Gastroscopy Controller

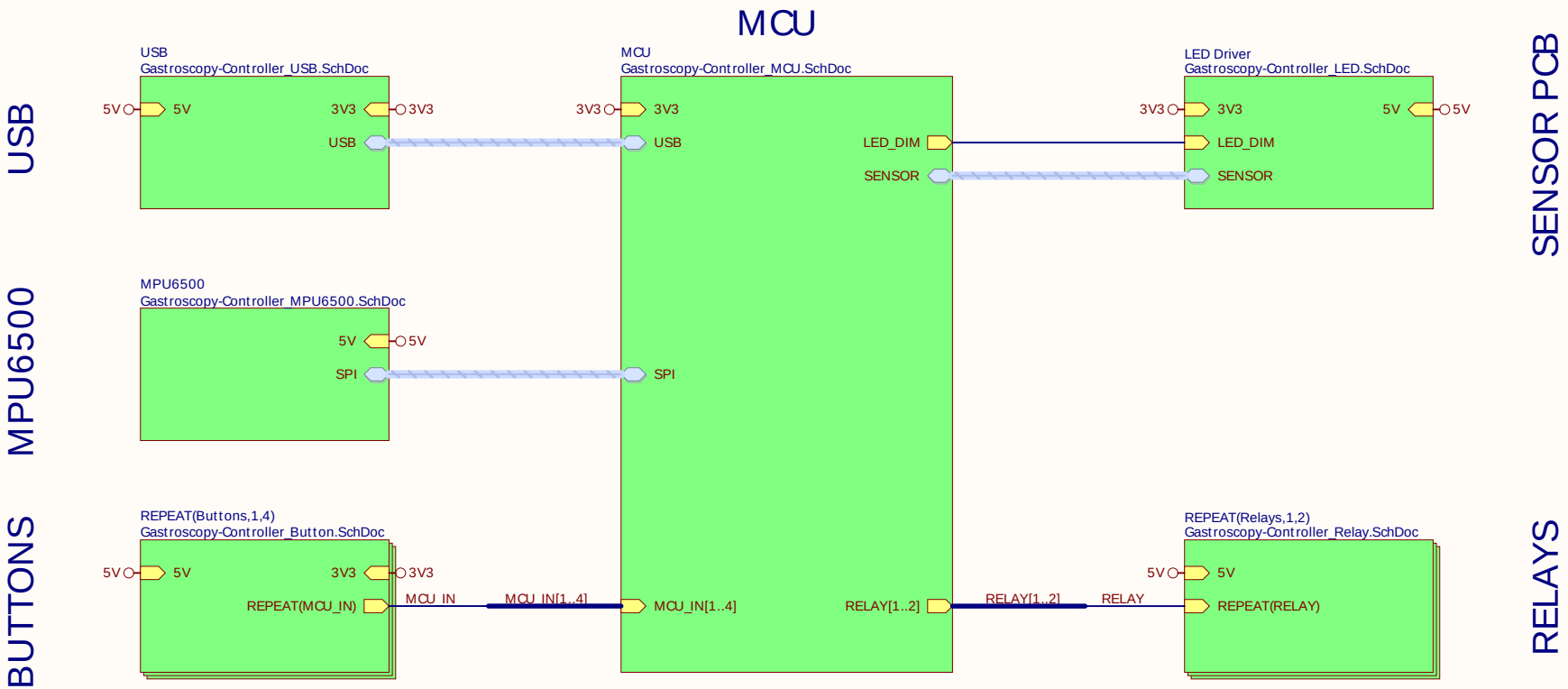
Gastroscopy Controller

09.11.2022

Overview
Gastroscopy-Controller_Overview.SchDoc

Company:	MRobot, LCC
Project:	Gastroscopy Controller
Jira Key:	GSTRCNTRL

REVISION	DESCRIPTION	DATE	ECO	ENGINEER
0.1.0	Prototype	10/17/2022	0000	Podlesnyi V.S.



Title: Overview			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99
Project: Gastroscopy Controller			
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii
Date: 09.11.2022 Time: 8:08:55		Sheet 2 of 12	
File: Gastroscopy-Controller_Overview.SchDoc			

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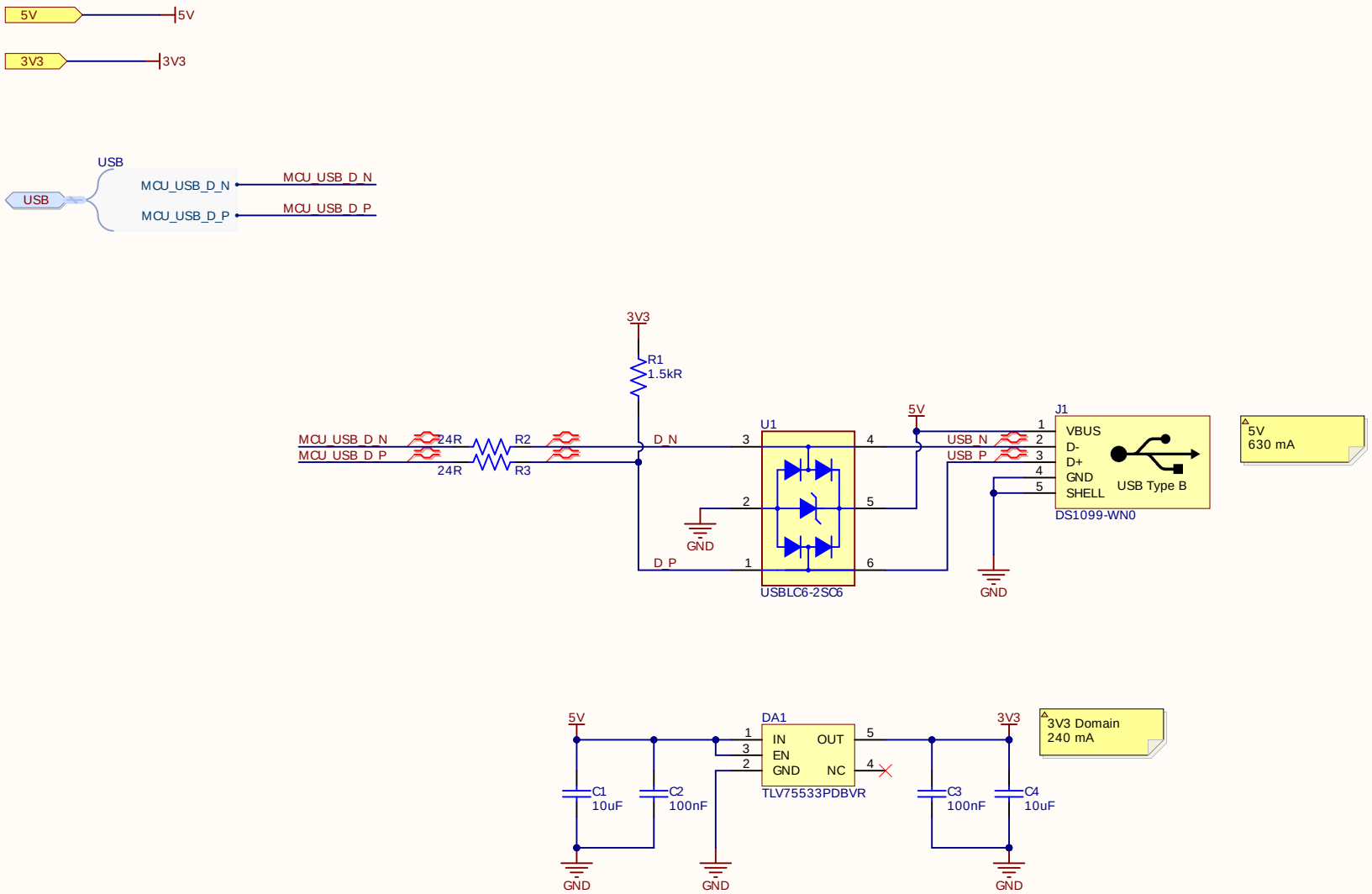

Title: USB			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99
Project: Gastroscopy Controller			
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii
Date: 09.11.2022 Time: 8:08:55		Sheet 3 of 12	
File: Gastroscopy-Controller_USB.SchDoc			

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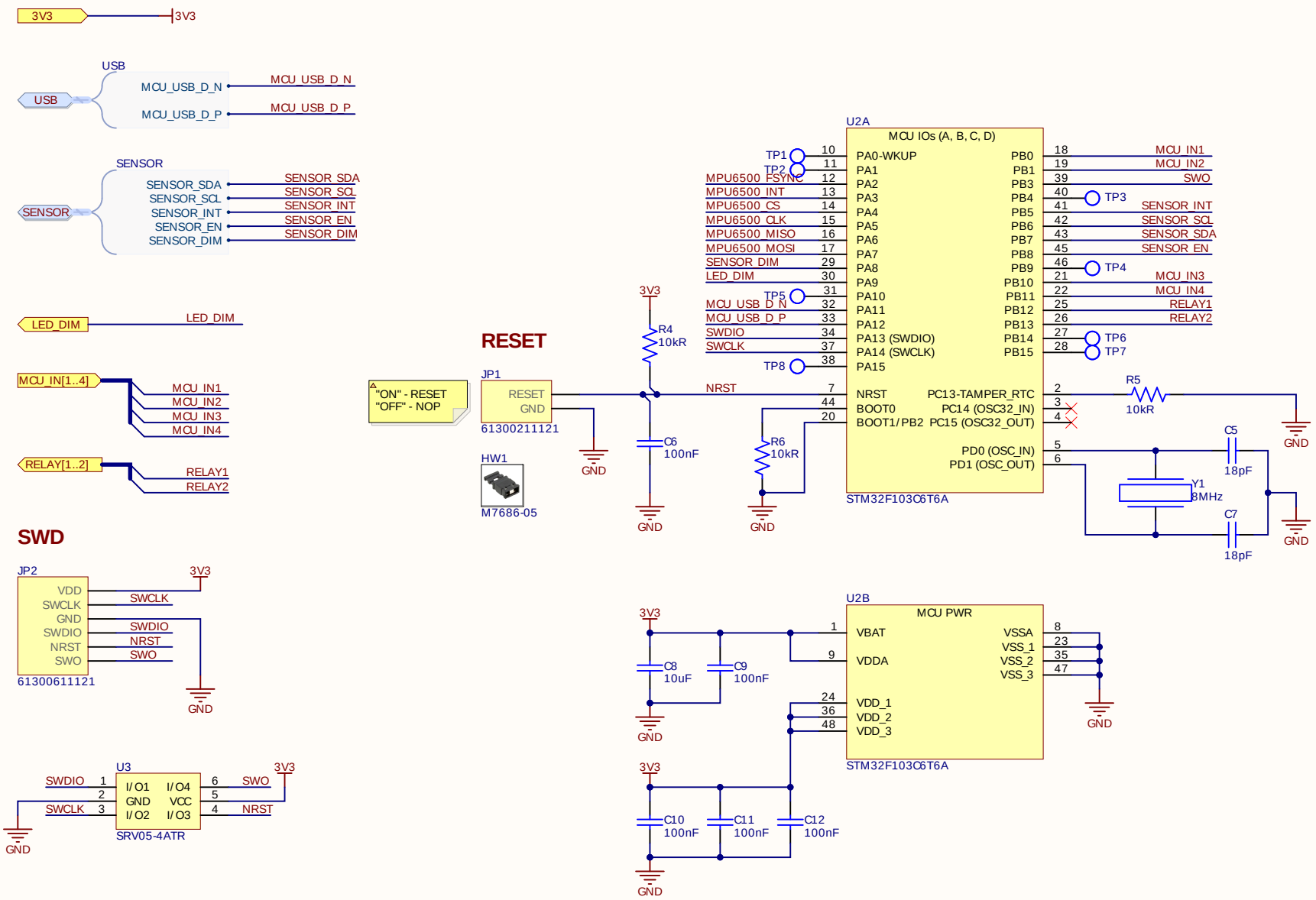
3V3
3V3
USB
USB
MCU_USB_D_N
MCU_USB_D_P
MCU_USB_D_N
MCU_USB_D_P
SENSOR
SENSOR
SENSOR_SDA
SENSOR_SCL
SENSOR_INT
SENSOR_EN
SENSOR_DIM
SENSOR_SDA
SENSOR_SCL
SENSOR_INT
SENSOR_EN
SENSOR_DIM
LED_DIM
LED_DIM
MCU_IN[1..4]
MCU_IN1
MCU_IN2
MCU_IN3
MCU_IN4
RELAY[1..2]
RELAY1
RELAY2
SWD
JP2
VDD
SWCLK
GND
SWDIO
NRST
SWO
61300611121
3V3
SWCLK
SWDIO
NRST
SWO
GND
U3
SWDIO
SWCLK
I/O1
GND
I/O2
I/O4
VCC
I/O3
SWO
NRST
3V3
SRV05-4ATR
GND
SPI
SPI
MPU6500_MOSI
MPU6500_MISO
MPU6500_CLK
MPU6500_CS
MPU6500_INT
MPU6500_FSYNC
MPU6500_MOSI
MPU6500_MISO
MPU6500_CLK
MPU6500_CS
MPU6500_INT
MPU6500_FSYNC
RESET
"ON" - RESET
"OFF" - NOP
JP1
RESET
GND
61300211121
HW1
M7680-05
3V3
R4
10kR
C6
100nF
GND
NRST
R6
10kR
GND
U2A
MCU IOs (A, B, C, D)
TP1
TP2
MPU6500_FSYNC
MPU6500_INT
MPU6500_CS
MPU6500_CLK
MPU6500_MISO
MPU6500_MOSI
SENSOR_DIM
LED_DIM
TP5
MCU_USB_D_N
MCU_USB_D_P
SWDIO
SWCLK
TP8
PA0-WKUP
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13 (SWDIO)
PA14 (SWCLK)
PA15
NRST
BOOT0
BOOT1/PB2
PC13-TAMPER_RTC
PC14 (OSC32_IN)
PC15 (OSC32_OUT)
PD0 (OSC_IN)
PD1 (OSC_OUT)
PB0
PB1
PB3
PB4
PB5
PB6
PB7
PB8
PB9
PB10
PB11
PB12
PB13
PB14
PB15
TP3
TP4
TP6
TP7
MCU_IN1
MCU_IN2
SWO
SENSOR_INT
SENSOR_SCL
SENSOR_SDA
SENSOR_EN
MCU_IN3
MCU_IN4
RELAY1
RELAY2
STM32F103C6T6A
R5
10kR
GND
C5
18pF
Y1
8MHz
C7
18pF
GND
U2B
MCU PWR
VBAT
VDDA
VDD_1
VDD_2
VDD_3
VSSA
VSS_1
VSS_2
VSS_3
STM32F103C6T6A
3V3
C8
10uF
C9
100nF
GND
3V3
C10
100nF
C11
100nF
C12
100nF
GND
GND
Title: MCU
Project: Gastroscopy Controller
Size A
Number: 0000-0000
Revision 0.1.0
Date: 09.11.2022 Time: 8:08:55
Sheet 4 of 12
File: Gastroscopy-Controller MCU.SchDoc
MRobot, LCC
nab. reki Karpovki, d. 5/3E
Saint-Petersburg, 197022
Ph: +7 (911) 701-51-99
Engineer:
Podlesnyi Vasilii
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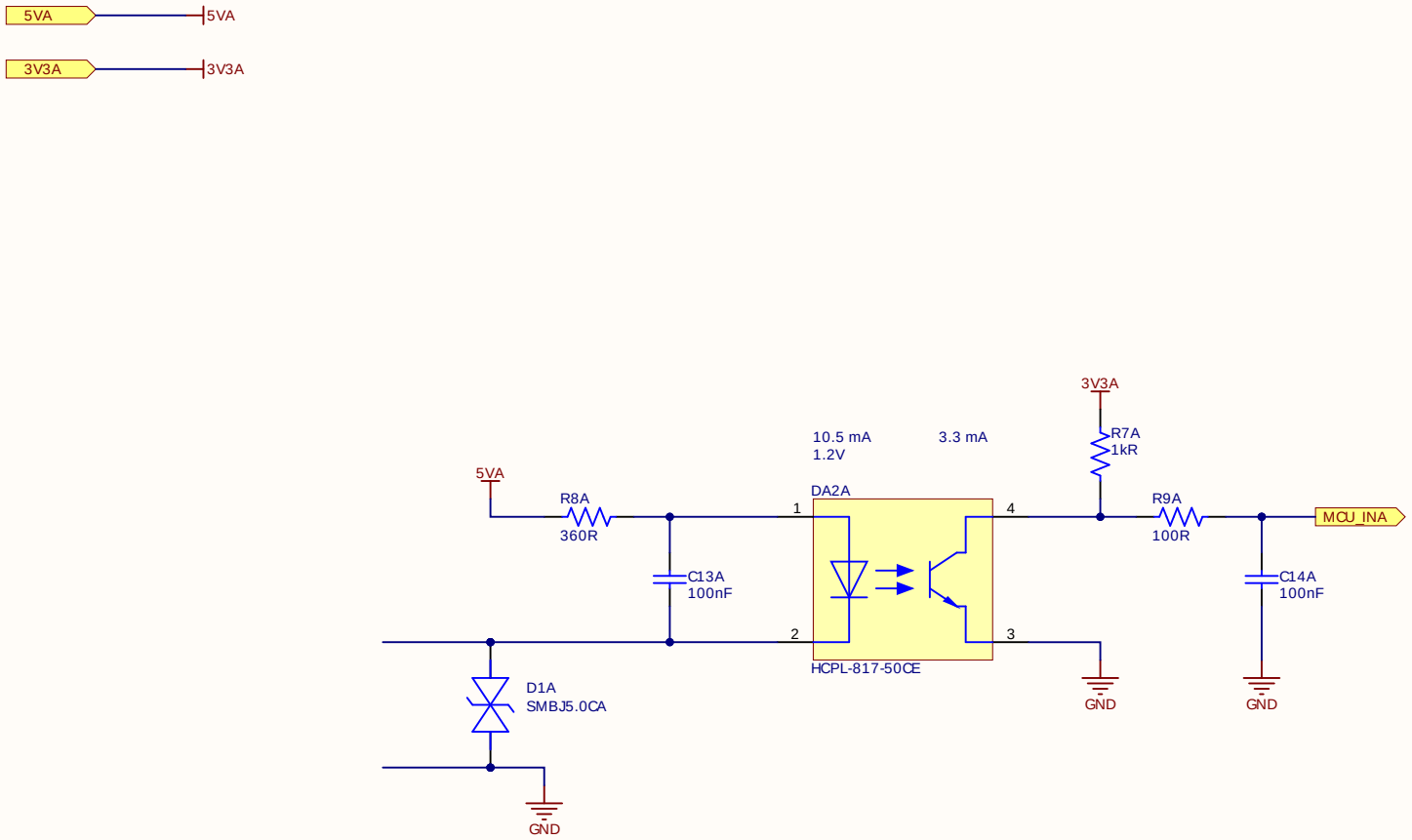

Title: Buttons			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99
Project: Gastroscopy Controller			
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii
Date: 09.11.2022 Time: 8:08:56		Sheet 5.1of 12	
File: Gastroscopy-Controller Button.SchDoc			

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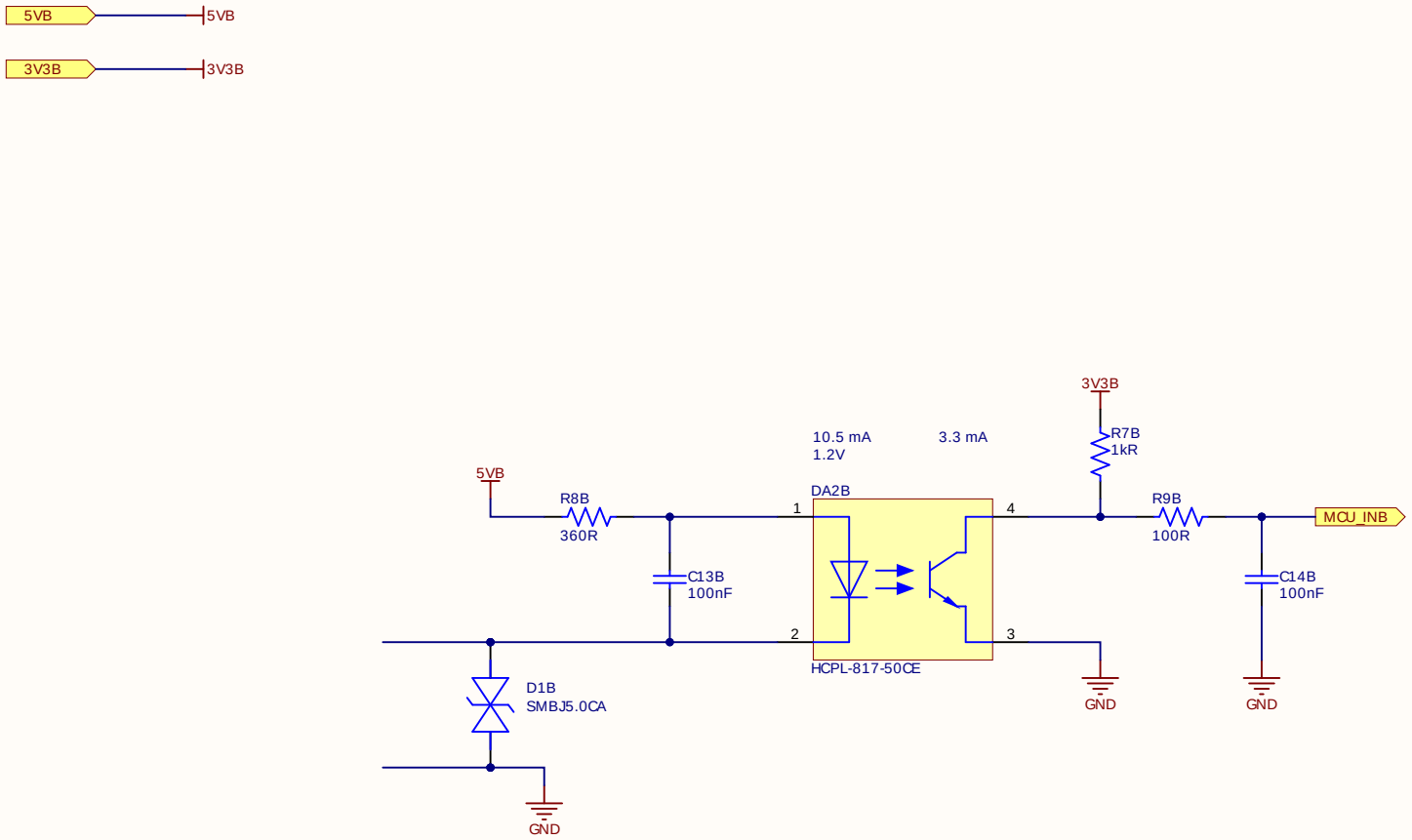

Title: Buttons			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99
Project: Gastroscopy Controller			
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii
Date: 09.11.2022 Time: 8:08:56		Sheet 5.2of 12	
File: Gastroscopy-Controller Button.SchDoc			

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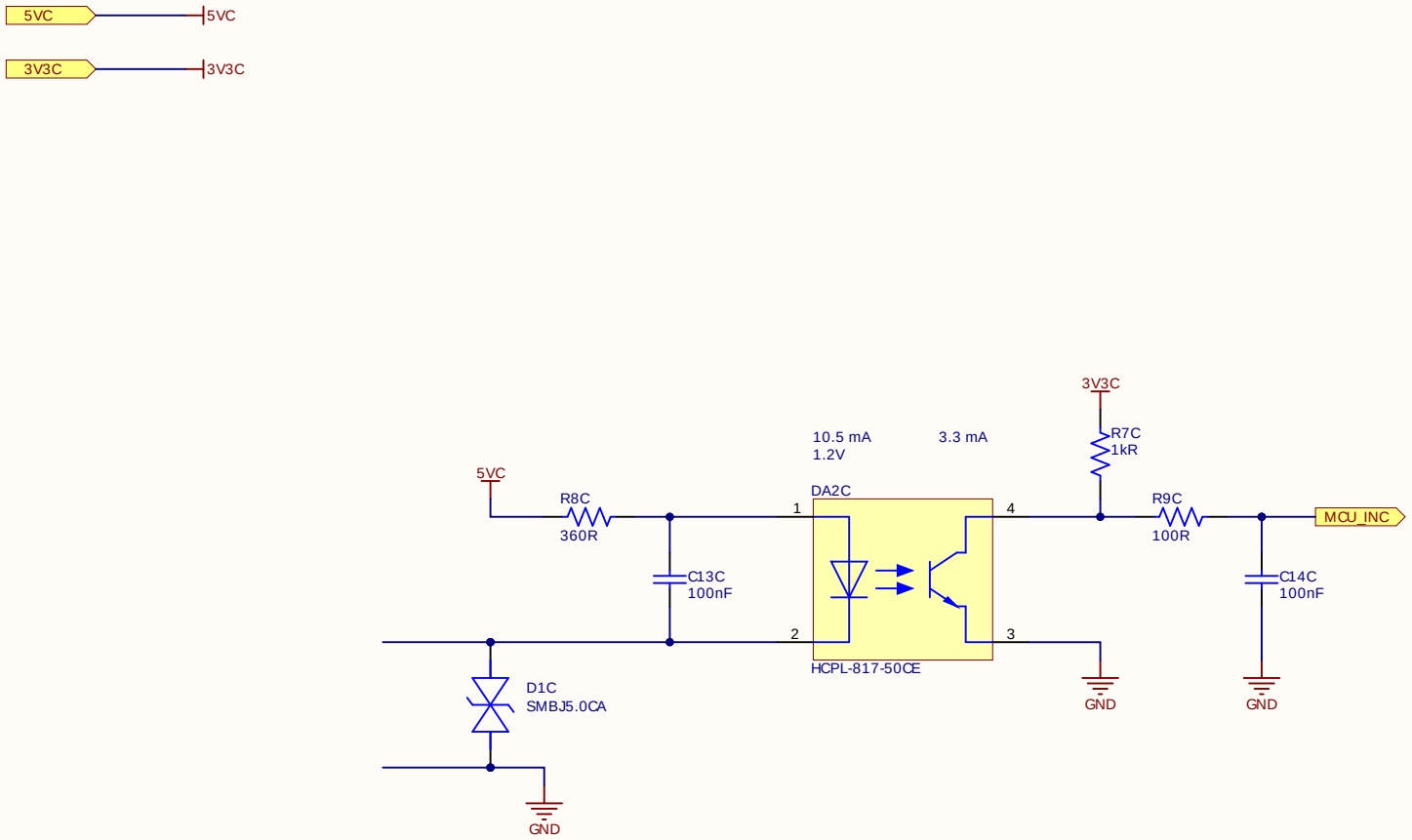

Title: Buttons			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99
Project: Gastroscopy Controller			
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii
Date: 09.11.2022 Time: 8:08:56		Sheet 5.3of 12	
File: Gastroscopy-Controller Button.SchDoc			

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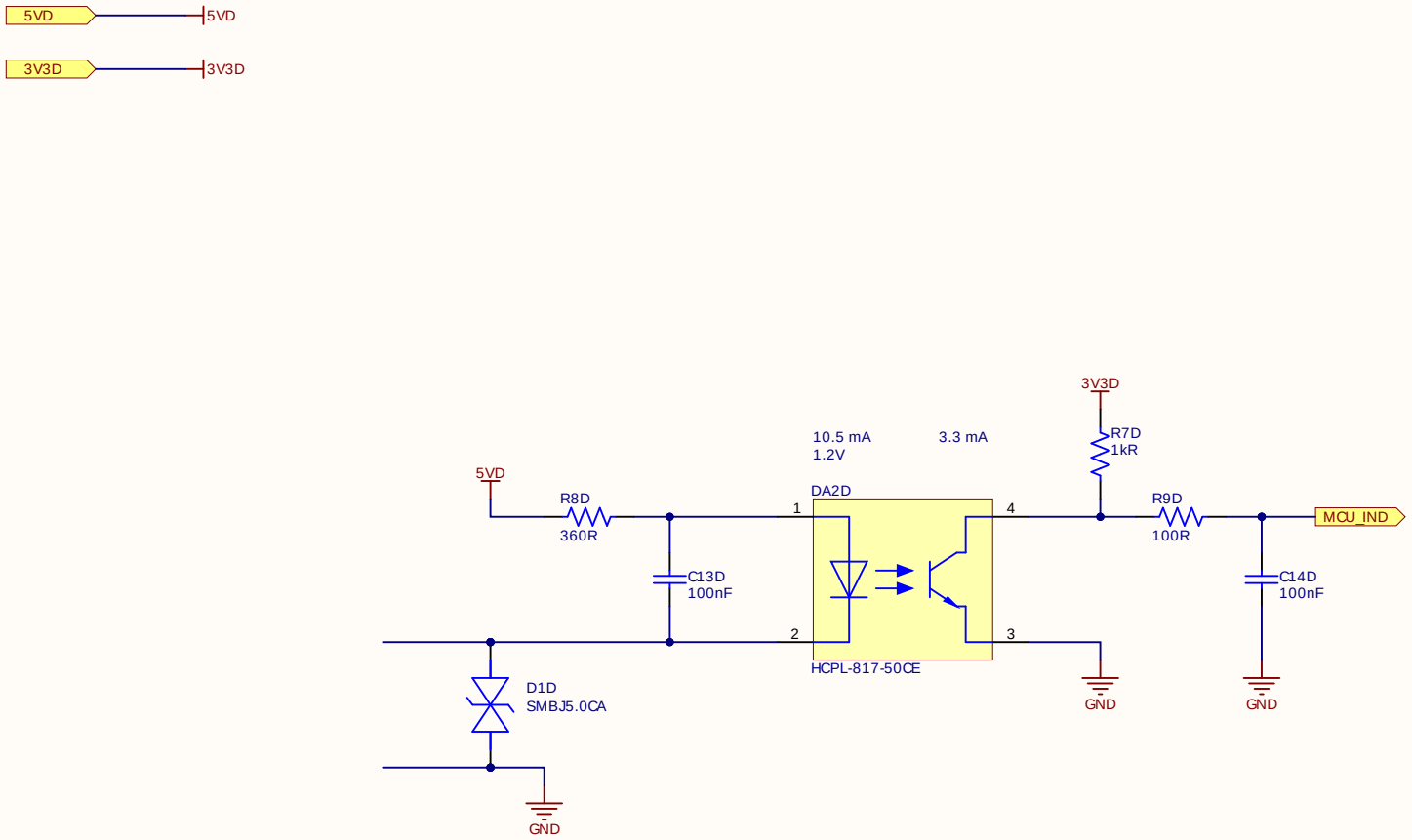

Title: Buttons			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99
Project: Gastroscopy Controller			
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii
Date: 09.11.2022 Time: 8:08:56		Sheet 5.4of 12	
File: Gastroscopy-Controller Button.SchDoc			

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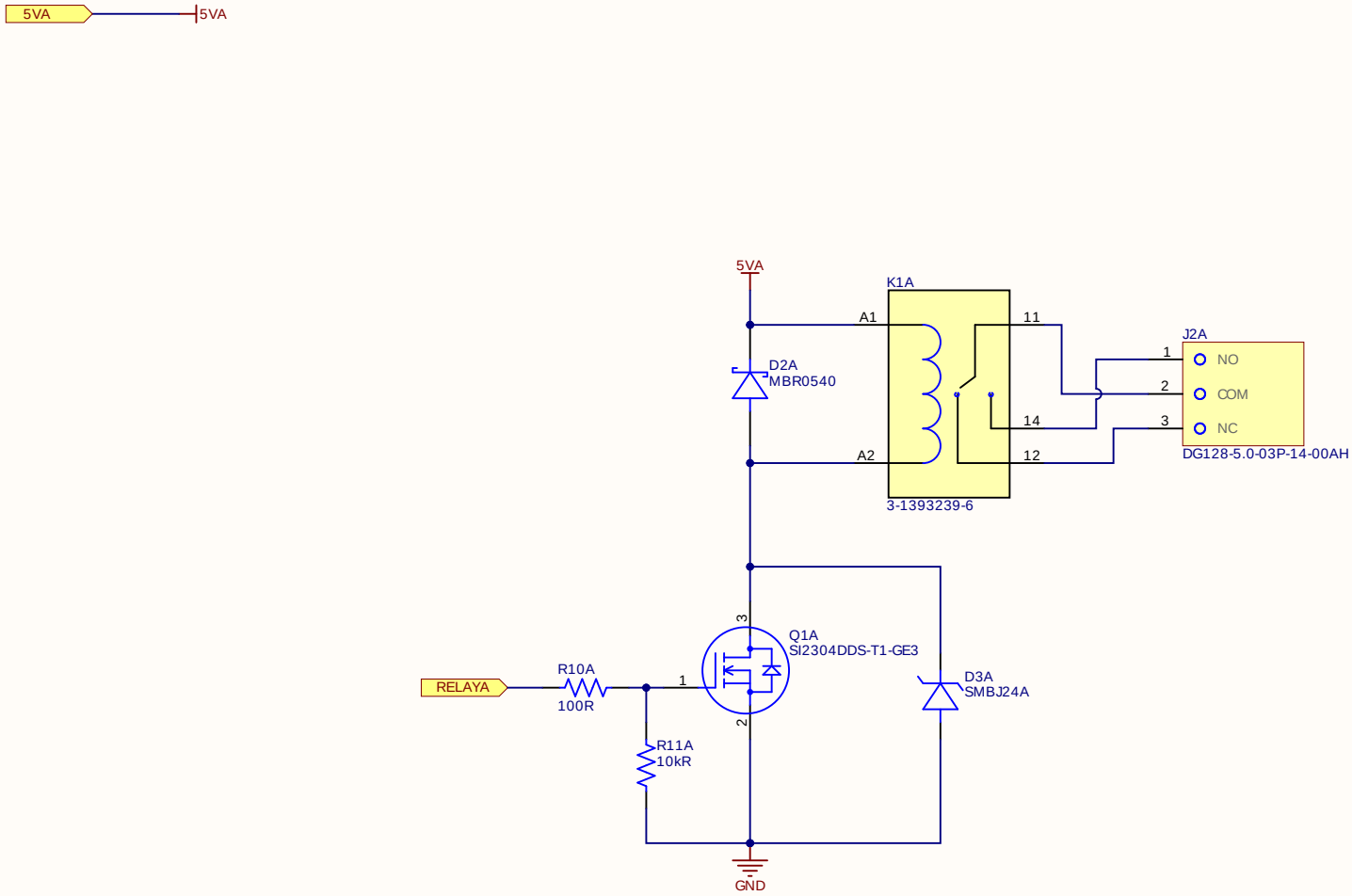

Title: Relays			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99
Project: Gastroscopy Controller			
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii
Date: 09.11.2022 Time: 8:08:56		Sheet 6.1 of 12	
File: Gastroscopy-Controller_Relay.SchDoc			

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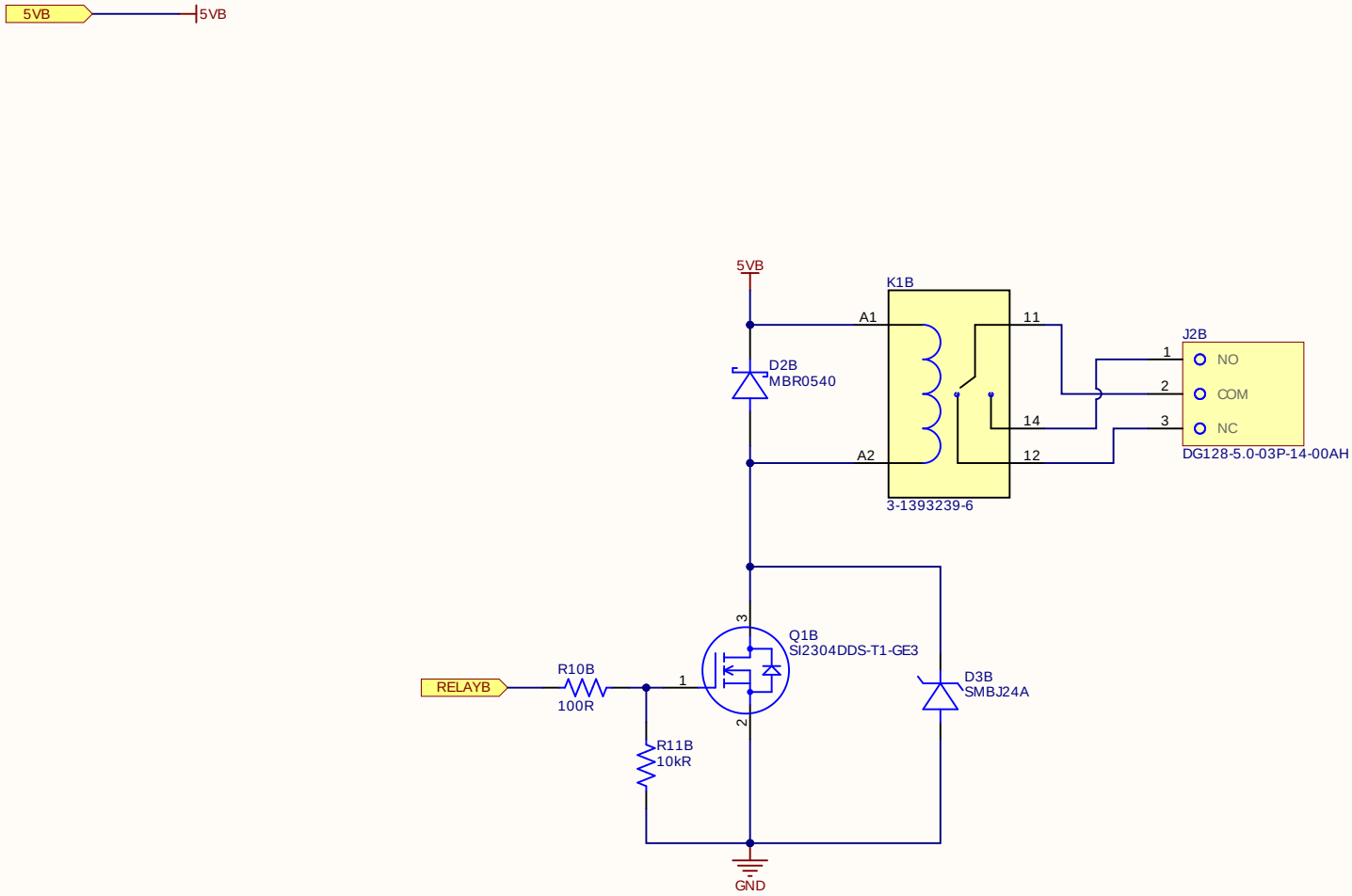

Title: Relays			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99
Project: Gastroscopy Controller			
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii
Date: 09.11.2022 Time: 8:08:56		Sheet 6.2of 12	
File: Gastroscopy-Controller Relay.SchDoc			

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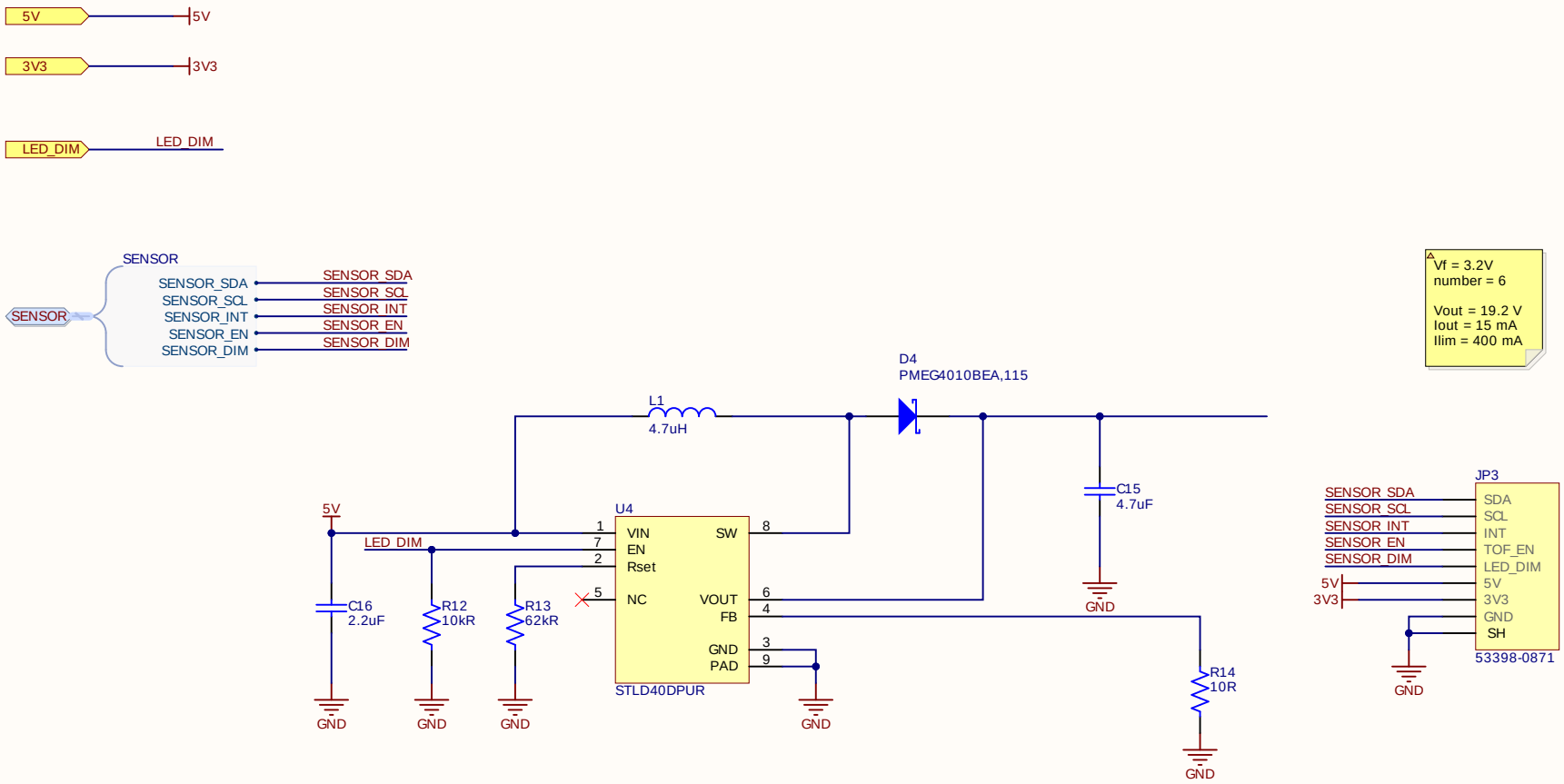

Title: LED Driver			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99
Project: Gastroscopy Controller			
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii
Date: 09.11.2022 Time: 8:08:56		Sheet 7 of 12	
File: Gastroscopy-Controller LED.SchDoc			

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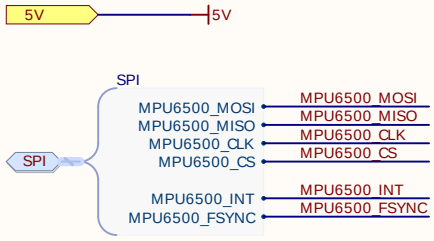

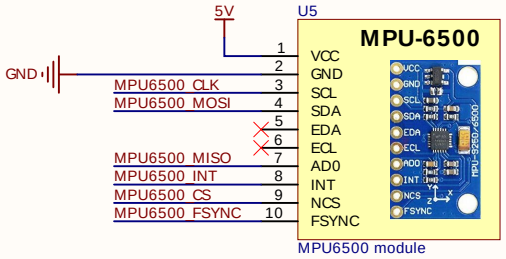

Title: MPU6500			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99
Project: Gastroscopy Controller			
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii
Date: 09.11.2022 Time: 8:08:56		Sheet 8 of 12	
File: Gastroscopy-Controller MPU6500.SchDoc			

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