

Minimal Schematic to create an Arduino Zero compatible board		
Thomas Pointhuber		
Sheet: /Arduino_Zero_Base/		
File: Arduino_Zero_Base.sch		
Title: Arduino Zero base schematic		
Size: A4	Date: 2016-12-03	Rev: 0.1
KiCad E.D.A. kicad (2016-11-05 revision 3af551c)-master		Id: 2/7

**ISSET**

$I_{GATE\_HS} = 42.8\text{mA}$   
 $I_{GATE\_LS} = 80.7\text{mA}$

**RC**

$T_{OFF} = 49.4\mu\text{s}$   
 $T_{BLANK} = 6.7\mu\text{s}$

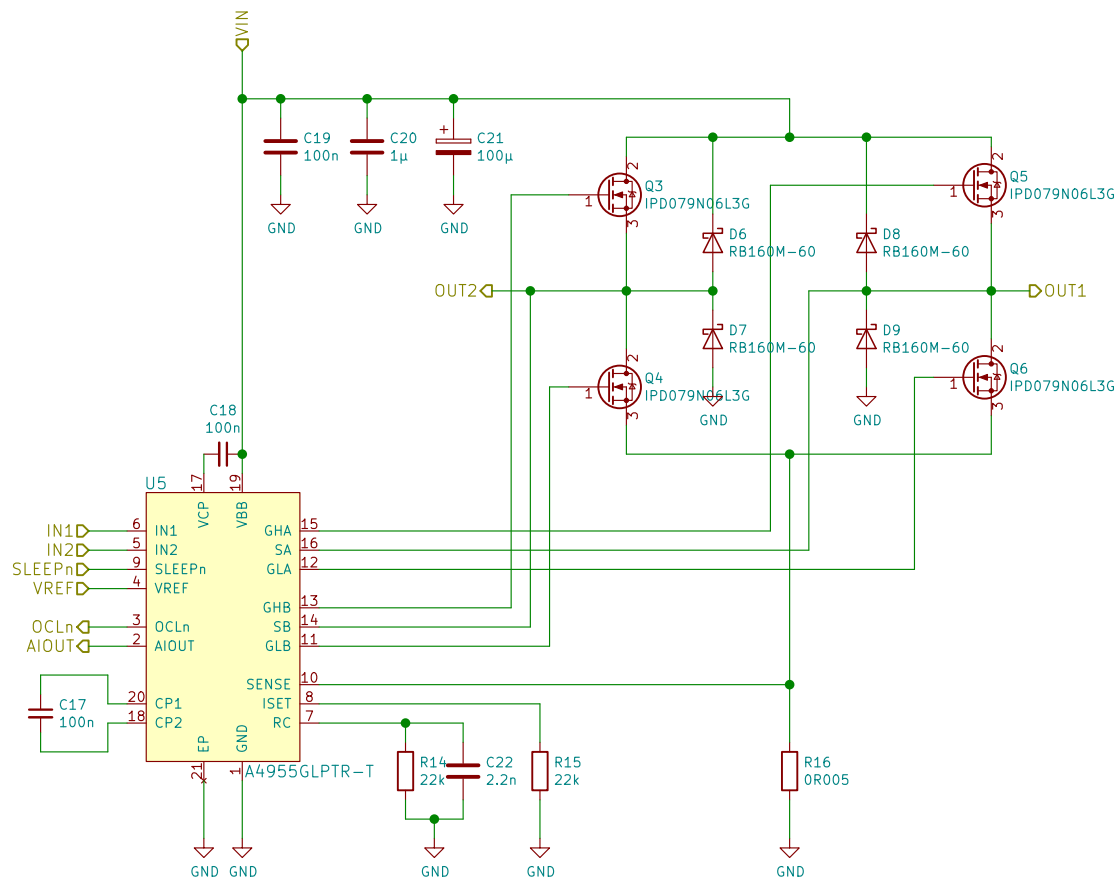
**Current Limiter**

$I_{MAX} = 10\text{A}$   
 $V_{REF\_MAX} = 0.5\text{V}$

I\_GATE\_HS = 42.8mA  
I\_GATE\_LS = 80.7mA

T\_OFF = 49,4μs  
T\_BLANK = 6,7μs

I\_MAX = 10A  
VREF\_MAX = 0.5V



Sheet: /PWM\_Bridge\_A4955-A/  
File: PWM\_Bridge\_A4955.sch

Size: A4	Date: 2016-11-11
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## CALCULATIONS

### ISET

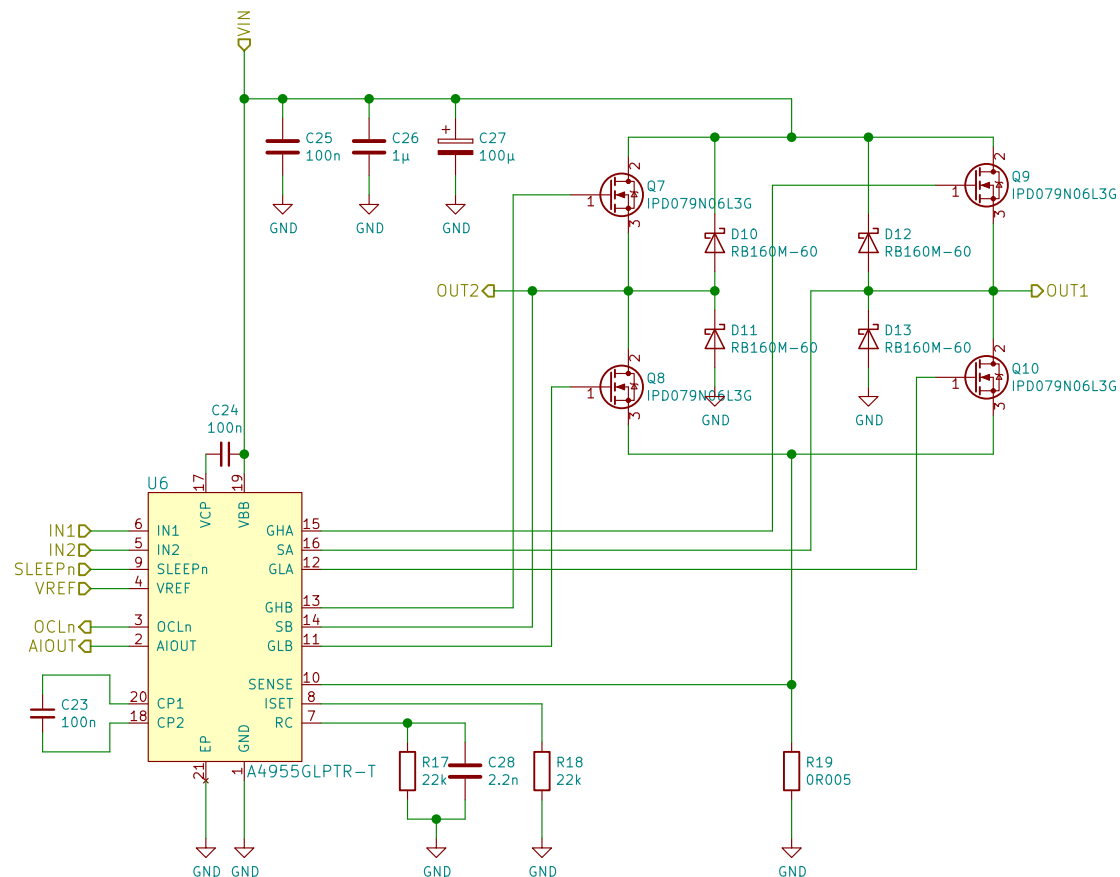
$I_{GATE\_HS} = 42.8\text{mA}$   
 $I_{GATE\_LS} = 80.7\text{mA}$

### RC

$T_{OFF} = 49.4\mu\text{s}$   
 $T_{BLANK} = 6.7\mu\text{s}$

### Current Limiter

$I_{MAX} = 10\text{A}$   
 $V_{REF\_MAX} = 0.5\text{V}$



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Sheet: /PWM\_Bridge\_A4955-B/

File: PWM\_Bridge\_A4955.sch

**Title: A4955 PWM Bridge**

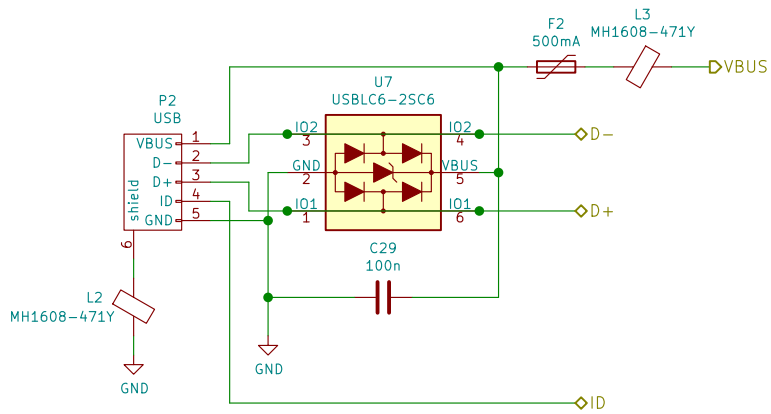
Size: A4

Date: 2016-12-03

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Sheet: /Protected\_USB\_Supply/  
File: Protected\_USB\_Supply.sch

**Title: USB input including protection circuit**

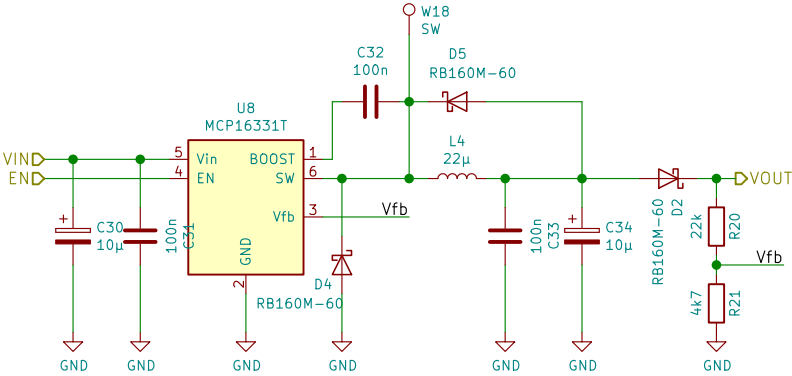
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CALCULATIONS

OUTPUT VOLTAGE

R\_TOLERANCE = 5%  
U\_OUT\_MIN = 4.18V  
U\_OUT\_MAX = 4.93V

R\_TOLERANCE = 1%  
U\_OUT\_MIN = 4.47V  
U\_OUT\_MAX = 4.62V



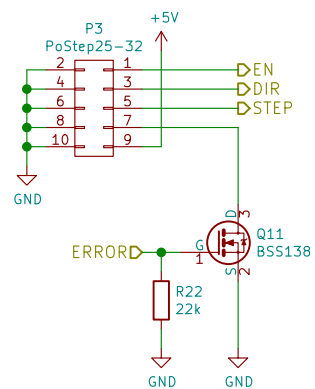
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Sheet: /MCP16331\_5V/  
File: MCP16331\_5V.sch

**Title: Step Down with input range of 10V-50V**

Size: A4 Date: 2016-12-03  
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Sheet: /PoStep25-32\_galvanic/

File: PoStep25-32\_galvanic.sch

**Title: ProStep25-32 input including optional galvanic separation**

Size: A4

Date: 2016-12-03

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