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AC Current Sensor
AC_Current_Sensor.sch

AC Output
AC_Output.sch

POS12 Power Supply
POS12_Power_Supply.sch

POS3P3 Power Supply
POS3P3_Power_Supply.sch

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Microcontroller.sch

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Sensor Signal Conditioning
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USB_UART_Bridge.sch

USB UART Isolation
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OLED Display
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Mechanical
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Zero Cross Detect
Zero_Cross_Detect.sch

Output Switch
Output_Switch.sch

Status LEDs
Status_LEDs.sch

Sheet: /
File: AC_Power_Meter.sch

Title:

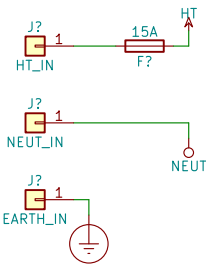
Size: A Date: 2018-10-01
KiCad E.D.A. kicad (5.0.0)

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AC Input Connections

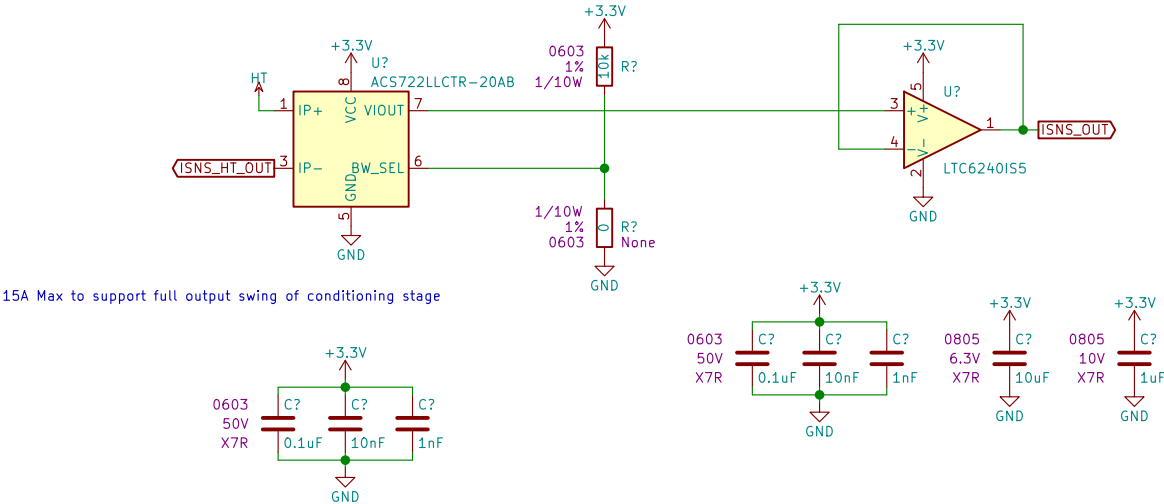


From Panel AC Input Socket ->



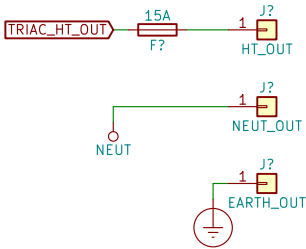
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Size: A	Date: 2018-10-01	Rev: A
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AC Current Sensor, Signal Buffer



15A Max to support full output swing of conditioning stage

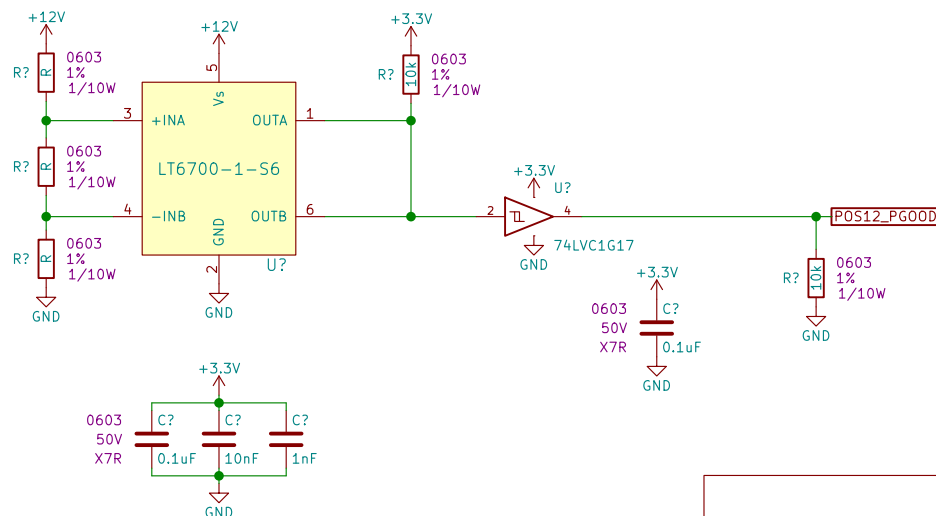
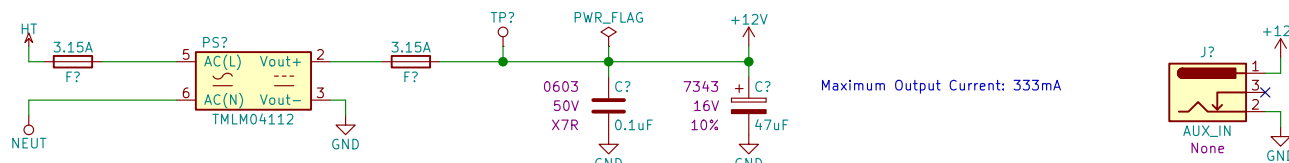
AC Output Connections



-> To Panel AC Output Socket

Sheet: /AC Output/ File: AC_Output.sch		
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+12V 4W Isolated AC/DC Converter, +12V PGOOD Window Comparator



Sheet: /POS12 Power Supply/ File: POS12_Power_Supply.sch		
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KiCad E.D.A. kicad (5.0.0)		Id: 5/16

+3.3V, 750mA, 2MHz Buck Converter

Sheet: /POS3P3 Power Supply/ File: POS3P3_Power_Supply.sch		
Title:		
Size: A	Date: 2018-10-01	Rev: A
KiCad E.D.A. kicad (5.0.0)		Id: 6/16



Title:		
Size: A	Date: 2018-10-01	Rev: A
KiCad E.D.A. kicad (5.0.0)		Id: 6/16

Size: A	Date: 2018-10-01	Rev: A
KiCad E.D.A. kicad (5.0.0)		Id: 6/16

KiCad E.D.A. kicad (5.0.0)	Id: 6/16
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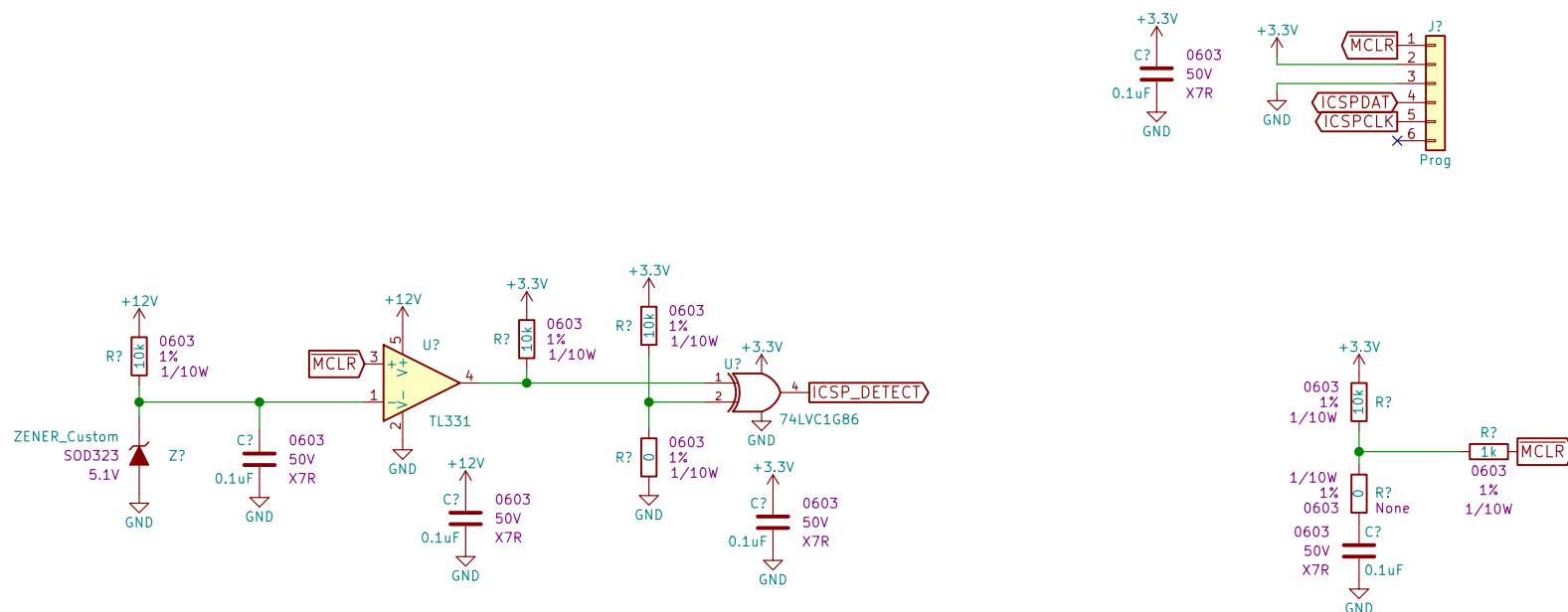
Id: 6/16

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Rev: A
Id: 7/16

Programming Header, MCLR Reset Filter, ICSP Detection



Sheet: /Microcontroller Programming/
File: Microcontroller_Programming.sch

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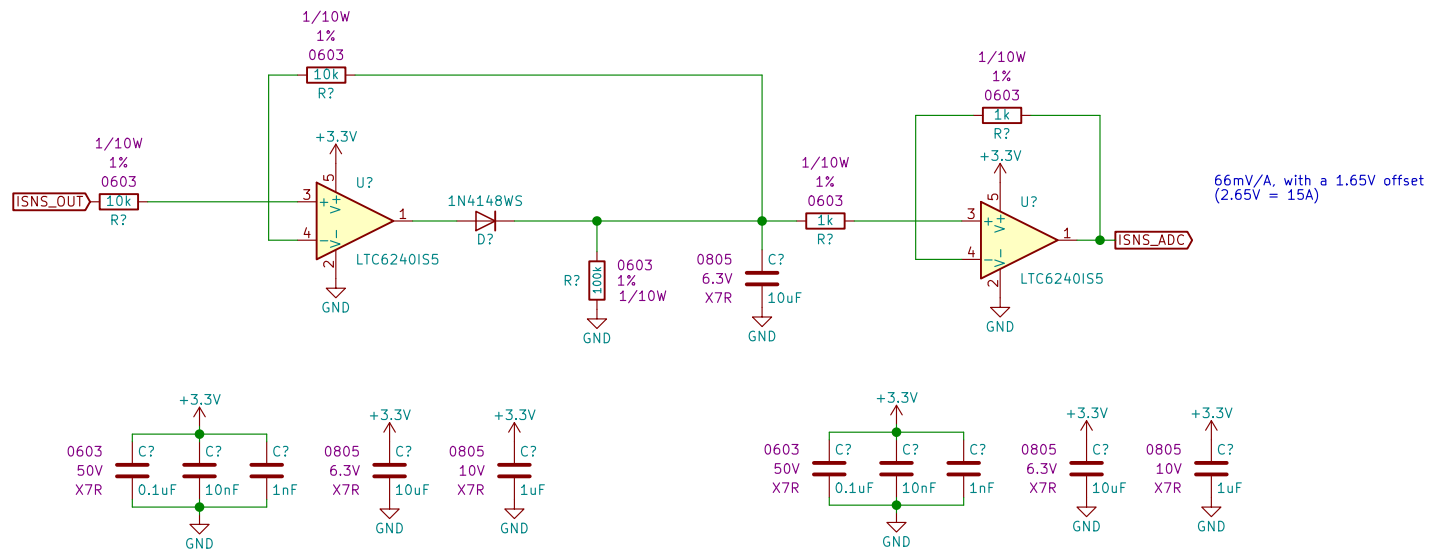
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KiCad E.D.A. kicad (5.0.0)	

Date:

Rev:

Id: 8/16

Current Sensing Peak Detector, ADC Buffer



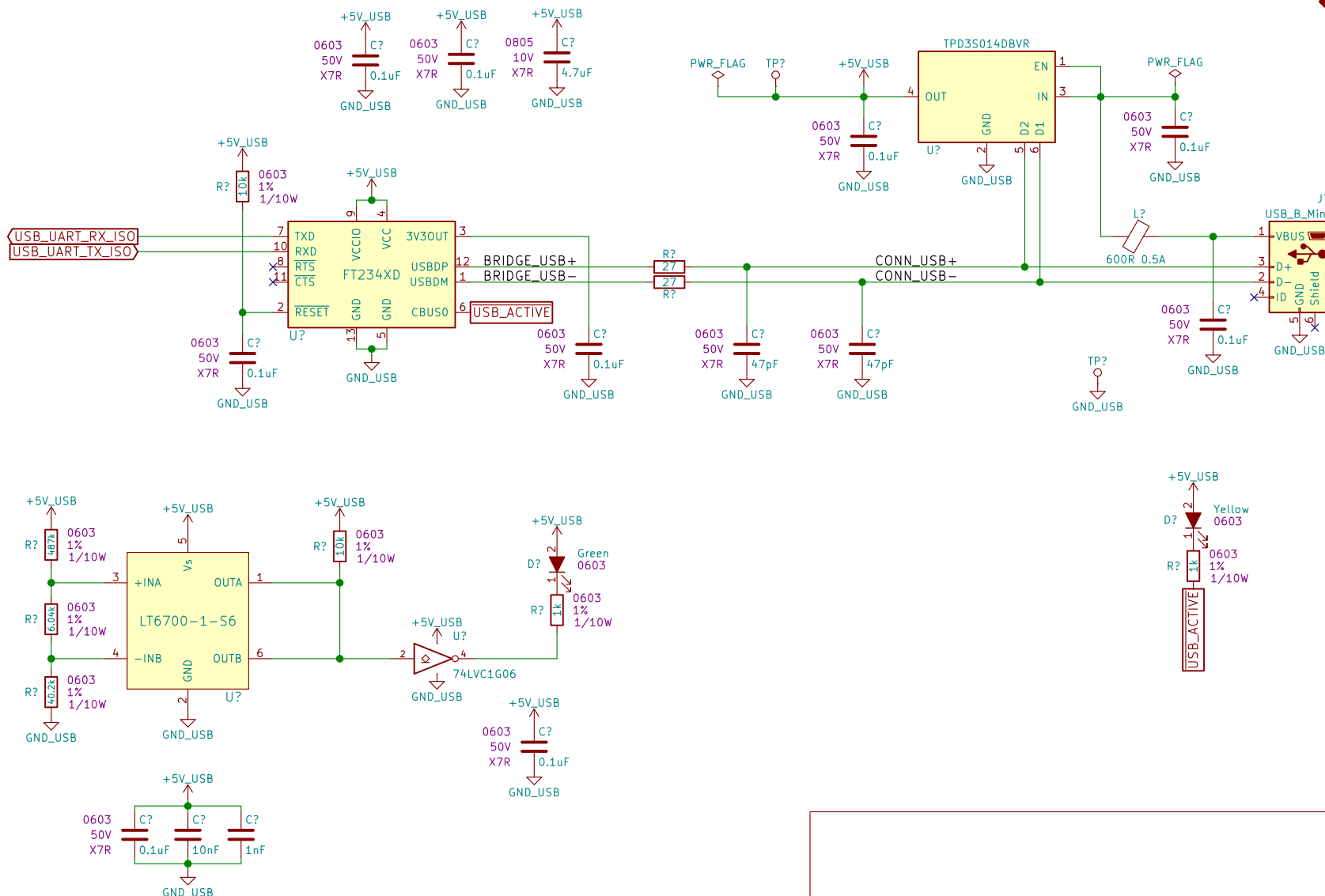
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Size: A Date: 2018-10-01
KiCad E.D.A. kicad (5.0.0)

Rev: A
Id: 9/16

UART to USB Bridge, +5V USB Window Comparator



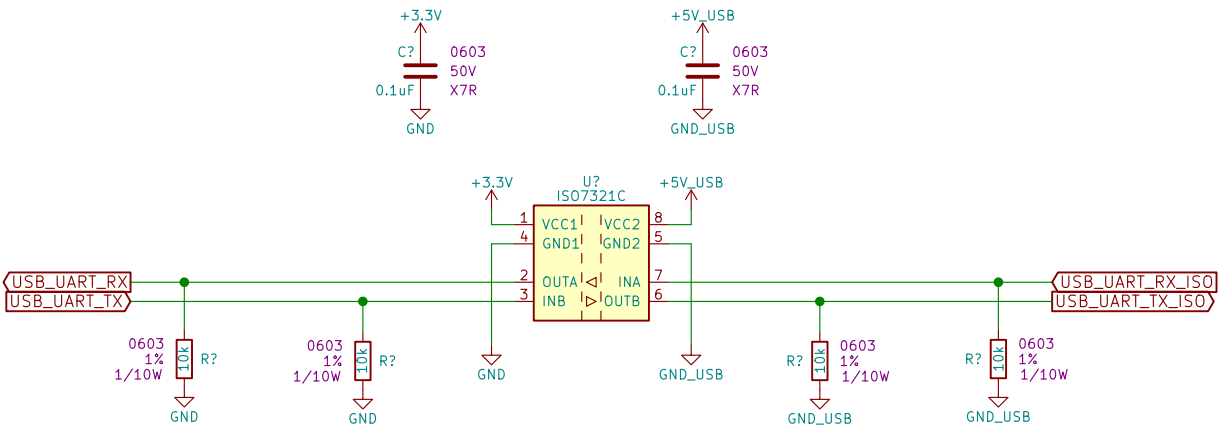
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Size: A Date:
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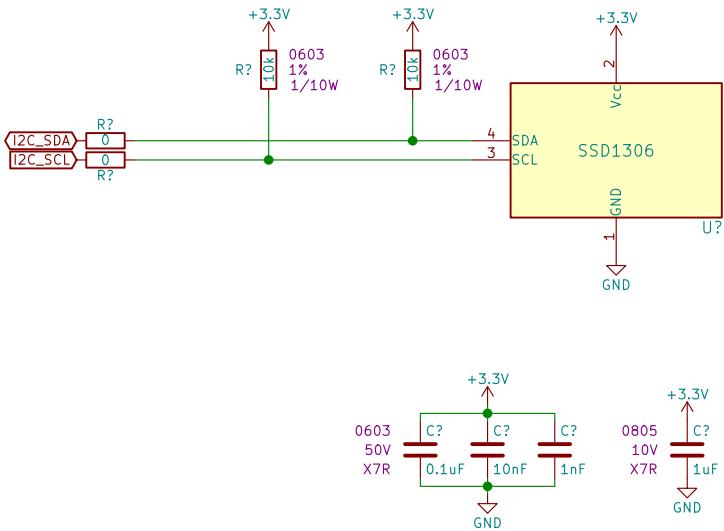
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Id: 10/16

USB UART Isolation



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Title:		
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KiCad E.D.A. kicad (5.0.0)		Id: 11/16

OLED Display



Mounting Holes and Mechanical Components



MK?
4-40 Standoff



MK?
4-40 Standoff



MK?
4-40 Standoff



MK?
4-40 Standoff



MK?
4-40 Standoff



MK?
4-40 Standoff



MK?
4-40 Standoff



MK?
4-40 Standoff



MK?
4-40 Screw



MK?
4-40 Screw



MK?
4-40 Screw



MK?
4-40 Screw



MK?
4-40 Screw



MK?
4-40 Screw



MK?
4-40 Screw



MK?
4-40 Screw

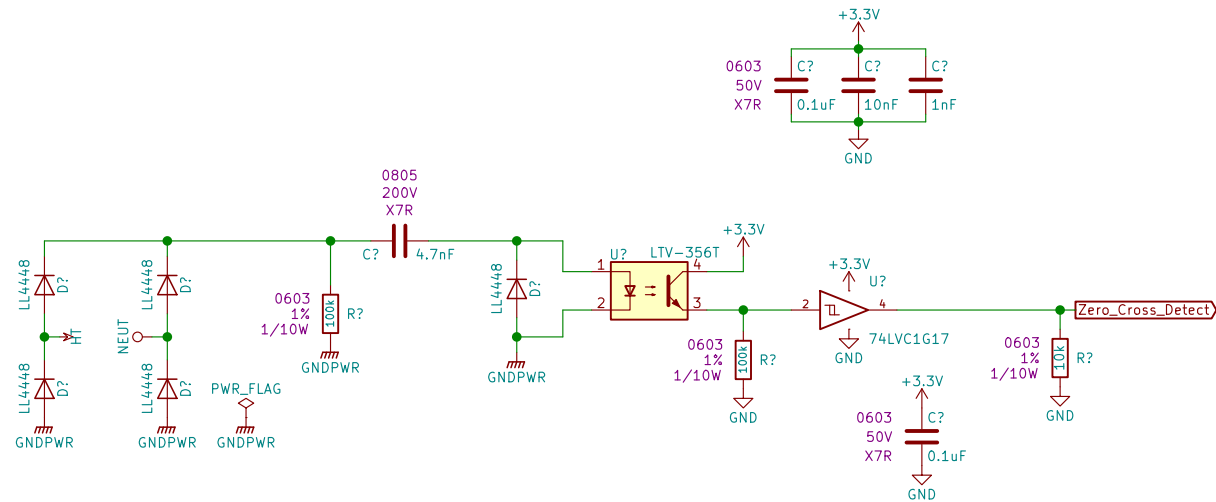
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KiCad E.D.A. kicad (5.0.0)

Rev: A
Id: 13/16

Input AC Zero-Cross Detection



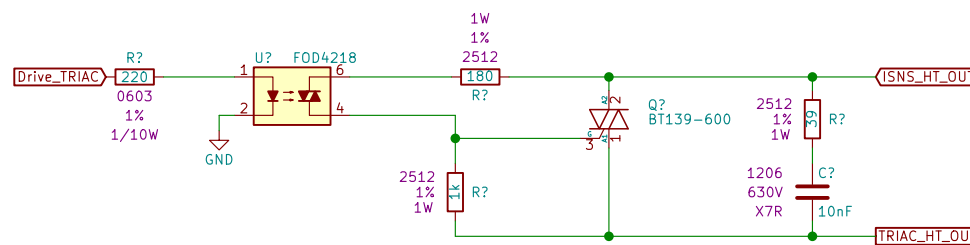
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File: Zero_Cross_Detect.sch

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Size: A Date:
KiCad E.D.A. kicad (5.0.0)

Rev:
Id: 14/16

Output AC Solid State Switch, Random Phase



Sheet: /Output Switch/
File: Output_Switch.sch

Title:

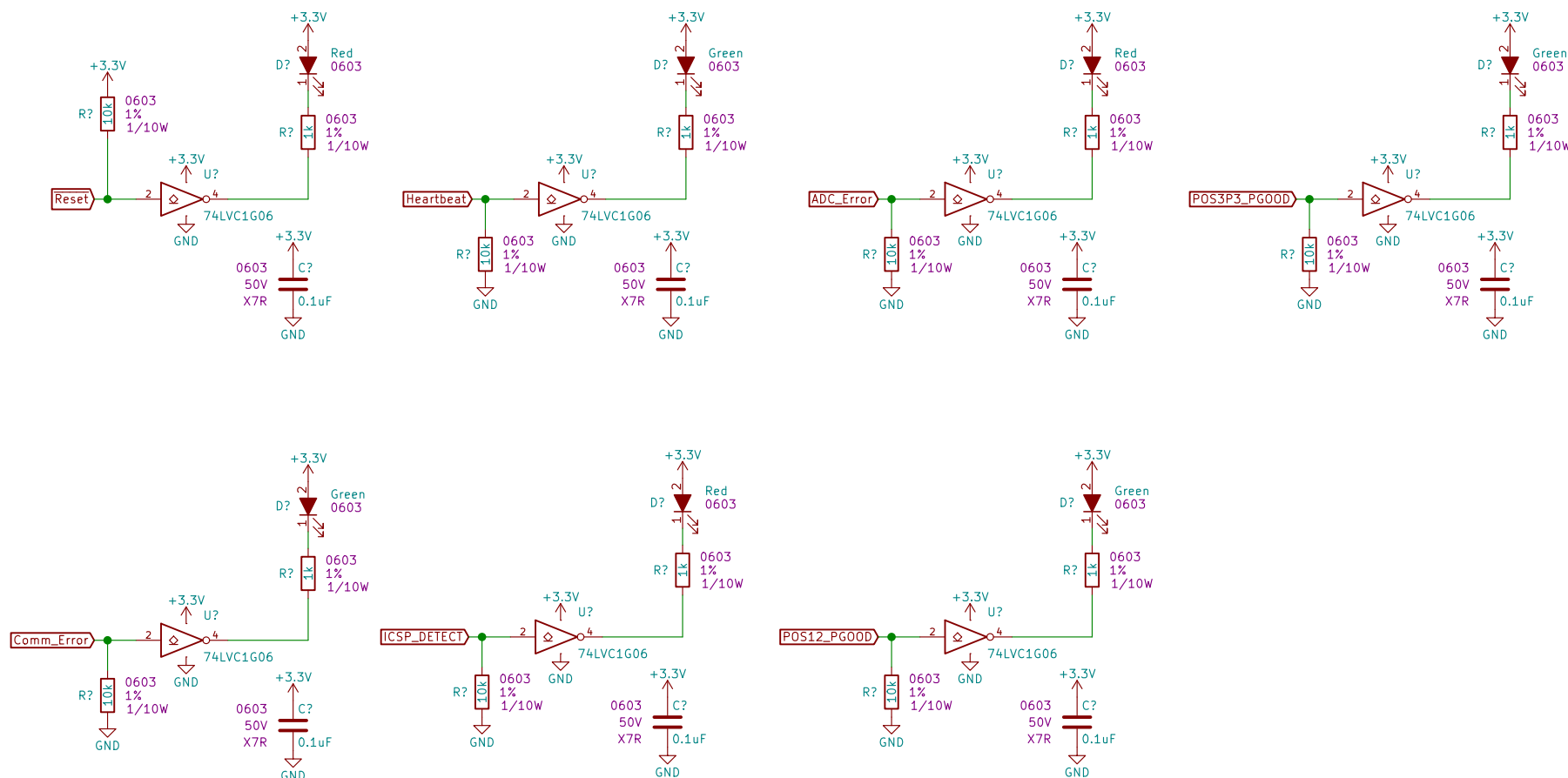
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KiCad E.D.A.	kiCad (5.0.0)

Date:

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Id: 15/16

Status LEDs



Sheet: /Status LEDs/
File: Status_LEDs.sch

Title:

Size: A Date:
KiCad E.D.A. kicad (5.0.0)

Rev:
Id: 16/16