Gastroscopy Controller

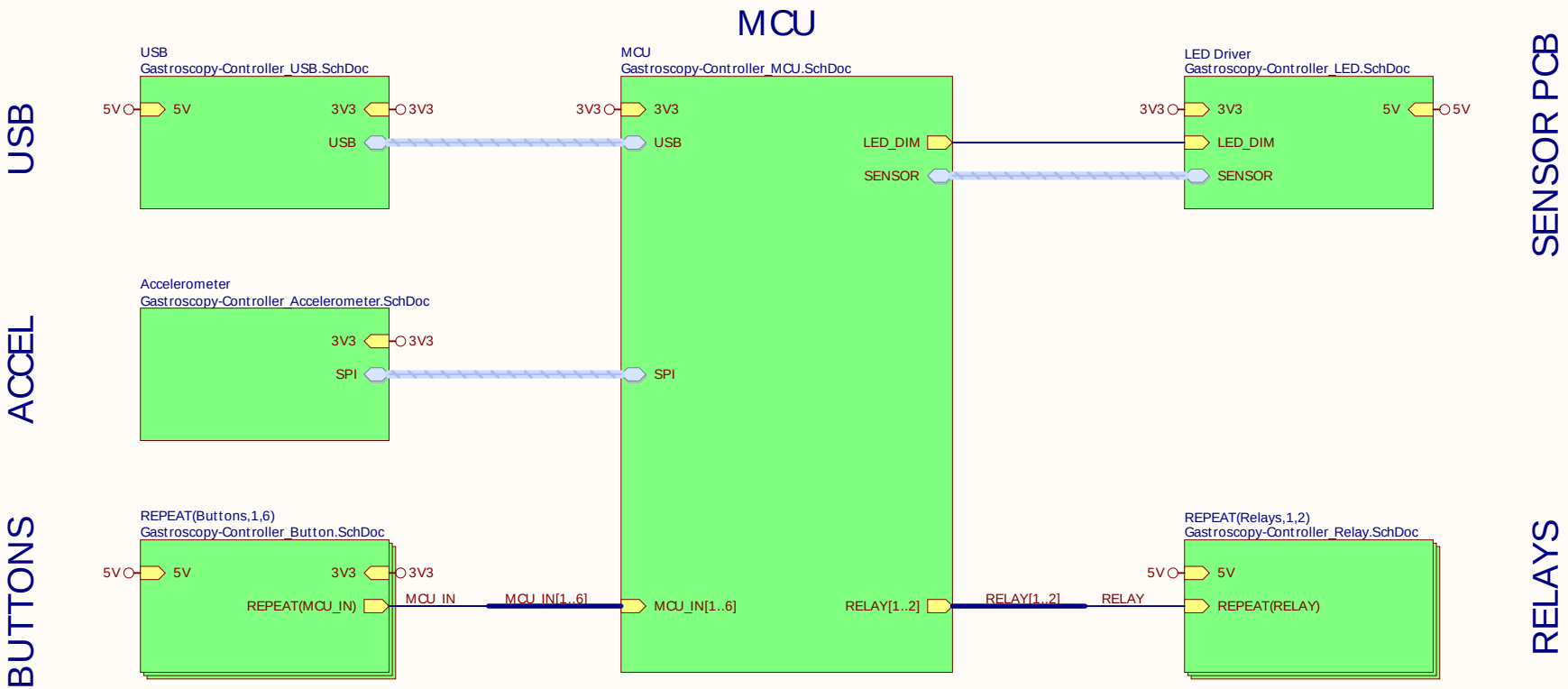
Gastroscopy Controller

16.11.2022

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: 16.11.2022 Time: 14:17:24		Sheet 2 of 14	
File: Gastroscopy-Controller_Overview.SchDoc			

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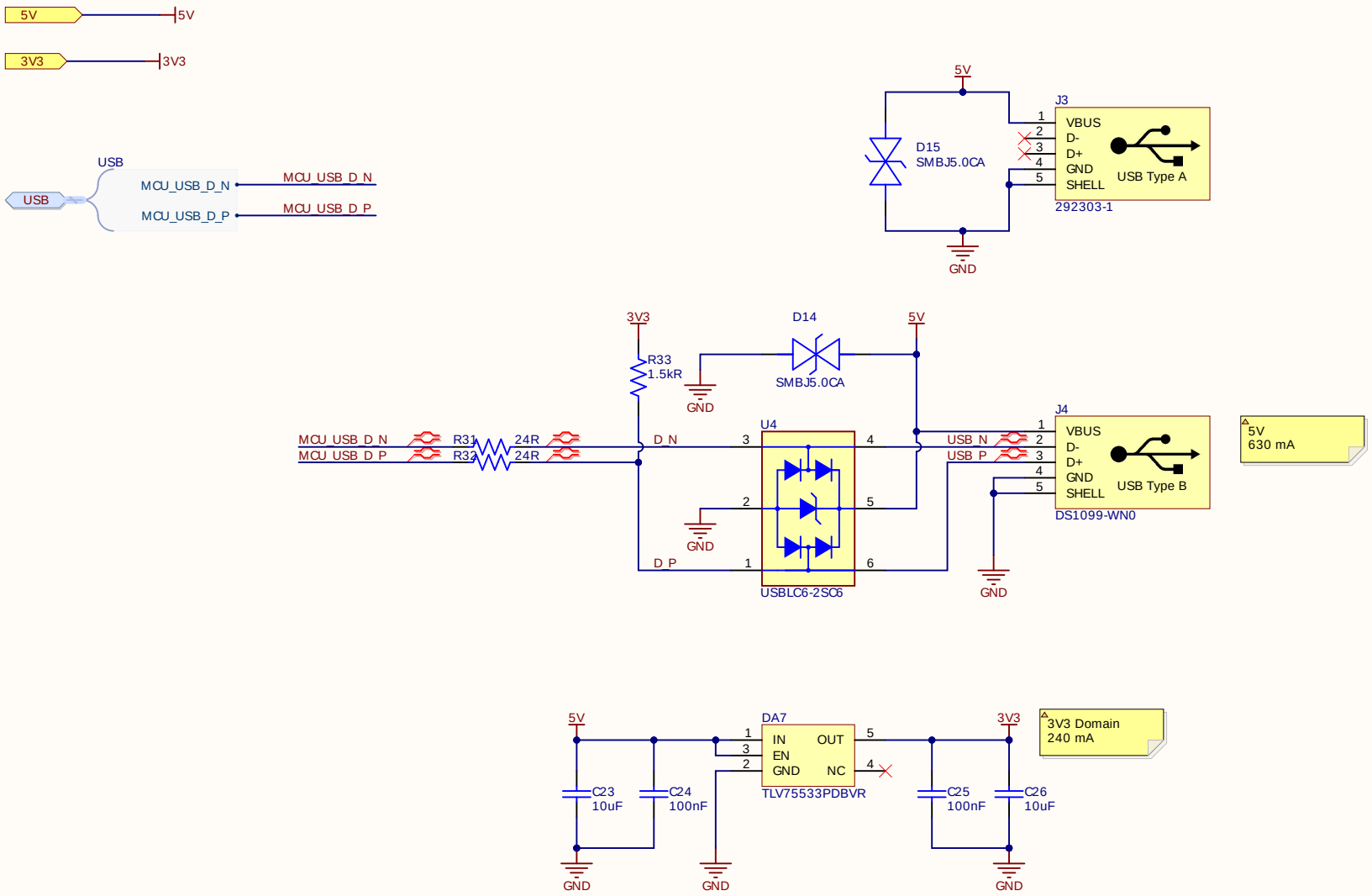

Title: USB			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99
Project: Gastroscopy Controller			
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii
Date: 16.11.2022 Time: 14:17:24		Sheet 3 of 14	
File: Gastroscopy-Controller_USB.SchDoc			

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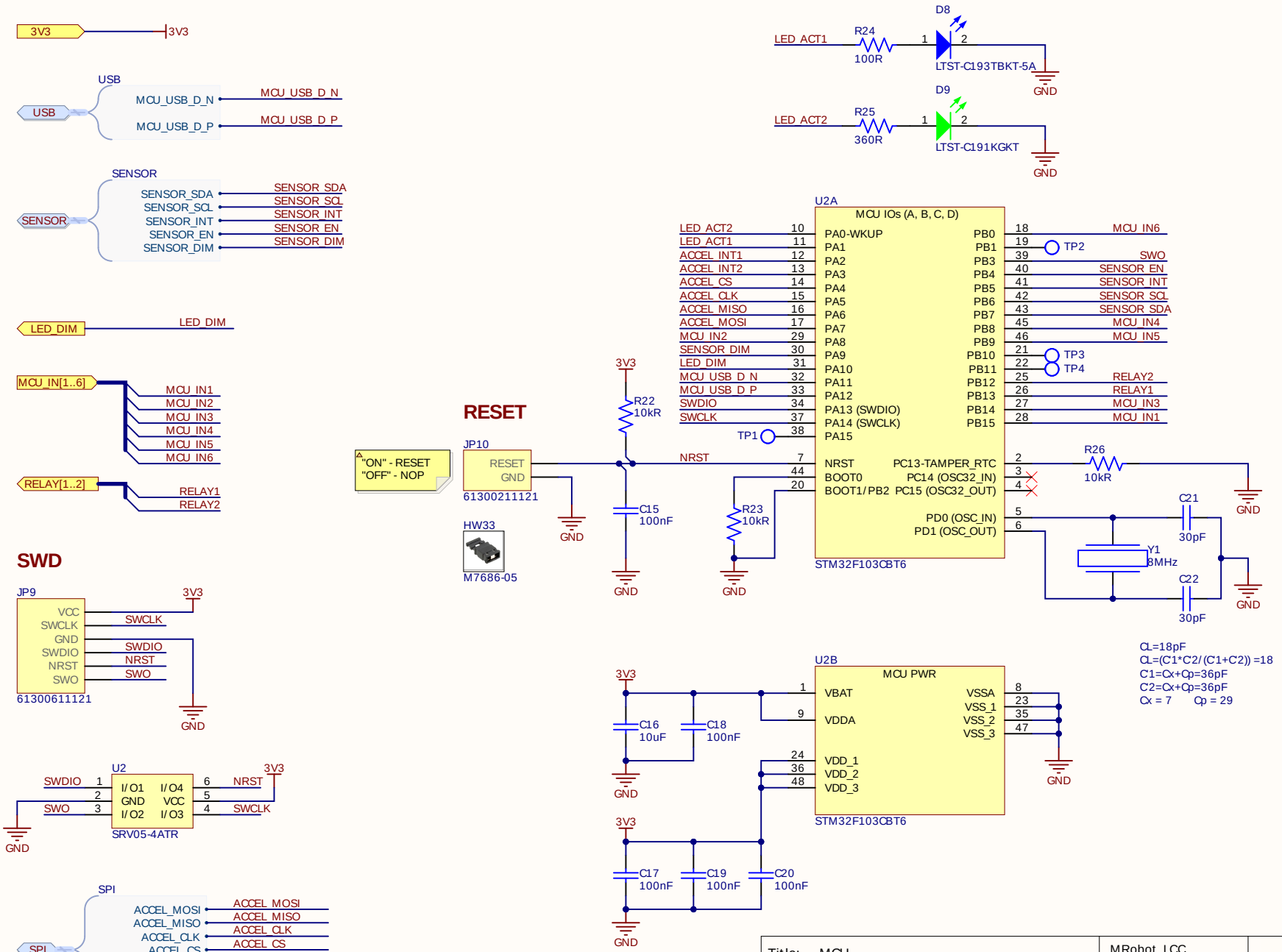
3V3
USB
MCU_USB_D_N
MCU_USB_D_P
SENSOR
SENSOR_SDA
SENSOR_SCL
SENSOR_INT
SENSOR_EN
SENSOR_DIM
LED_DIM
MCU_IN[1..6]
MCU_IN1
MCU_IN2
MCU_IN3
MCU_IN4
MCU_IN5
MCU_IN6
RELAY[1..2]
RELAY1
RELAY2
SWD
JP9
VCC
SWCLK
GND
SWDIO
NRST
SWO
61300611121
U2
I/O1
I/O2
I/O3
I/O4
VCC
SRV05-4ATR
SPI
ACCEL_MOSI
ACCEL_MISO
ACCEL_CLK
ACCEL_CS
ACCEL_INT1
ACCEL_INT2
RESET
"ON" - RESET
"OFF" - NOP
JP10
61300211121
HW33
M7686-05
R22
10kR
C15
100nF
R23
10kR
NRST
LED_ACT1
LED_ACT2
R24
100R
R25
360R
D8
D9
LTST-C193TBKT-5A
LTST-C191KGKT
U2A
MCU IOs (A, B, C, D)
PA0-WKUP
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13 (SWDIO)
PA14 (SWCLK)
PA15
PB0
PB1
PB3
PB4
PB5
PB6
PB7
PB8
PB9
PB10
PB11
PB12
PB13
PB14
PB15
PC13-TAMPER_RTC
PC14 (OSC32_IN)
PC15 (OSC32_OUT)
PD0 (OSC_IN)
PD1 (OSC_OUT)
BOOT0
BOOT1/PB2
TP1
TP2
TP3
TP4
R26
10kR
C21
30pF
C22
30pF
Y1
8MHz
CL=18pF
CL=(C1*C2/(C1+C2)) =18
C1=Cx+Cp=36pF
C2=Cx+Cp=36pF
Cx = 7
Cp = 29
STM32F103C8T6
U2B
MCU PWR
VBAT
VDDA
VSSA
VSS_1
VSS_2
VSS_3
VDD_1
VDD_2
VDD_3
C16
10uF
C18
100nF
C17
100nF
C19
100nF
C20
100nF
Title: MCU
Project: Gastroscopy Controller
Size A
Number: 0000-0000
Revision 0.1.0
Date: 16.11.2022 Time: 14:17:24
Sheet 4 of 14
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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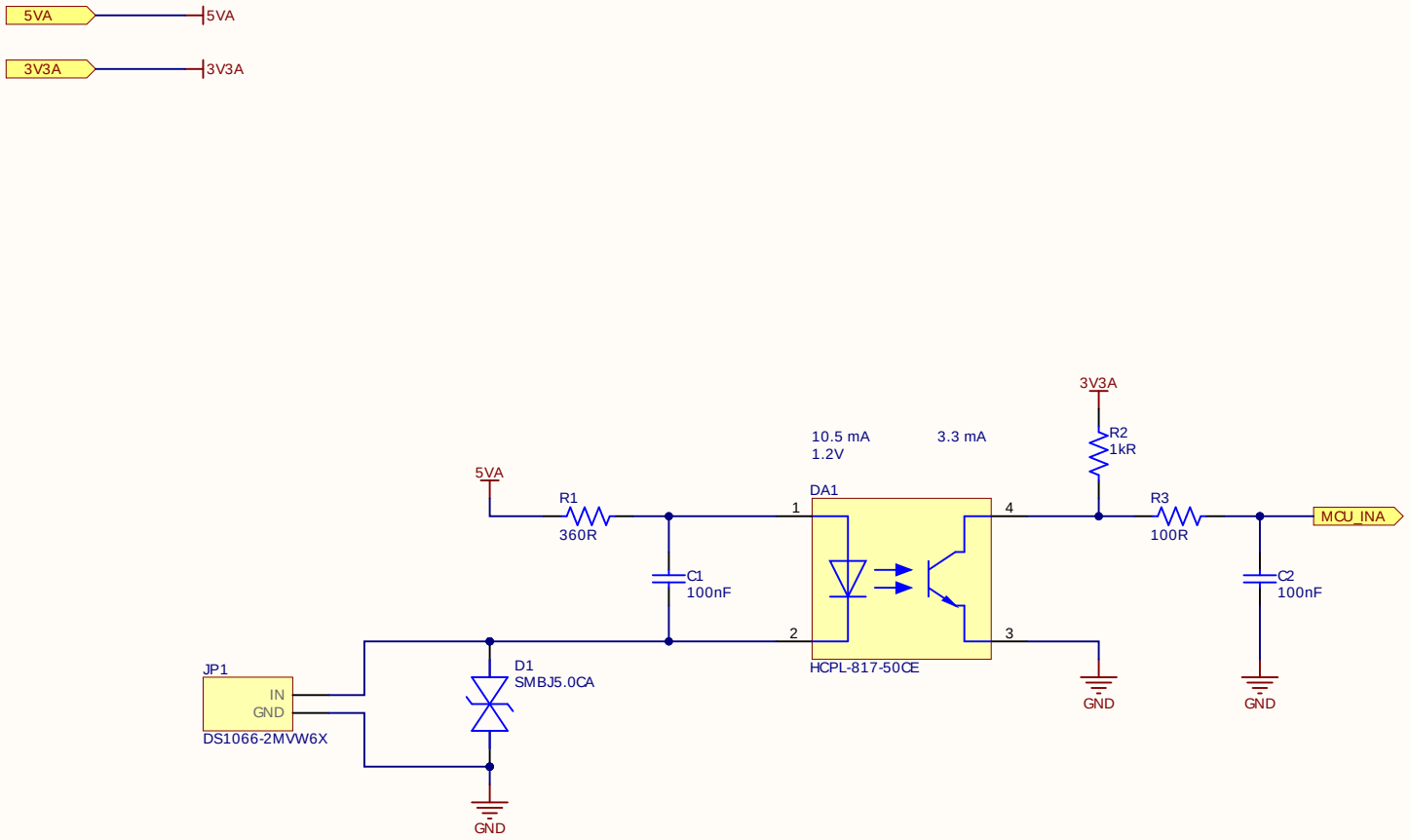

ADDITIONAL PARTS

HW1
DS1066-2-FCW

HW2
T-DS1066-SC600-N-019

HW3
T-DS1066-SC600-N-019

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: 16.11.2022 Time: 14:17:24		Sheet 5 of 14	
File: Gastroscopy-Controller Button.SchDoc			

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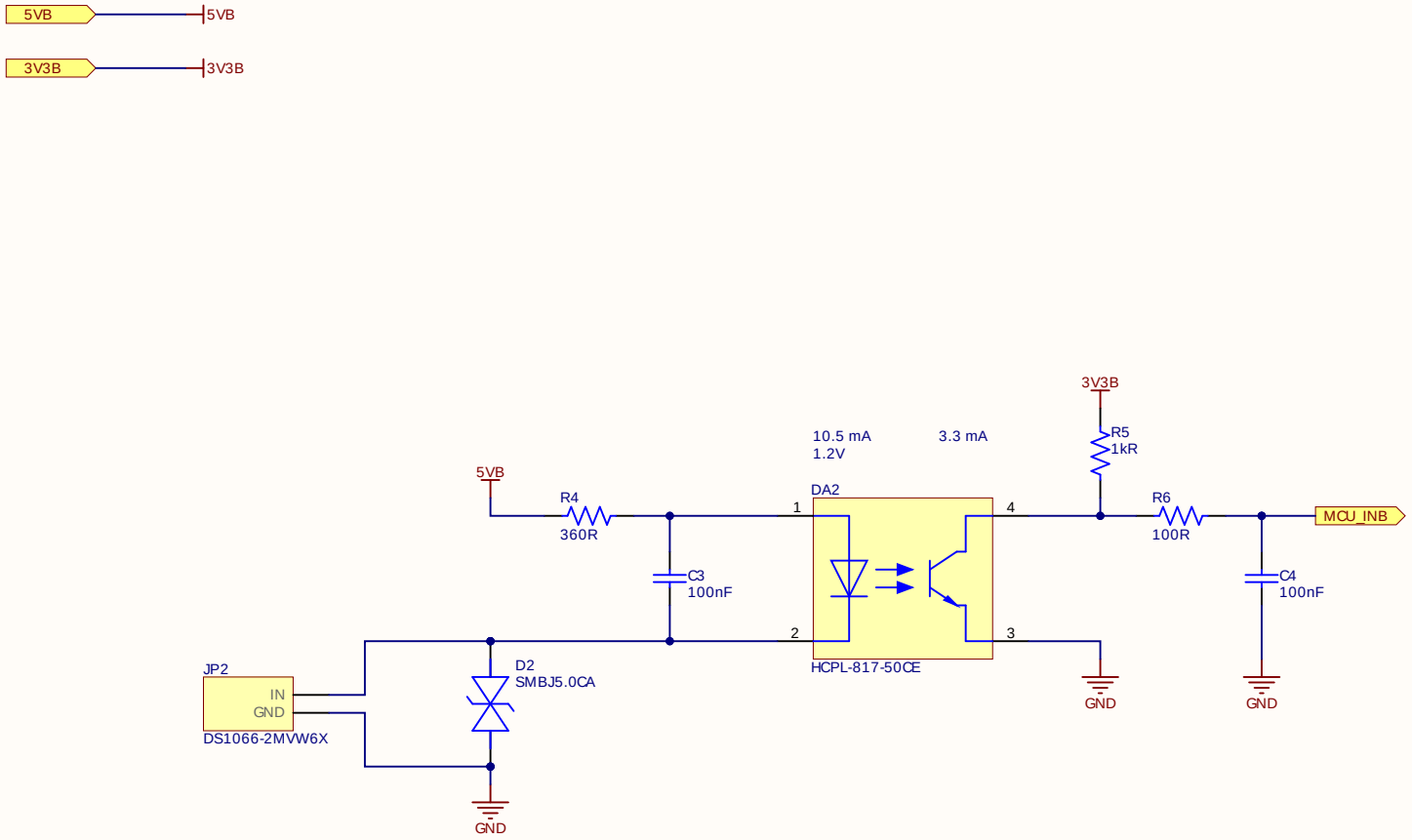

ADDITIONAL PARTS

HW4
DS1066-2-FCW

HW5
T-DS1066-SC600-N-019

HW6
T-DS1066-SC600-N-019

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: 16.11.2022 Time: 14:17:24		Sheet 6 of 14	
File: Gastroscopy-Controller Button.SchDoc			

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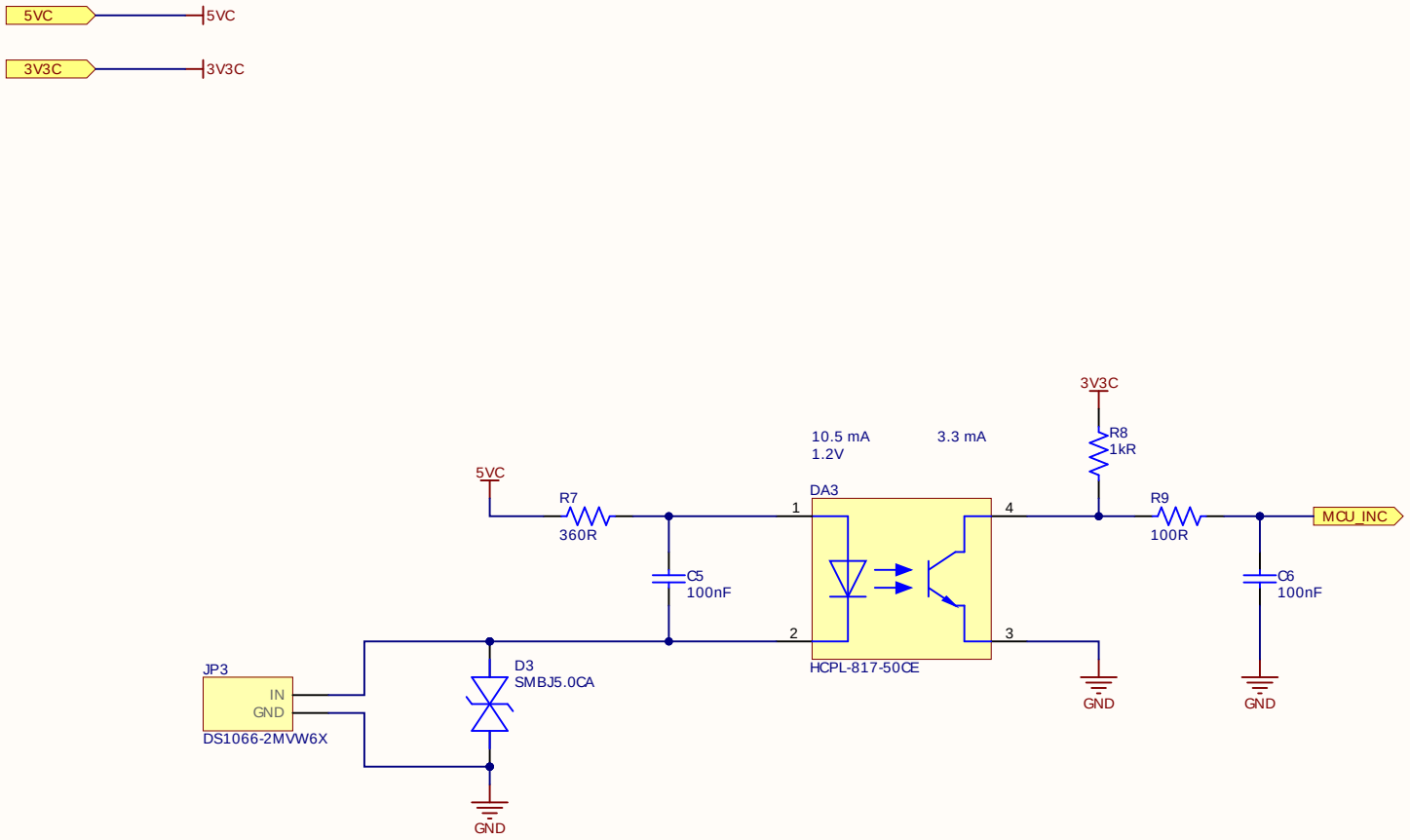

ADDITIONAL PARTS

HW7
DS1066-2-FCW

HW8
T-DS1066-SC600-N-019

HW9
T-DS1066-SC600-N-019

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: 16.11.2022 Time: 14:17:24		Sheet 7 of 14	
File: Gastroscopy-Controller Button.SchDoc			

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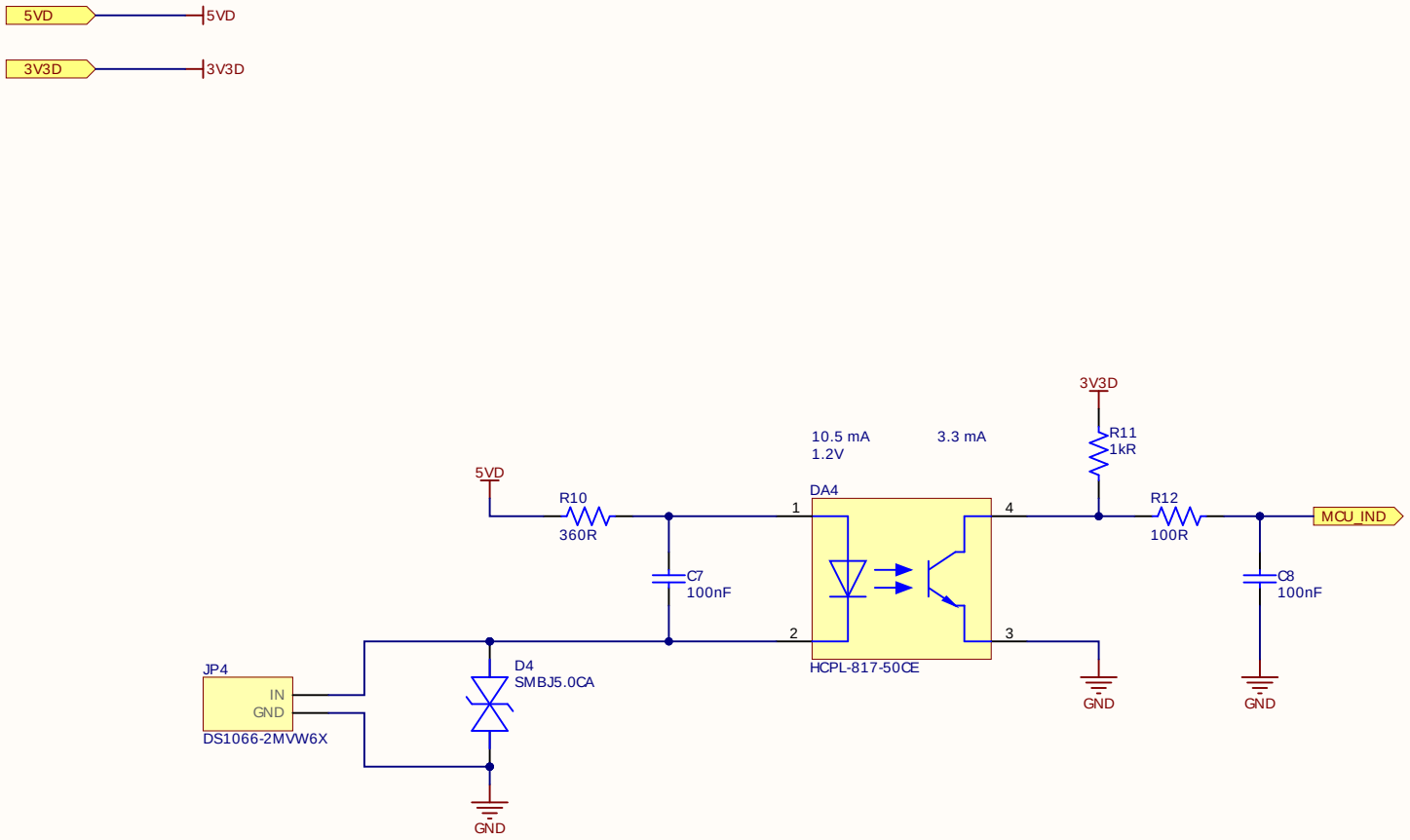

ADDITIONAL PARTS

HW10
DS1066-2-FCW

HW11
T-DS1066-SC600-N-019

HW12
T-DS1066-SC600-N-019

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: 16.11.2022 Time: 14:17:24		Sheet 8 of 14	
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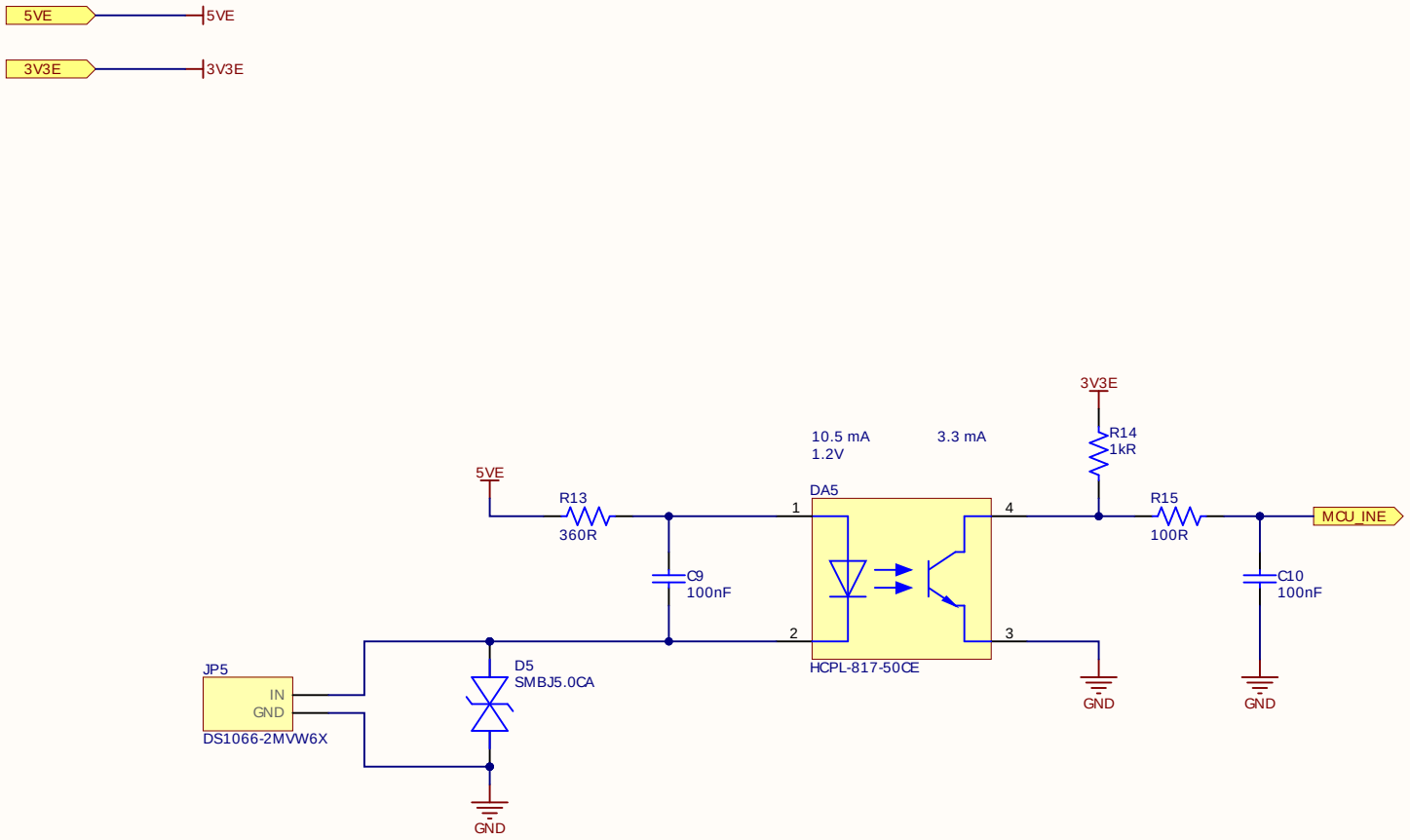

ADDITIONAL PARTS

HW13 DS1066-2-FCW

HW14 T-DS1066-SC600-N-019

HW15 T-DS1066-SC600-N-019

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: 16.11.2022 Time: 14:17:25		Sheet 9 of 14	
File: Gastroscopy-Controller Button.SchDoc			

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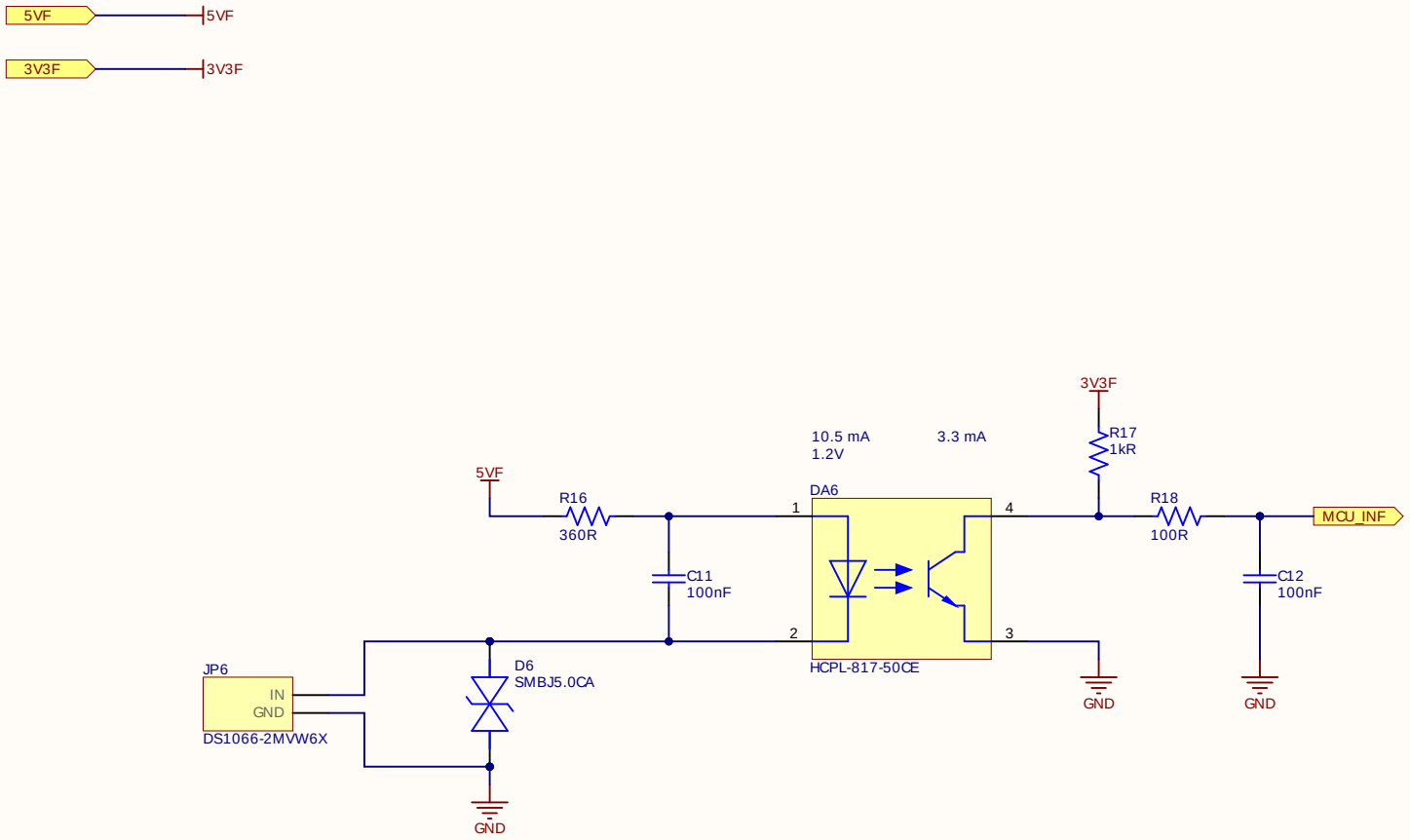

ADDITIONAL PARTS

HW16
DS1066-2-FCW

HW17
T-DS1066-SC600-N-019

HW18
T-DS1066-SC600-N-019

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: 16.11.2022 Time: 14:17:25		Sheet 10 of 14	
File: Gastroscopy-Controller Button.SchDoc			

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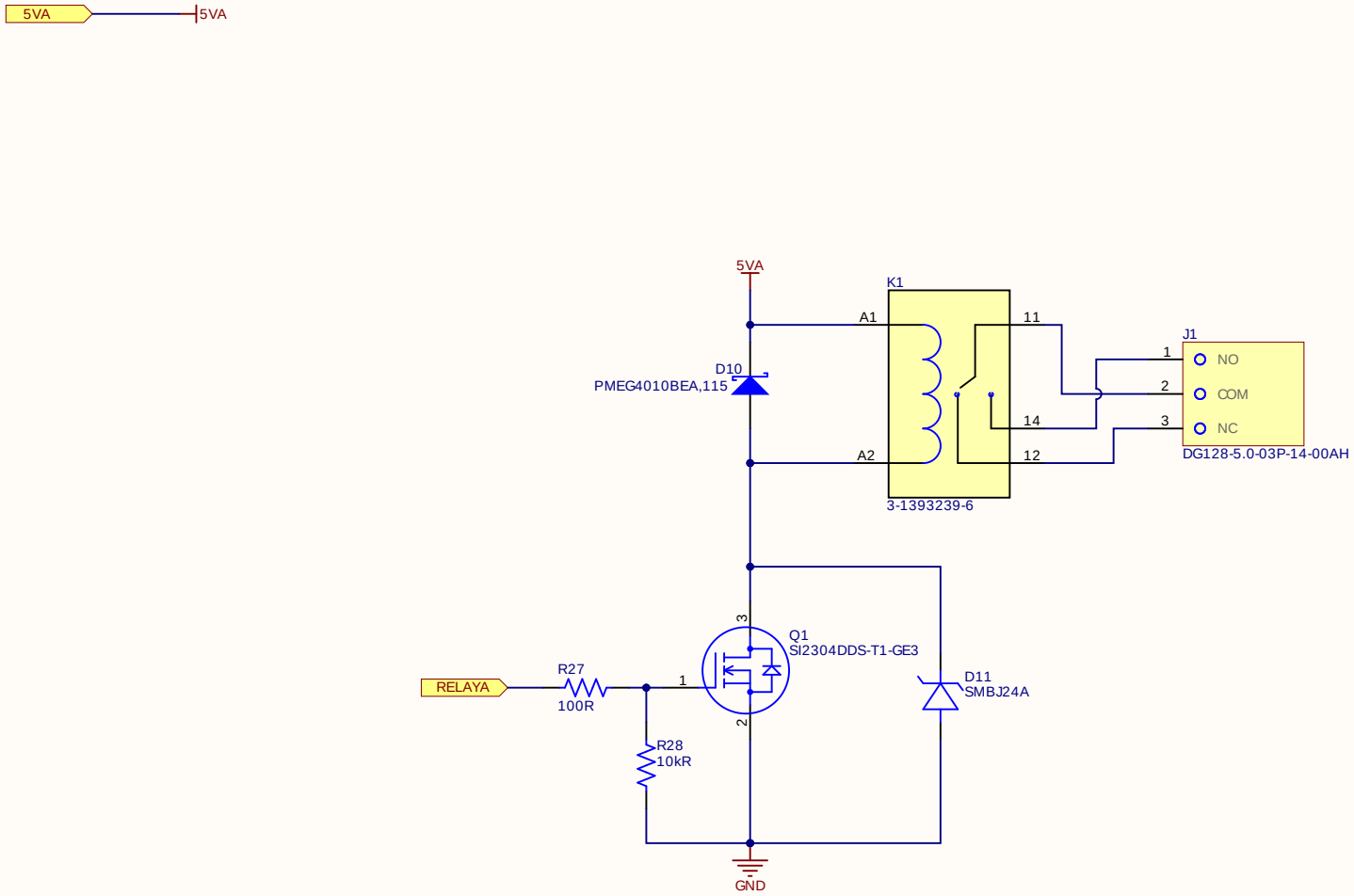

Title: Relays			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99
Project: Gastroscopy Controller			
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii
Date: 16.11.2022 Time: 14:17:25		Sheet 11 of 14	
File: Gastroscopy-Controller Relay.SchDoc			

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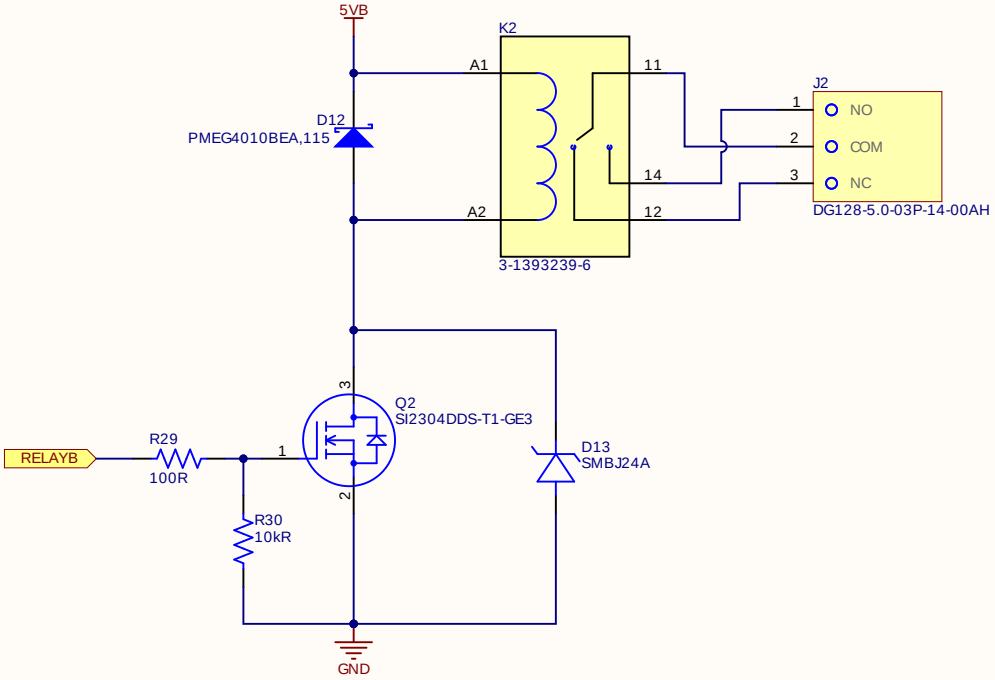

Title: Relays			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99
Project: Gastroscopy Controller			
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii
Date: 16.11.2022 Time: 14:17:25		Sheet 12 of 14	
File: Gastroscopy-Controller Relay.SchDoc			

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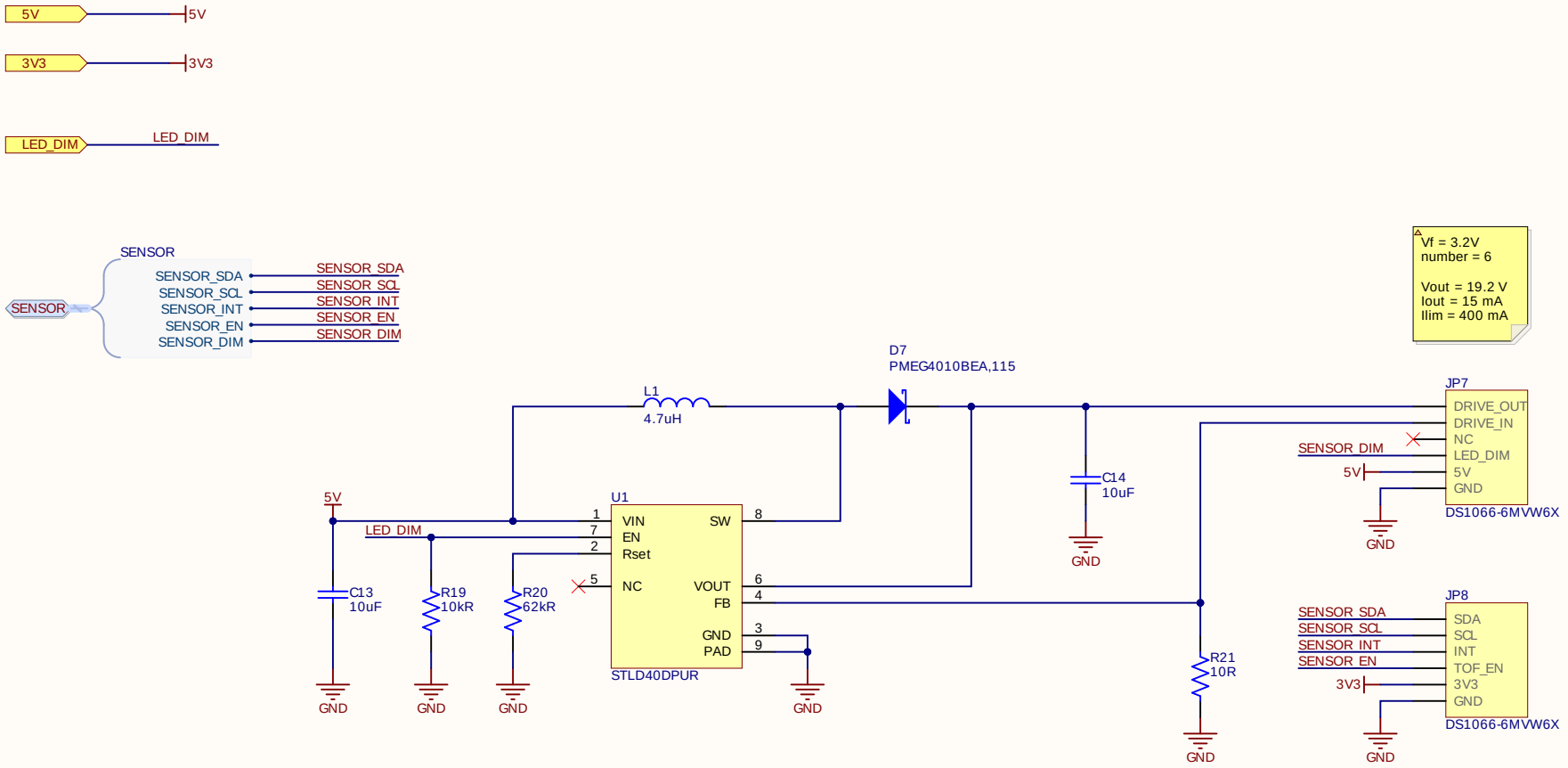

ADDITIONAL PARTS

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: 16.11.2022 Time: 14:17:25		Sheet 13 of 14	
File: Gastroscopy-Controller LED.SchDoc			

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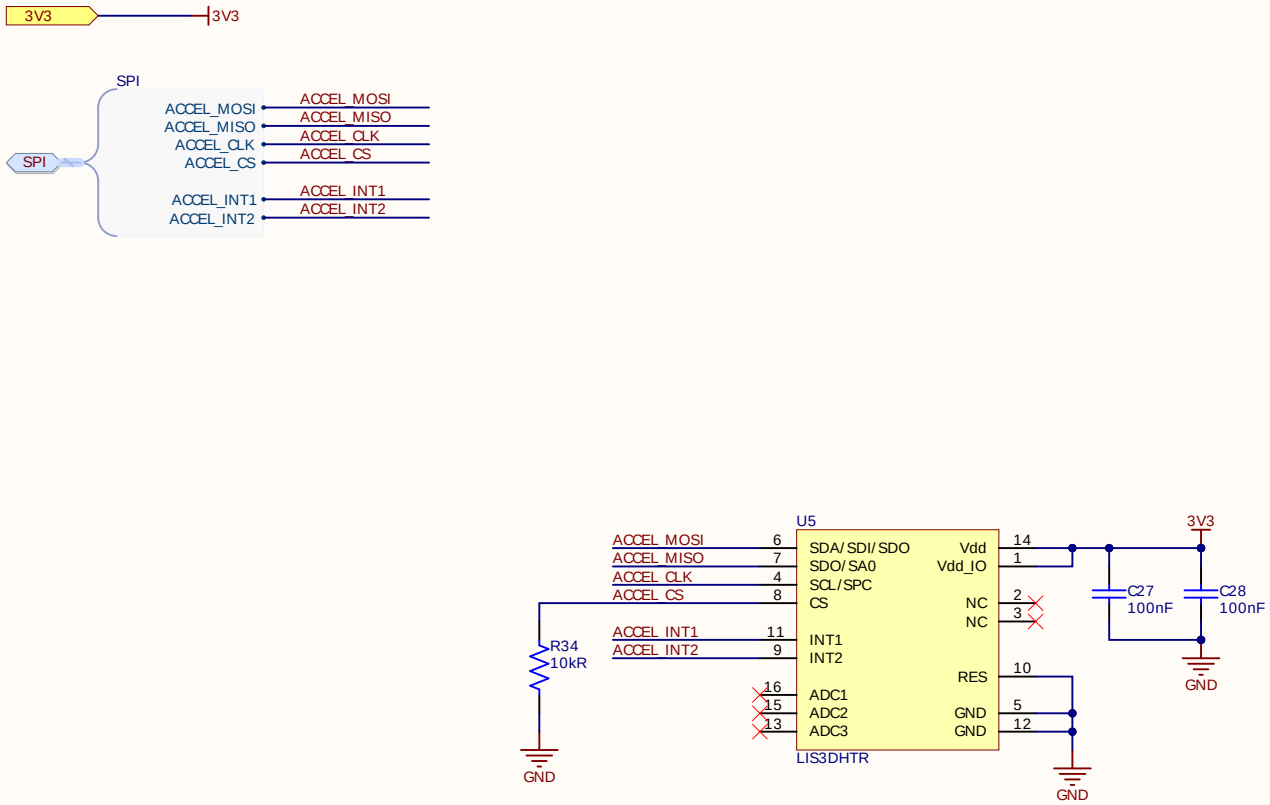

Title: Accelerometer			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99
Project: Gastroscopy Controller			
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii
Date: 16.11.2022 Time: 14:17:25		Sheet 14 of 14	
File: Gastroscopy-Controller Accelerometer.SchDoc			

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