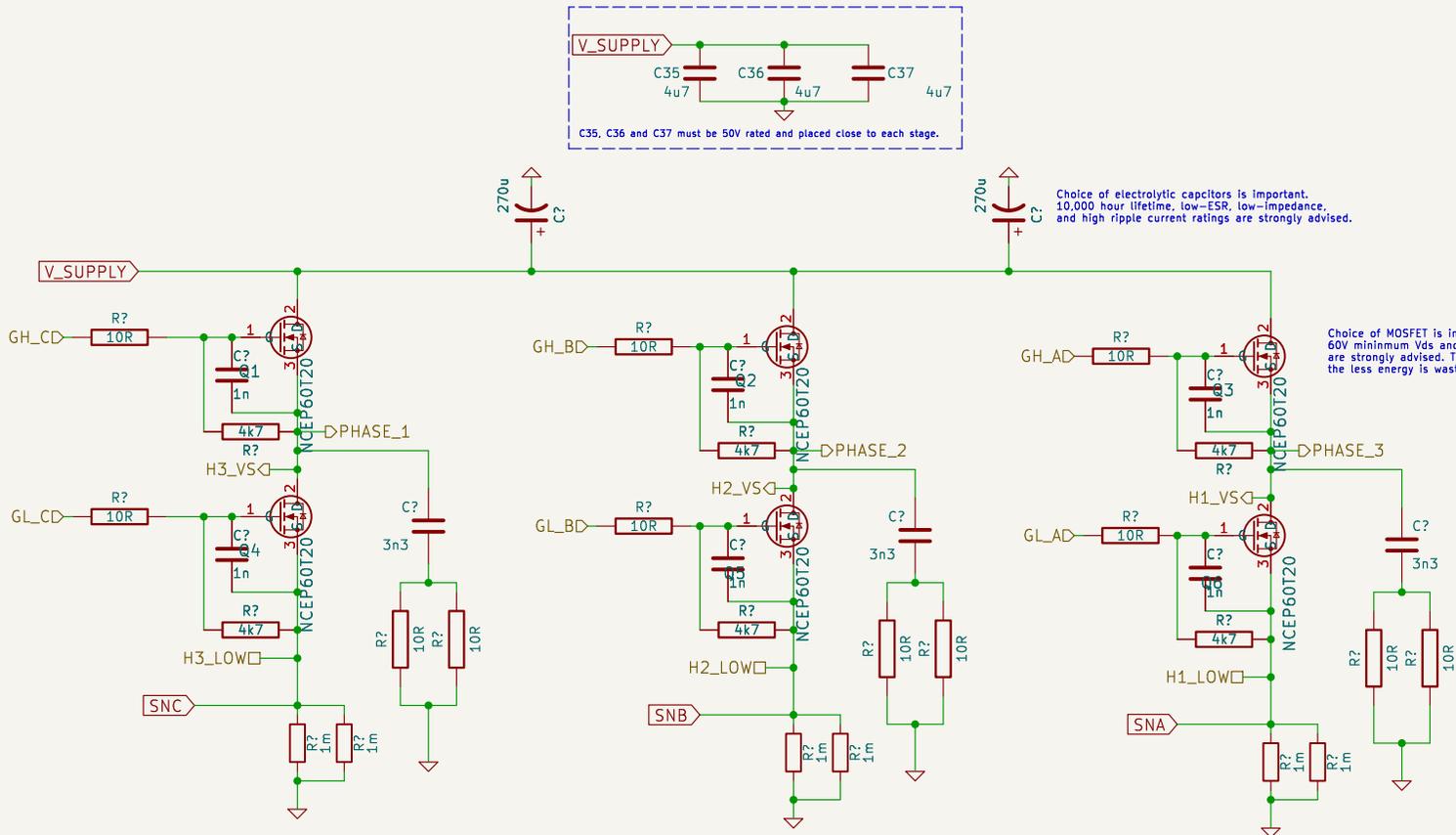


C35, C36 and C37 must be 50V rated and placed close to each stage.

Choice of electrolytic capacitors is important. 10,000 hour lifetime, low-ESR, low-impedance, and high ripple current ratings are strongly advised.

Choice of MOSFET is important. 60V minimum Vds and 2.5ohm max Rds(on) are strongly advised. The lower the Rds(on), the less energy is wasted to heat dissipation.

Top level	
Root	
Shaman Systems	
Sheet: /Analog Stuff/Mosfets 1/	
File: mosfets.kicad_sch	
<b>Title: Cheap FOCer 2</b>	
Size: A4	Date: 2020-04-08
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	Id: 3/7



V\_SUPPLY

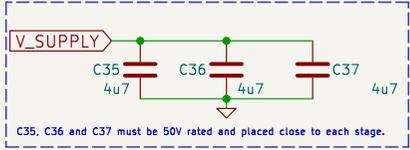
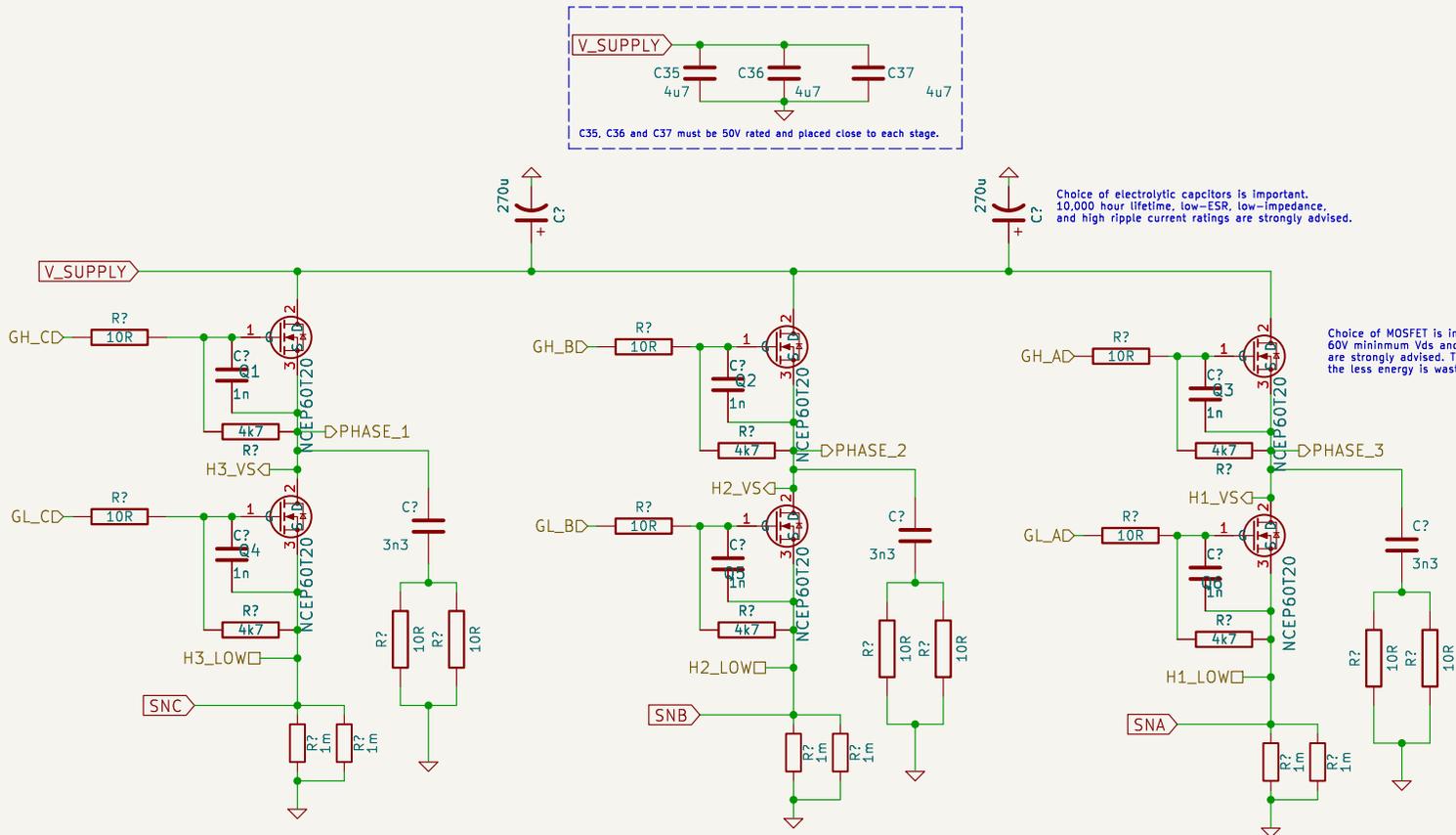
C35 4u7 C36 4u7 C37 4u7

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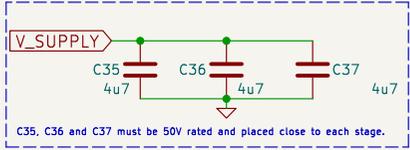
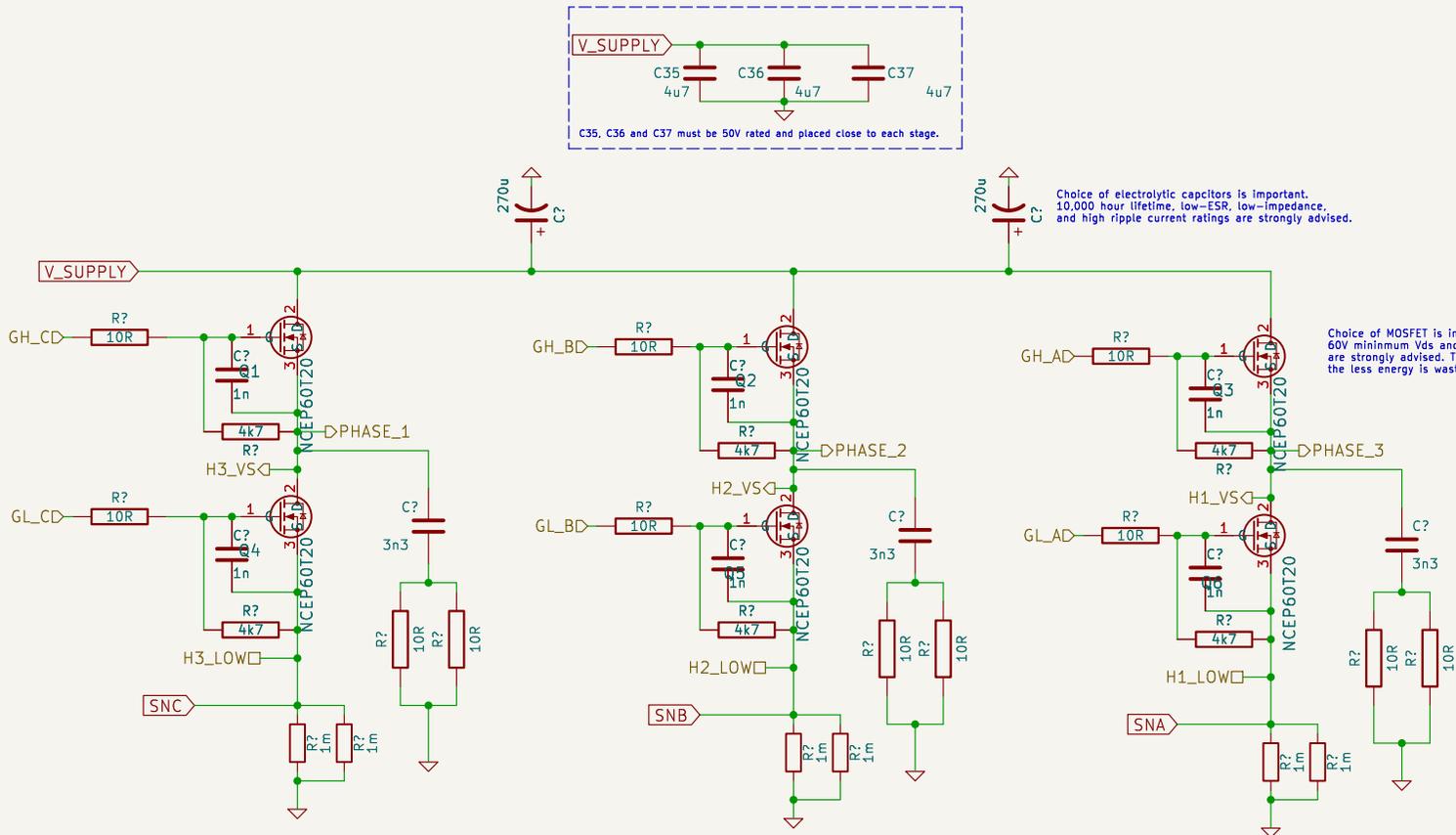
Top level	
Root	
Shaman Systems	
Sheet: /Analog Stuff/Mosfets 2/	
File: mosfets.kicad_sch	
<b>Title: Cheap FOCer 2</b>	
Size: A4	Date: 2020-04-08
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	Id: 4/7



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Top level	
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Shaman Systems	
Sheet: /Analog Stuff/Mosfets 3/	
File: mosfets.kicad_sch	
<b>Title: Cheap FOCer 2</b>	
Size: A4	Date: 2020-04-08
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	Id: 5/7



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Top level	
Root	
Shaman Systems	
Sheet: /Analog Stuff/Mosfets 4/	
File: mosfets.kicad_sch	
<b>Title: Cheap FOCer 2</b>	
Size: A4	Date: 2020-04-08
KiCad E.D.A. 9.0.0	Rev: 0.9
	Id: 6/7

