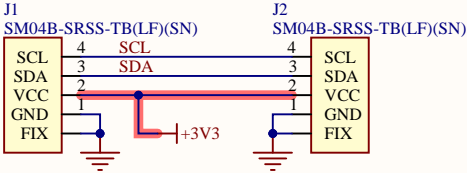
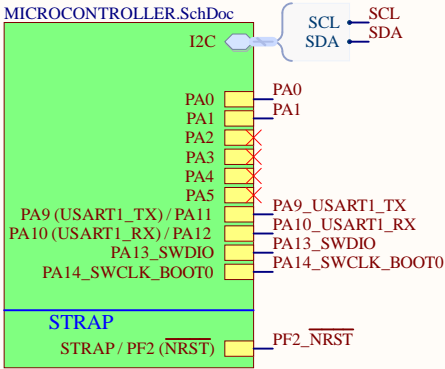


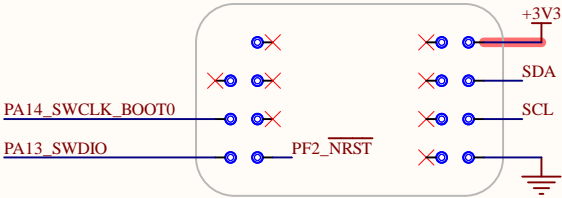
I2C CONNECTORS



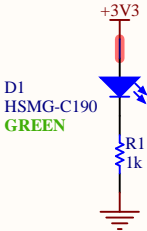
MICROCONTROLLER



TEST POINTS
BOTTOM VIEW



POWER LED



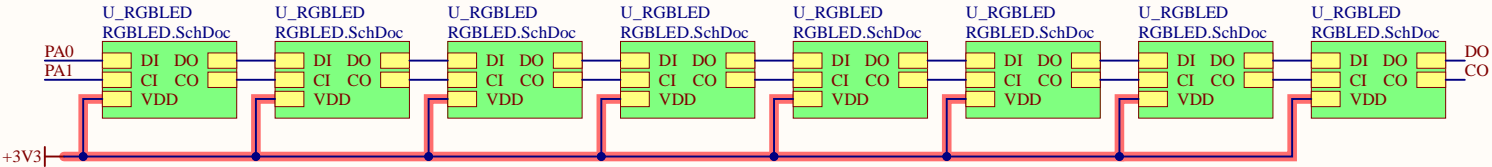
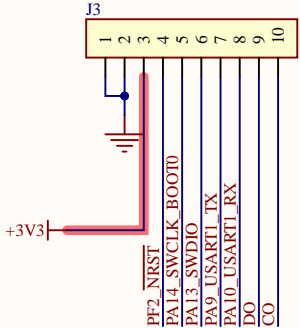
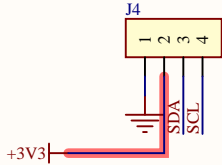
QR1
QR CODE 4x4mm



Fiducial_1
Fiducial mark 1mm

Fiducial_2
Fiducial mark 1mm

Fiducial_3
Fiducial mark 1mm



Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS". Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice. Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

Title: **TOP**

ID: **ABX00109**

Date: **27/06/2024**

File: **TOP.SchDoc**

Version: **V0.3**

Time: **16:25:11**

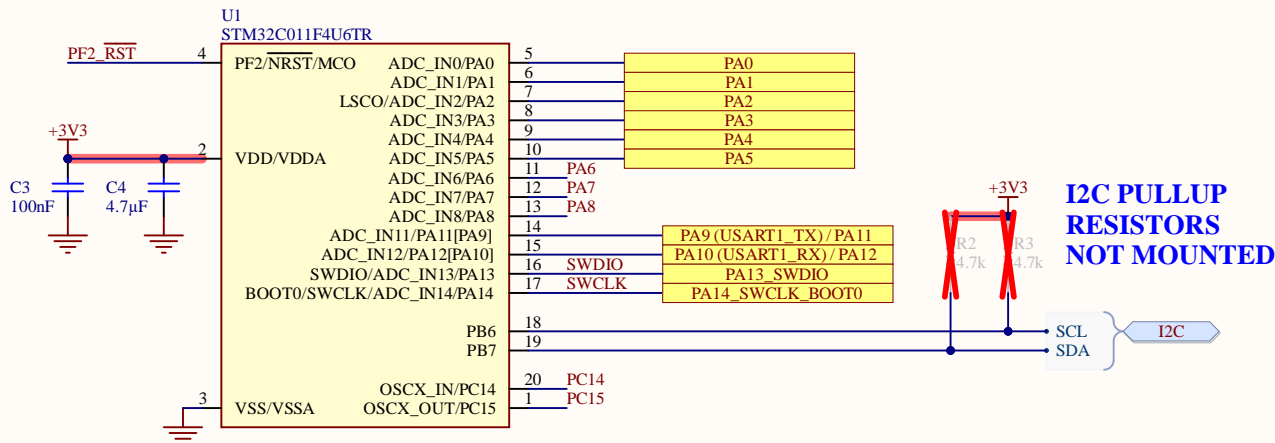
Sheet **1** of **3**

Author: **Silvio Navaretti**

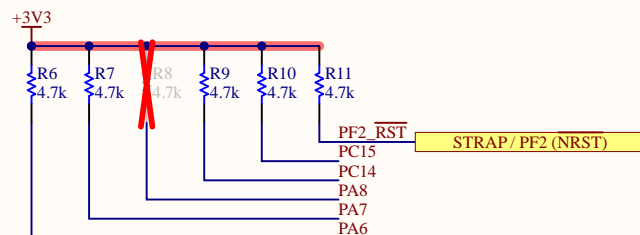
RevAuthor: **Silvio Navaretti**



Column	Symbol	Definition
Pin name	Terminal name corresponds to its by-default function at reset, unless otherwise specified parenthesis under the pin name.	
Pin type	S	Supply pin
	I	Input only pin
	I/O	Input / output pin
	FT	5 V tolerant I/O
I/O structure	RST	Bidirectional reset pin with embedded weak pull-up resistor
	Options for FT I/Os	
	_f	I/O, Fm+ capable
	_a	I/O, with analog switch function



Pin			Pin name (function upon reset)	Pin type	I/O structure	Note	Alternate functions	Additional functions
UFCP/PIN20								
20			PC14-OSCX_IN (PC14)	I/O	FT	-	USART1_TX, TIM1_ETR, TIM1_BKIN2_IR_OUT, USART2_RTS_DE, CK, TIM17_CH1, TIM3_CH2, I2C1_SDA, EVENTOUT	OSCX_IN
1			PC15-OSCX_OUT (PC15)	I/O	FT	-	OSC32_EN, OSC_EN, TIM1_ETR, TIM3_CH3	OSCX_OUT
2			VDD/VDDA	S	-	-	-	-
3			VSS/VSSA	S	-	-	-	-
4			PF2-NRST	I/O	-	-	MCO, TIM1_CH4	NRST
5			PA0	I/O	FT	-	USART2_CTS, TIM16_CH1, USART1_TX, TIM1_CH1	ADC_IN0, WKUP1
6			PA1	I/O	FT	-	SP1_SCK/I2S1_CK, USART2_RTS_DE, CK, TIM17_CH1, USART1_RX, TIM1_CH2, I2C1_SMBA, EVENTOUT	ADC_IN1
7			PA2	I/O	FT	-	SP1_MOSI/I2S1_SD, USART2_TX, TIM16_CH1N, TIM3_ETR, TIM1_CH3	ADC_IN2, WKUP4, LSCO
8			PA3	I/O	FT	-	USART2_RX, TIM1_CH1N, TIM1_CH4, EVENTOUT	ADC_IN3
9			PA4	I/O	FT	-	SP1_NSS/I2S1_WS, USART2_TX, TIM1_CH2N, TIM14_CH1, TIM17_CH1N, EVENTOUT	ADC_IN4, RTC_TCS, RTC_OUT1, WKUP2
10			PA5	I/O	FT	-	SP1_SCK/I2S1_CK, USART2_RX, TIM1_CH3N, TIM1_CH1, EVENTOUT	ADC_IN5
11			PA6	I/O	FT	-	SP1_MISO/I2S1_MCK, TIM3_CH1, TIM1_BKIN, TIM16_CH1	ADC_IN6
12			PA7	I/O	FT	-	SP1_MOSI/I2S1_SD, TIM3_CH2, TIM1_CH1N, TIM14_CH1, TIM17_CH1	ADC_IN7
13			PA8	I/O	FT	-	MCO, USART2_TX, TIM1_CH1, EVENTOUT, SP1_NSS/I2S1_WS, TIM1_CH2N, TIM1_CH3N, TIM3_CH3, TIM3_CH4, TIM14_CH1, USART1_RX, MC02	ADC_IN8
-			PA9	I/O	FT	(1)	MCO, USART1_TX, TIM1_CH2, TIM3_ETR, I2C1_SCL, EVENTOUT	-
-			PA10	I/O	FT	(1)	USART1_RX, TIM1_CH3, MC02, TIM17_BKIN, I2C1_SDA, EVENTOUT	-
14			PA11 [PA9]	I/O	FT	(1)	SP1_MISO/I2S1_MCK, USART1_CTS, TIM1_CH4, TIM1_BKIN2	ADC_IN11
15			PA12 [PA10]	I/O	FT	(1)	SP1_MOSI/I2S1_SD, USART1_RTS_DE, CK, TIM1_ETR, I2S_CKIN	ADC_IN12
16			PA13	I/O	FT	(2)	SWDIO, IR_OUT, TIM3_ETR, USART2_RX, EVENTOUT	ADC_IN13
17			PA14-BOOT0	I/O	FT	(2)	SWCLK, USART2_TX, EVENTOUT, SP1_NSS/I2S1_WS, USART2_RX, TIM1_CH1, MC02, USART1_RTS_DE, CK	ADC_IN14, BOOT0
18			PB6	I/O	FT	-	USART1_TX, TIM1_CH3, TIM16_CH1N, TIM3_CH3, USART1_RTS_DE, CK, USART1_CTS, I2C1_SCL, I2C1_SMA, SP1_MOSI/I2S1_SD, SP1_MISO/I2S1_MCK, SP1_SCK/I2S1_CK, TIM1_CH2, TIM3_CH1, TIM3_CH2, TIM16_BKIN, TIM17_BKIN	WKUP3
19			PB7	I/O	FT	-	USART1_RX, TIM1_CH4, TIM17_CH1N, TIM3_CH4, I2C1_SDA, EVENTOUT, USART2_CTS, TIM16_CH1, TIM3_CH1, I2C1_SCL	RTC_REFIN



A

A

B

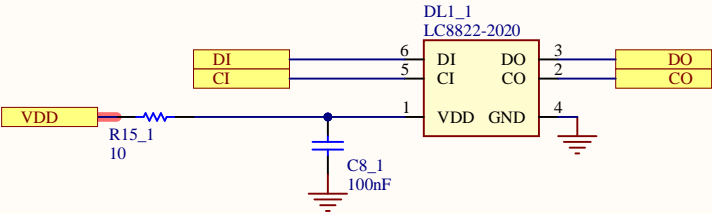
B

C

C

D

D

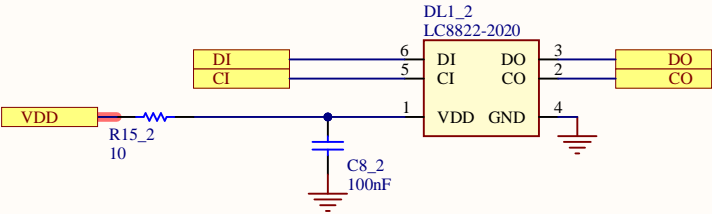


Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice.

Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

Title: *				
ID: ABX00109		Version: V0.3		
Date: 27/06/2024	Time: 16:25:12	Sheet 3 of 3	Author: Silvio Navaretti	
File: RGBLED.SchDoc		RevAuthor: Silvio Navaretti		



Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice.

Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

Title: *				
ID: ABX00109	Version: V0.3			
Date: 27/06/2024	Time: 16:25:13	Sheet 3 of 3		
File: RGBLED.SchDoc		Author: Silvio Navaretti	RevAuthor: Silvio Navaretti	

A

B

C

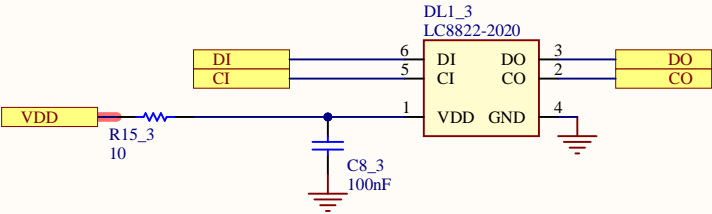
D

A

B

C

D



Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.
Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice.
Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

Title: *				
ID: ABX00109		Version: V0.3		
Date: 27/06/2024	Time: 16:25:13	Sheet 3 of 3	Author: Silvio Navaretti	
File: RGBLED.SchDoc		RevAuthor: Silvio Navaretti		

A

B

C

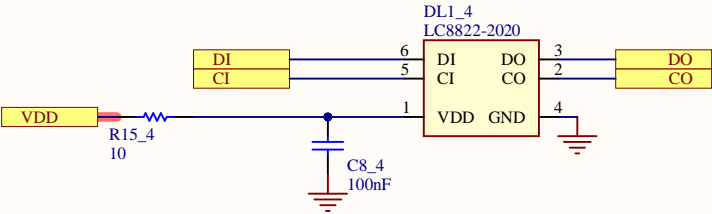
D

A

B

C

D

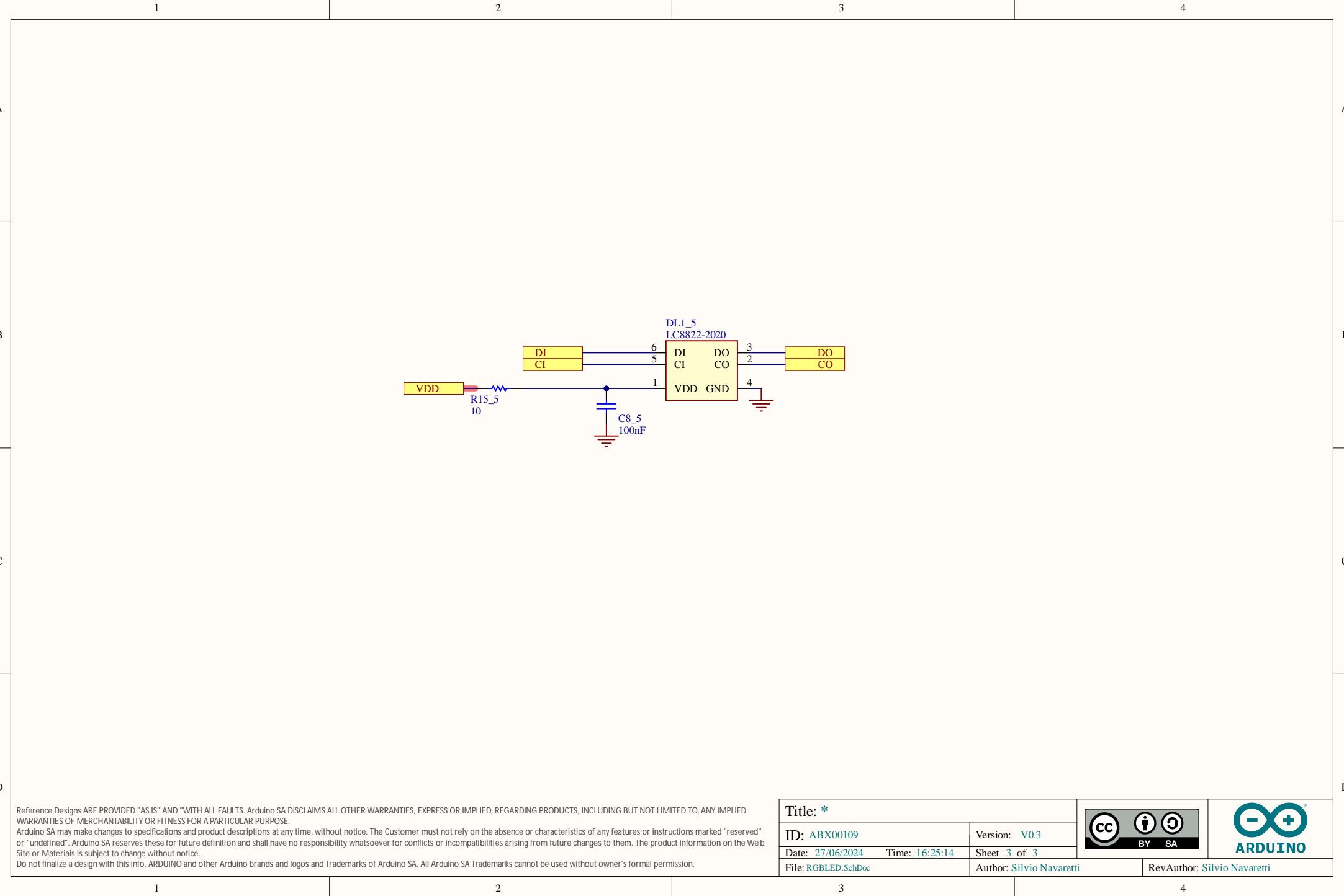


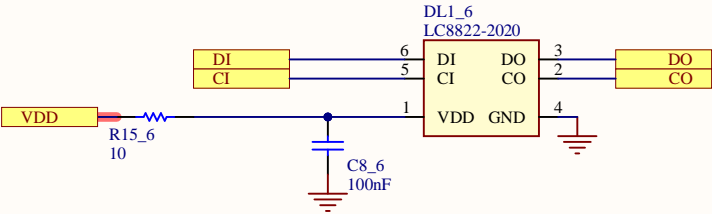
Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice.

Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

Title: *				
ID: ABX00109	Version: V0.3			
Date: 27/06/2024	Time: 16:25:14	Sheet 3 of 3		
File: RGBLED.SchDoc		Author: Silvio Navaretti	RevAuthor: Silvio Navaretti	



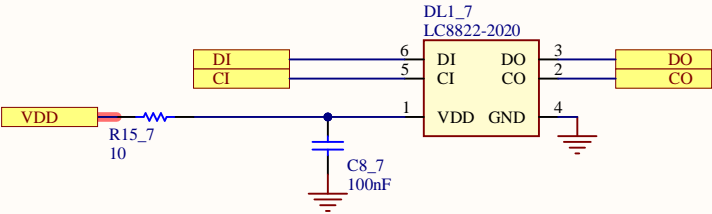


Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice.

Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

Title: *				
ID: ABX00109	Version: V0.3			
Date: 27/06/2024	Time: 16:25:15	Sheet 3 of 3		
File: RGBLED.SchDoc		Author: Silvio Navaretti	RevAuthor: Silvio Navaretti	



Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice.

Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

Title: *				
ID: ABX00109		Version: V0.3		
Date: 27/06/2024	Time: 16:25:15	Sheet 3 of 3		
File: RGBLED.SchDoc		Author: Silvio Navaretti	RevAuthor: Silvio Navaretti	

A

B

C

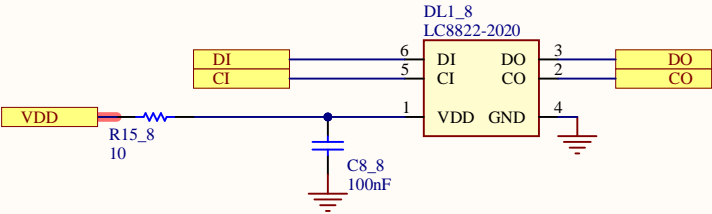
D

A

B

C

D



Reference Designs ARE PROVIDED "AS IS" AND "WITH ALL FAULTS. Arduino SA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, REGARDING PRODUCTS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.
Arduino SA may make changes to specifications and product descriptions at any time, without notice. The Customer must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Arduino SA reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The product information on the Web Site or Materials is subject to change without notice.
Do not finalize a design with this info. ARDUINO and other Arduino brands and logos and Trademarks of Arduino SA. All Arduino SA Trademarks cannot be used without owner's formal permission.

Title: *					
ID: ABX00109		Version: V0.3			
Date: 27/06/2024	Time: 16:25:16	Sheet 3 of 3	Author: Silvio Navaretti		RevAuthor: Silvio Navaretti
File: RGBLED.SchDoc					