IV-22 VFD Tube Clock Driver Board V2.0

STM32L071RBT6

File: STM32L071RBT6.kicad_sch

display_board_connector

File: display_board_connector.kicad_sch

Power

File: Power.kicad_sch

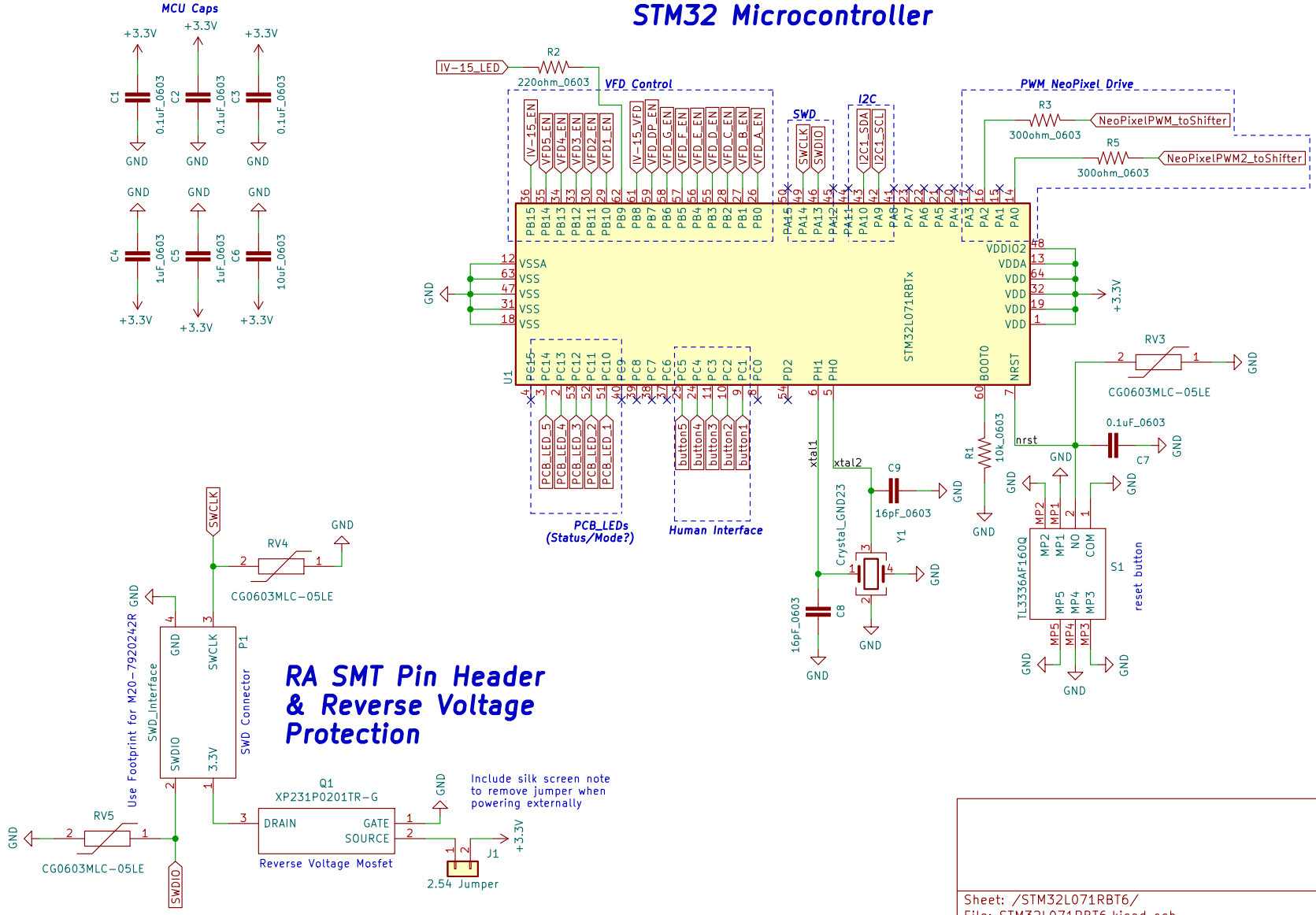
Sheet: /

File: IV-22 VFD Clock Driver Board_V2.0.kicad_sch

Title:

Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad (6.0.1)		Id: 1/10

STM32 Microcontroller



Interface and Control

File: Interface and Control.kicad_sch

I2C Devices

File: I2C Devices.kicad_sch

VFD_Control

File: VFD_Control.kicad_sch

NeoPixel Underglow

File: NeoPixel Underglow.kicad_sch

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File: STM32L071RBT6.kicad_sch

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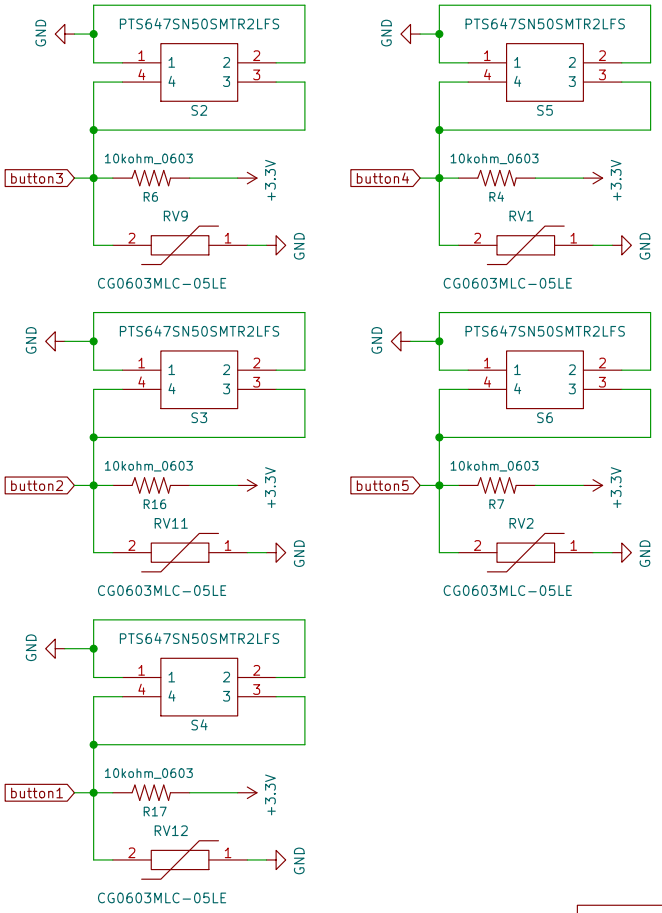
KiCad E.D.A. kicad (6.0.1)		Id: 2/10

buttons: +, −, ENTER, BACK, MENU/MODE



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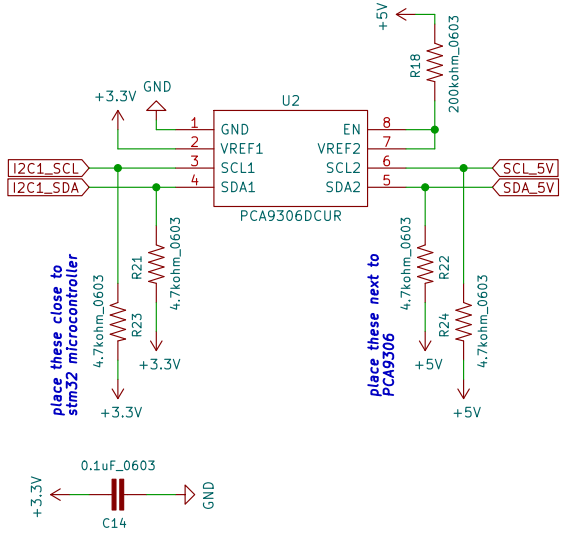
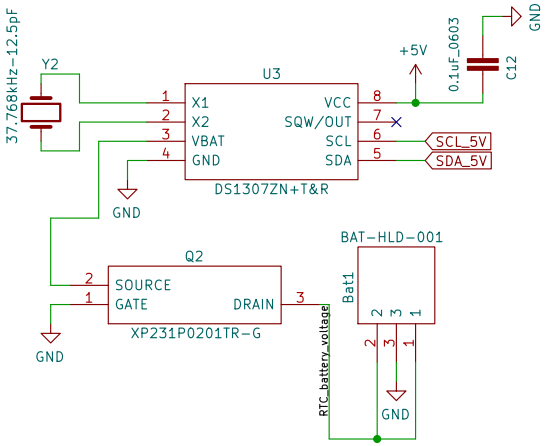
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad (6.0.1)		Id: 3/10

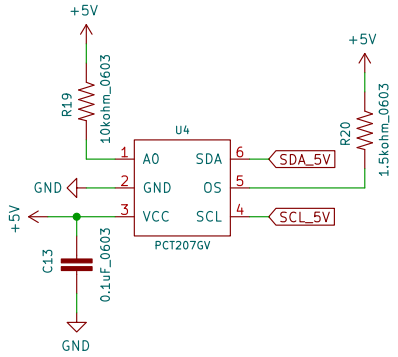
I2C Level Shifter Chip



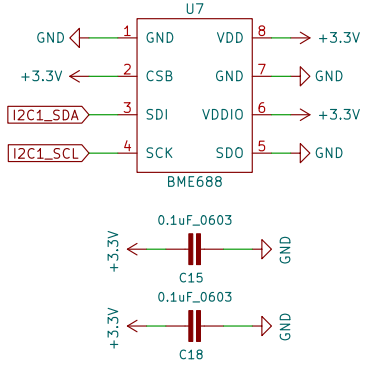
RTC chip & battery backup



PCB Temperature Sensor



BME688 I2C mode W/ default address



Environmental sensor

Sheet: /STM32L071RBT6/I2C Devices/		
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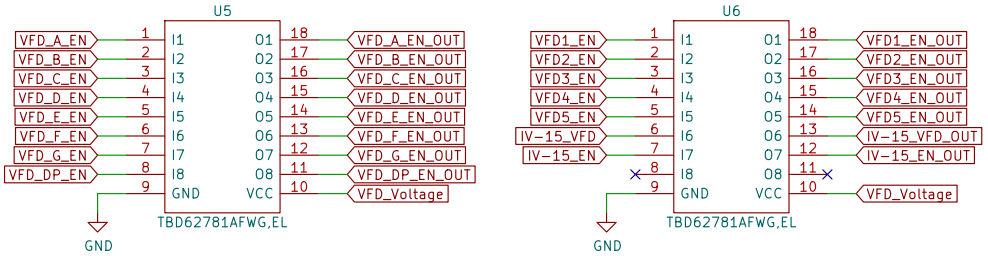
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad (6.0.1)		Id: 4/10

Gate Drivers to switch VFD voltage to VFD Segments



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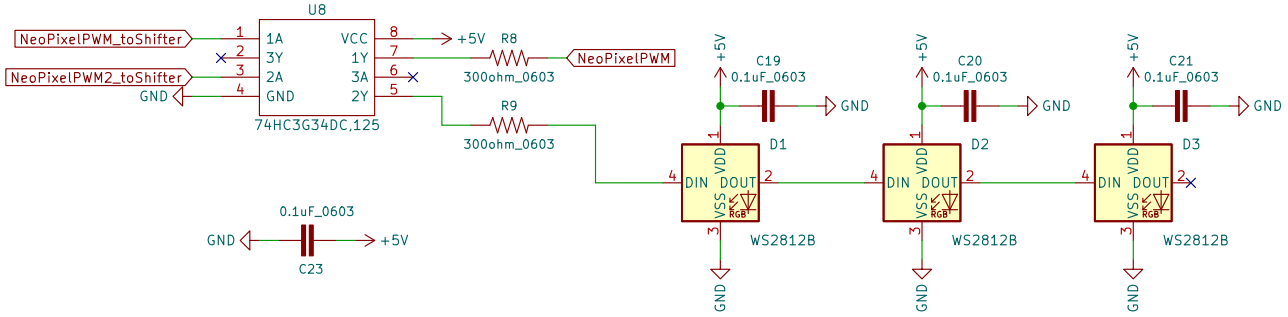
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad (6.0.1)		Id: 5/10

level shifter for WS2812B LED lines



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Size: A4	Date:	**Rev:**
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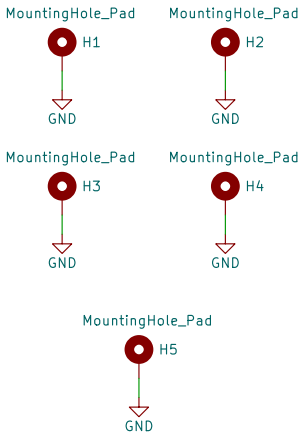

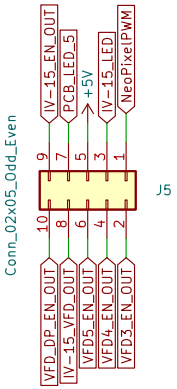

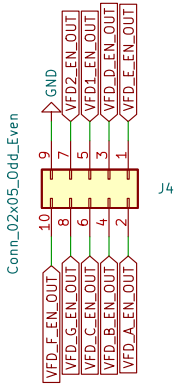

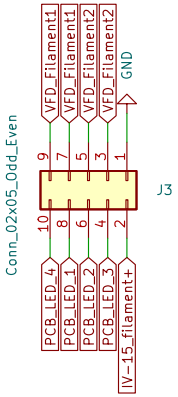

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Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad (6.0.1)		Id: 7/10

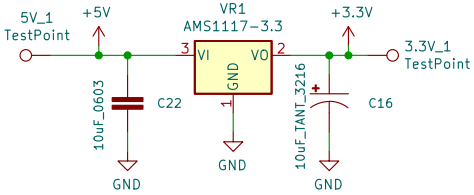
VFD Anode Boost Circuit

File: VFD Anode Boost Circuit.kicad_sch

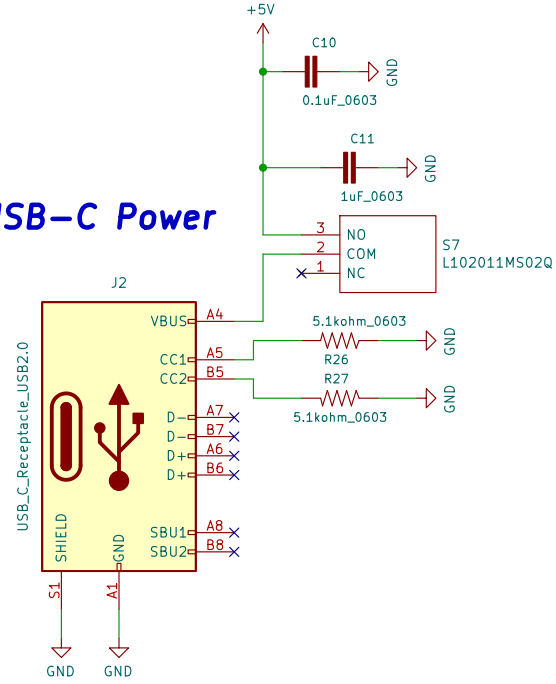
VFD Filament Drive.sch

File: VFD Filament Drive.kicad_sch

3.3V LDO



USB-C Power



place one on each side of PCB

Sheet: /Power/ File: Power.kicad_sch		
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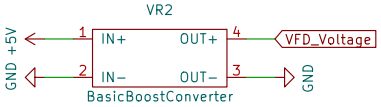
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad (6.0.1)		Id: 8/10

XL6009 boost converter module



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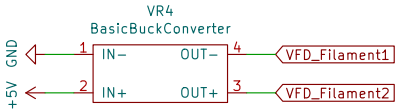
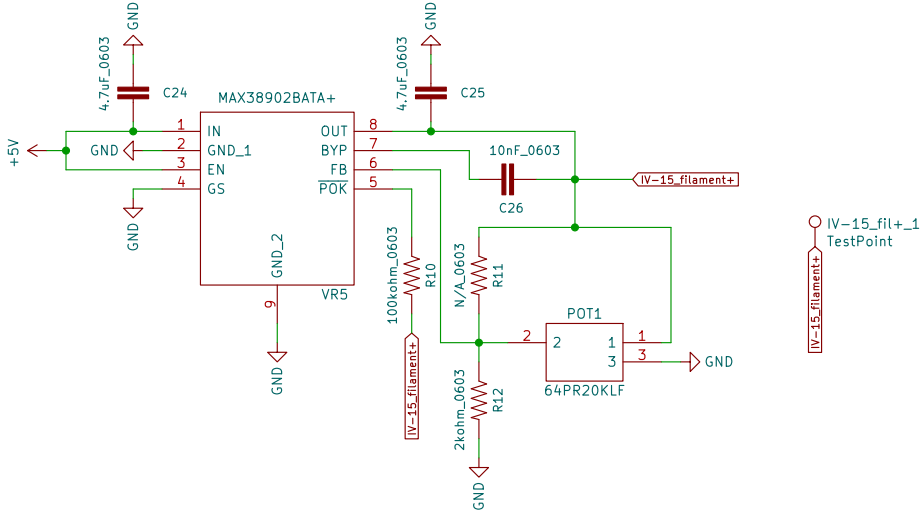
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad (6.0.1)		Id: 9/10

Buck Converter Module for VFD Filament
Set to 1.1V–1.3V



IV–15VFD FIlament Drive



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