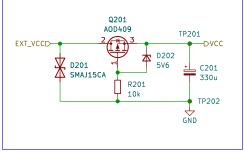
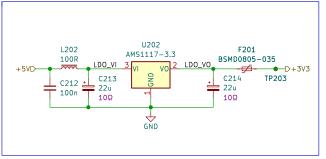


# Power





+3V3 LDO linear regulator



+3V3D D204
Power
X 031

330R

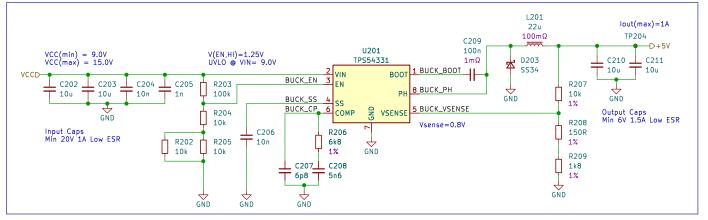
GND

Power Indicator

ESD Protection and reverse polarity protection.

Use tantalum caps with  $0.2\Omega$  < ESR <  $22\Omega$ .

## +5V Switching regulator



## BlueDot, Vincenzo Fortunato

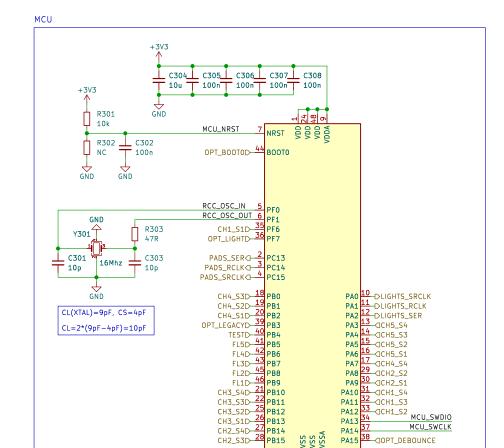
Sheet: /Power/ File: power.kicad\_sch

Title: BD845-PWB SCH

 Size: A4
 Date: 2022-11-27
 Rev: 1.0.0

 KiCad E.D.A. kicad 7.0.2
 Id: 2/9

# Microcontroller Unit



PA14 37

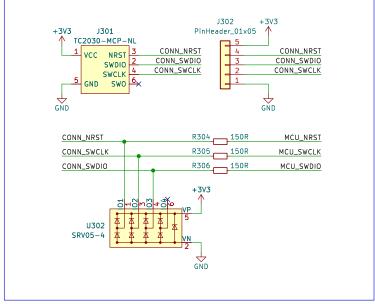
U301 STM32F030C8Tx

GND

PA15 38 JOPT\_DEBOUNCE

MCU\_SWCLK

## Debug Header SWD



SWD Tag-Connect TC2030-MCP-NL and redundant PinHeader\_01x05. Series resistors limit maximum short-circuit current.

BlueDot. \	/incenzo	Fortunato

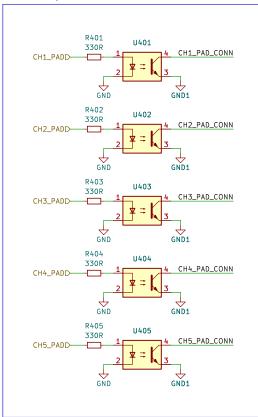
Sheet: /MCU/ File: mcu.kicad sch

Title: BD845-PWB SCH

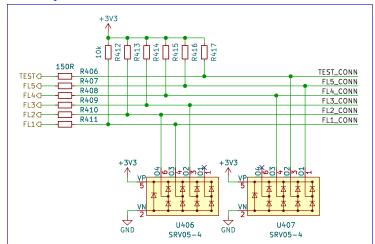
Size: A4 Date: 2022-11-27 Rev: 1.0.0 KiCad E.D.A. kicad 7.0.2 ld: 3/9

# Communication channel

## Channel output isolators

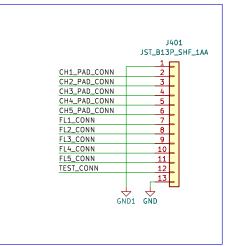


## External lights control and TEST



ESD protection. Series resistors limit maximum short-circuit current.

#### Communication connector



## BlueDot, Vincenzo Fortunato

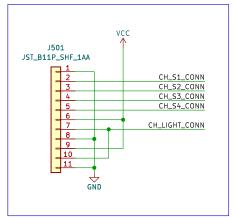
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Title: BD845-PWB SCH

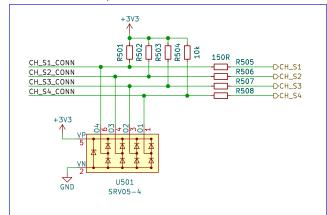
 Size: A4
 Date: 2022-11-27
 Rev: 1.0.0

 KiCad E.D.A. kicad 7.0.2
 Id: 4/9

#### Pad channel connector

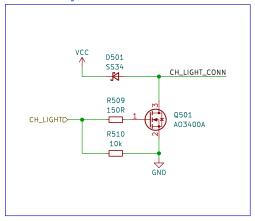


## Pad channel sensor inputs



ESD Protection. Series resistors limit maximum short-circuit current.

## Pad channel light control



# BlueDot, Vincenzo Fortunato

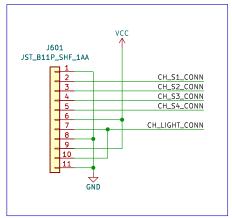
Sheet: /Pad Channel 1/ File: pad\_channel.kicad\_sch

Title: BD845-PWB SCH

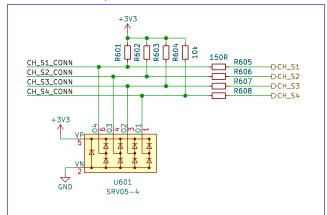
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 Rev: 1.0.0

 KiCad E.D.A. kicad 7.0.2
 Id: 5/9

#### Pad channel connector

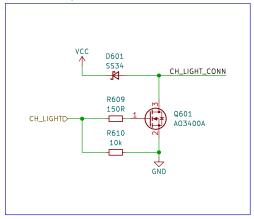


## Pad channel sensor inputs



ESD Protection. Series resistors limit maximum short-circuit current.

## Pad channel light control



# BlueDot, Vincenzo Fortunato

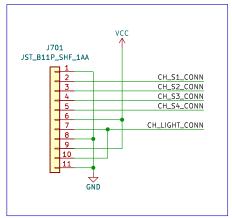
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# Title: BD845-PWB SCH

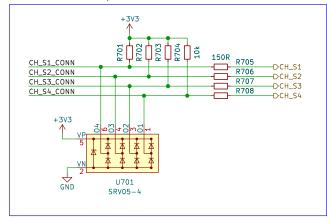
 Size: A4
 Date: 2022-11-27
 Rev: 1.0.0

 KiCad E.D.A. kicad 7.0.2
 Id: 6/9

#### Pad channel connector

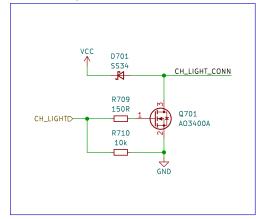


## Pad channel sensor inputs



ESD Protection. Series resistors limit maximum short-circuit current.

## Pad channel light control



# BlueDot, Vincenzo Fortunato

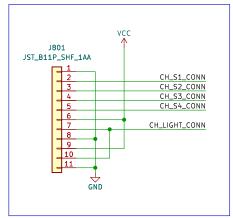
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Title: BD845-PWB SCH

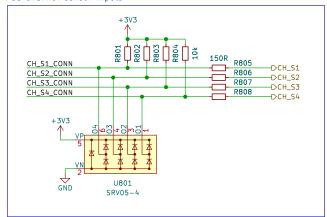
 Size: A4
 Date: 2022-11-27
 Rev: 1.0.0

 KiCad E.D.A. kicad 7.0.2
 Id: 7/9

#### Pad channel connector

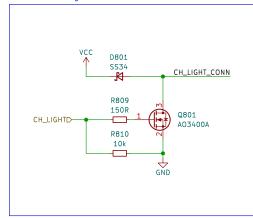


## Pad channel sensor inputs



ESD Protection. Series resistors limit maximum short-circuit current.

## Pad channel light control



# BlueDot, Vincenzo Fortunato

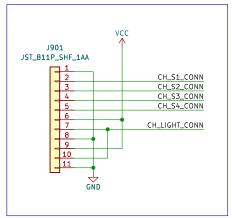
Sheet: /Pad Channel 4/ File: pad\_channel.kicad\_sch

# Title: BD845-PWB SCH

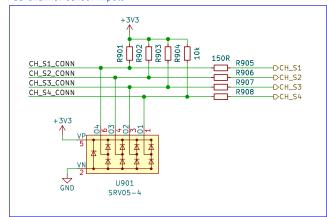
 Size: A4
 Date: 2022-11-27
 Rev: 1.0.0

 KiCad E.D.A. kicad 7.0.2
 Id: 8/9

#### Pad channel connector

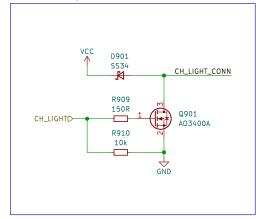


## Pad channel sensor inputs



ESD Protection. Series resistors limit maximum short-circuit current.

## Pad channel light control



# BlueDot, Vincenzo Fortunato

Sheet: /Pad Channel 5/ File: pad\_channel.kicad\_sch

# Title: BD845-PWB SCH

 Size: A4
 Date: 2022-11-27
 Rev: 1.0.0

 KiCad E.D.A. kicad 7.0.2
 Id: 9/9