



# Gastroscopy Controller

Gastroscopy Controller

11.11.2022

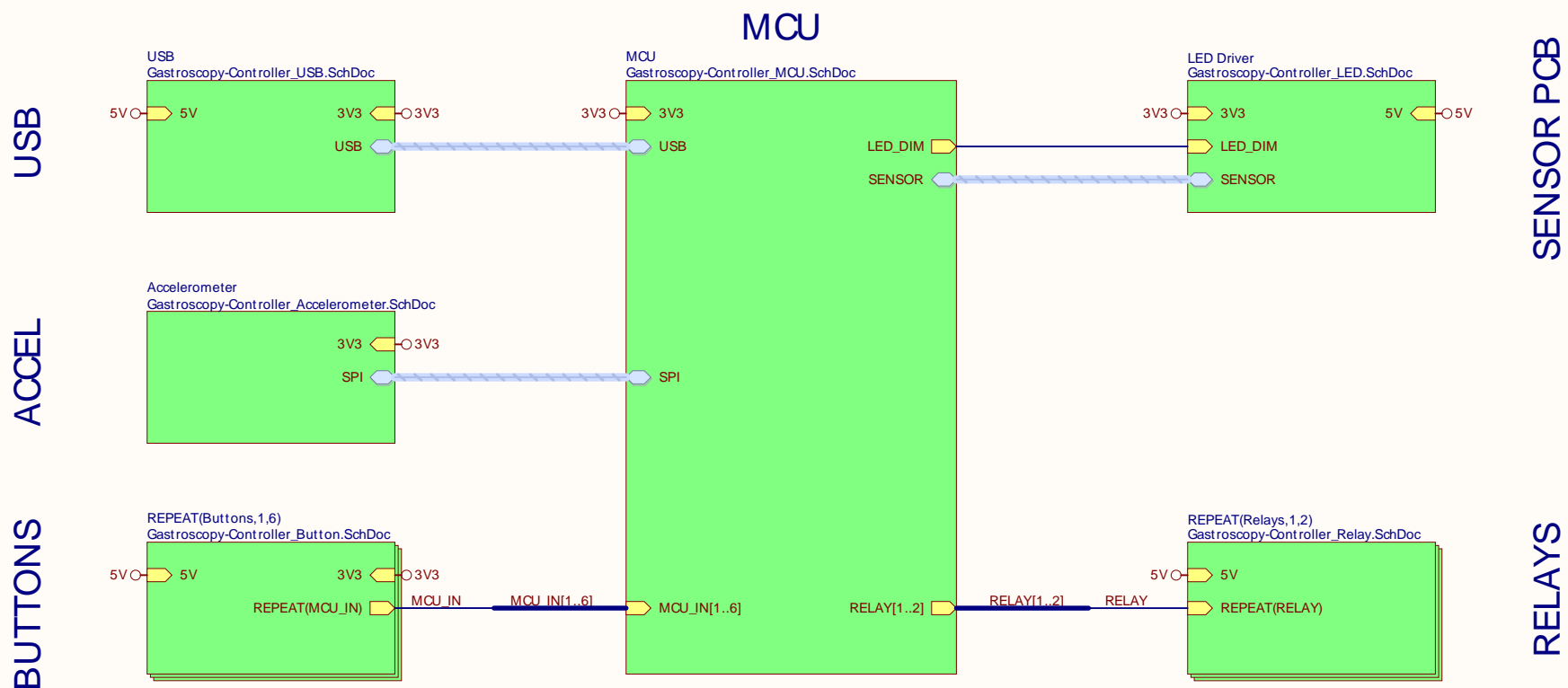
[Overview](#)  
[Gastroscopy-Controller\\_Overview.SchDoc](#)


Company: MRobot, LLC

Project: Gastroscopy Controller

Jira Key: GSTRONTRL

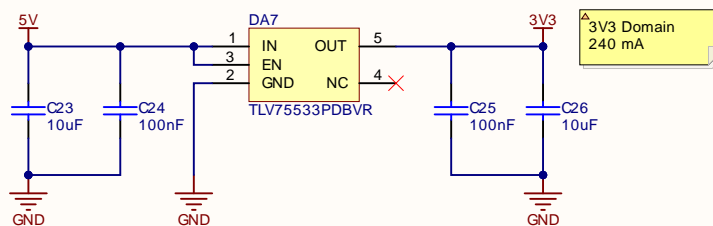
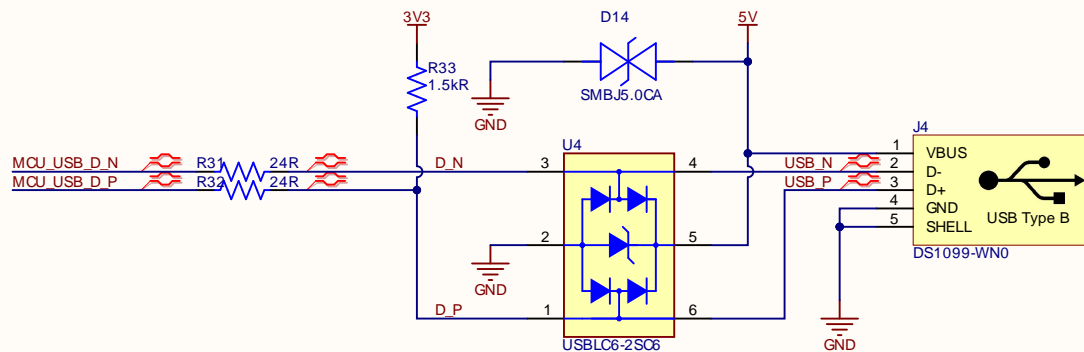
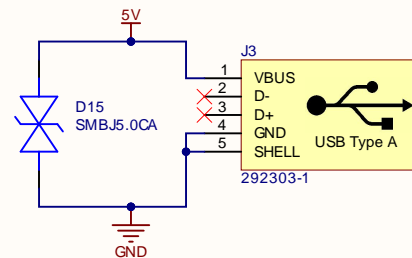
REVISION	DESCRIPTION	DATE	ECO	ENGINEER
0.1.0	Prototype	10/17/2022	0000	Podlesnyi V.S.



Title: Overview			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99	 <a href="http://www.mrobots.ru">www.mrobots.ru</a>
Project: Gastroscopy Controller				
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii	
Date: 11.11.2022	Time: 12:58:46	Sheet 2 of 14		
File: Gastroscopy-Controller_Overview.SchDoc				

5V

3V3



Title: USB

Project: Gastroscopy Controller

Size A Number: 0000-0000

Date: 11.11.2022 Time: 12:58:47

File: Gastroscopy-Controller\_USB.SchDoc

Revision 0.1.0

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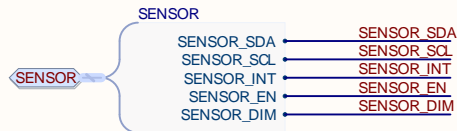
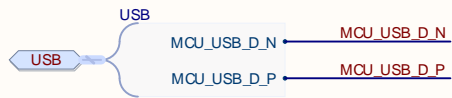
MRobot, LCC  
nab. reki Karpovki, d. 5/3E  
Saint-Petersburg, 197022  
Ph: +7 (911) 701-51-99

Engineer:  
Podlesnyi Vasilii

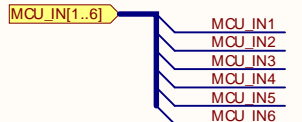


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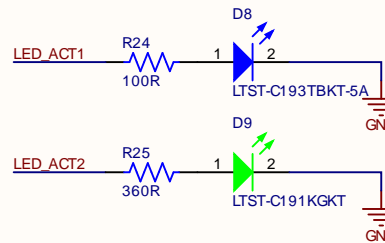
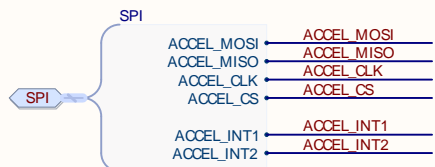
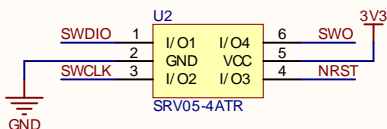
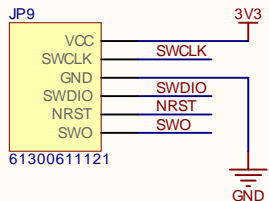
3V3



LED\_DIM

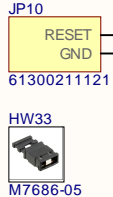


## SWD



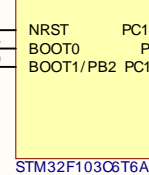
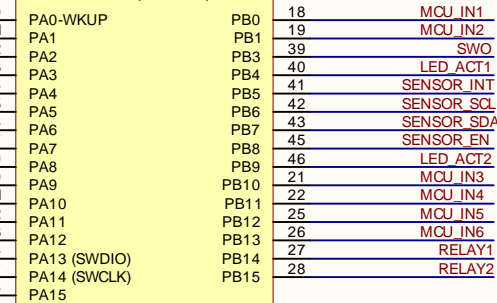
## RESET

"ON" - RESET  
"OFF" - NOP



U3A

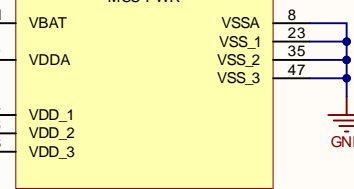
MCU IOs (A, B, C, D)



STM32F103C6T6A

U3B

MCU PWR



STM32F103C6T6A

$$CL=18pF$$
$$CL=(C1 \cdot C2 / (C1 + C2)) = 18$$
$$C1=Cx+Cp=36pF$$
$$C2=Cx+Cp=36pF$$
$$Cx = 7 \quad Cp = 29$$

Title: MCU

Project: Gastroscopy Controller

Size A Number: 0000-0000

Date: 11.11.2022 Time: 12:58:47

File: Gastroscopy-Controller MCU.SchDoc

Revision 0.1.0

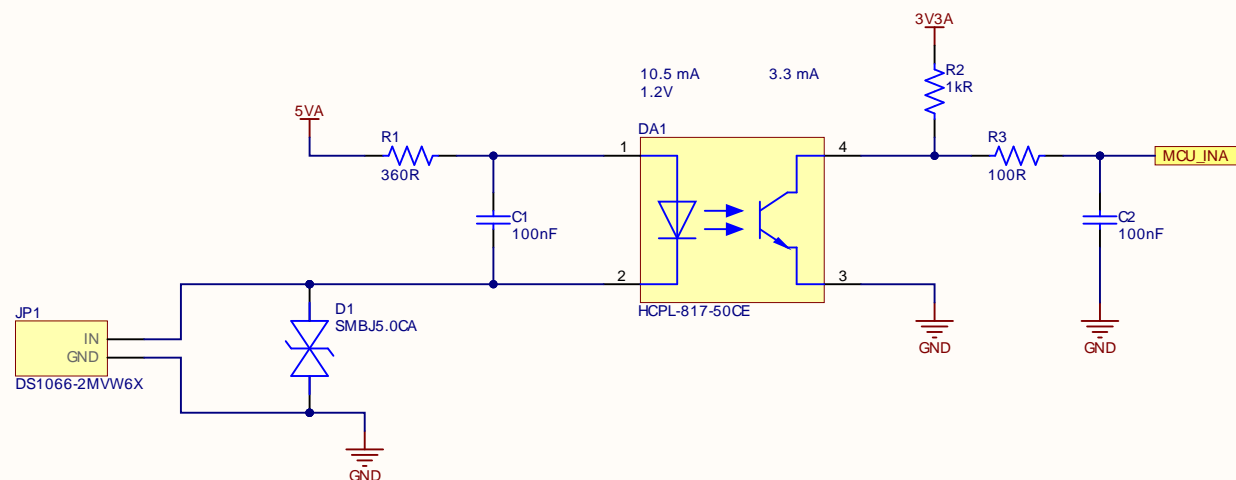
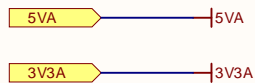
Sheet 4 of 14

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




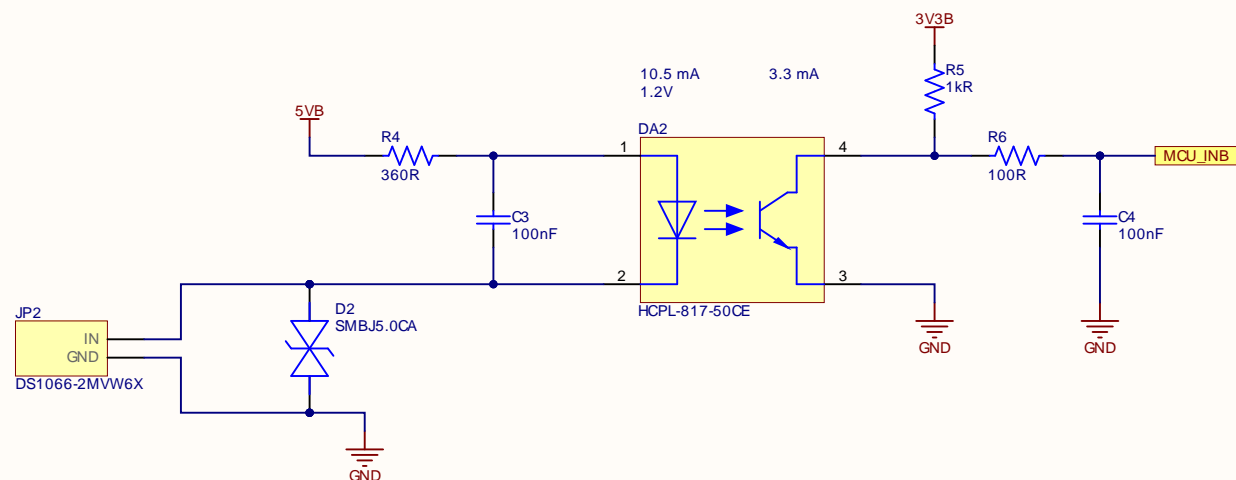
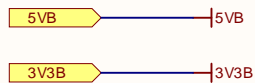
HW2  
T-DS1066-SC600-N-019



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: 11.11.2022	Time: 12:58:47	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

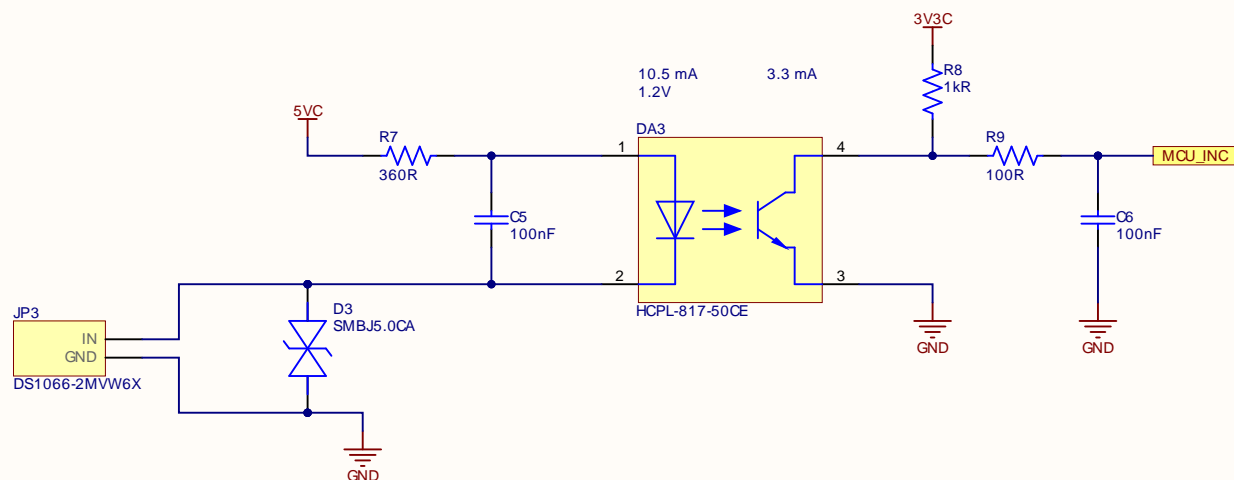


HW6  
T-DS1066-SC600-N-019

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: 11.11.2022	Time: 12:58:47	Sheet 6 of 14	
File: Gastroscopy-Controller_Button.SchDoc			 <a href="http://www.mrobots.ru">www.mrobots.ru</a>

5VC

3V3C



## ADDITIONAL PARTS




HW7  
DS1066-2-FCW



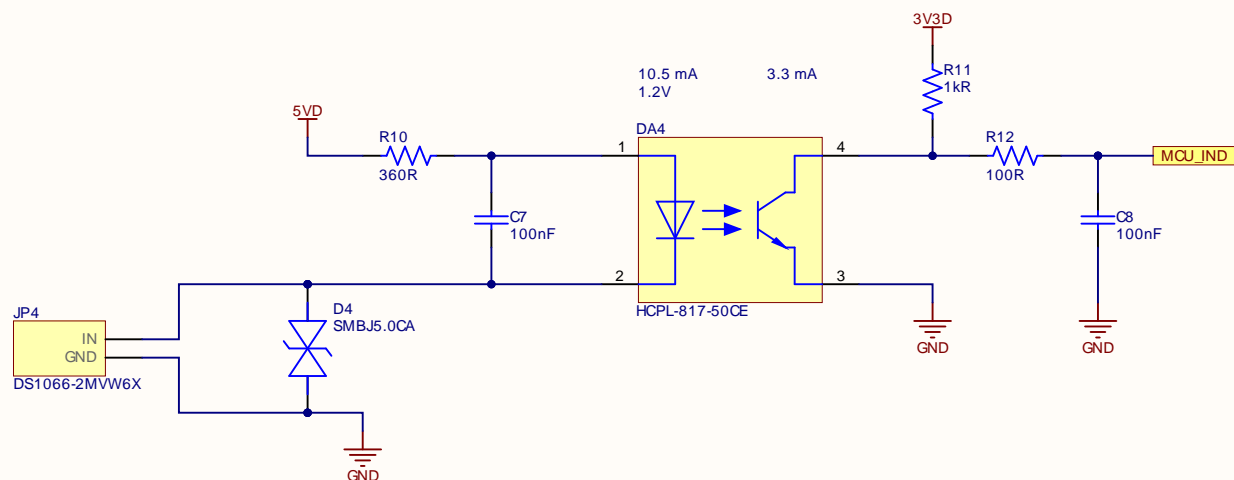
HW8  
T-DS1066-SC600-N-019



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	 <a href="http://www.mrobots.ru">www.mrobots.ru</a>
Project: Gastroscopy Controller				
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasili	
Date: 11.11.2022	Time: 12:58:47	Sheet 7 of 14		
File: Gastroscopy-Controller_Button.SchDoc				

5VD  
3V3D



## ADDITIONAL PARTS



DS1066-2-FCW



T-DS1066-SC600-N-019



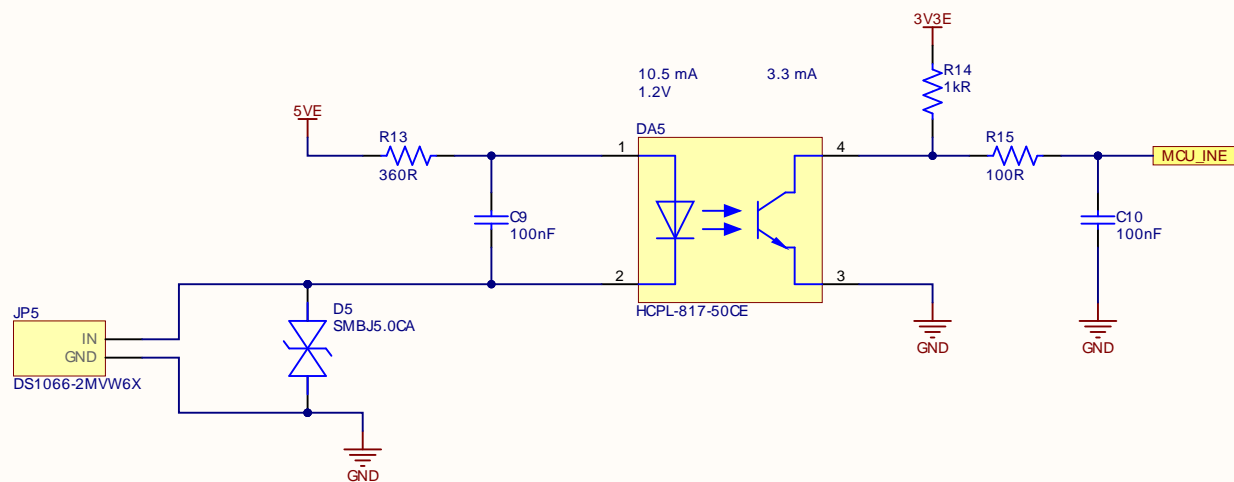
T-DS1066-SC600-N-019

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  <a href="http://www.mrobots.ru">www.mrobots.ru</a>
Date: 11.11.2022	Time: 12:58:47	Sheet 8 of 14	
File: Gastroscopy-Controller_Button.SchDoc			



5VE

3V3E



## ADDITIONAL PARTS




DS1066-2-FCW

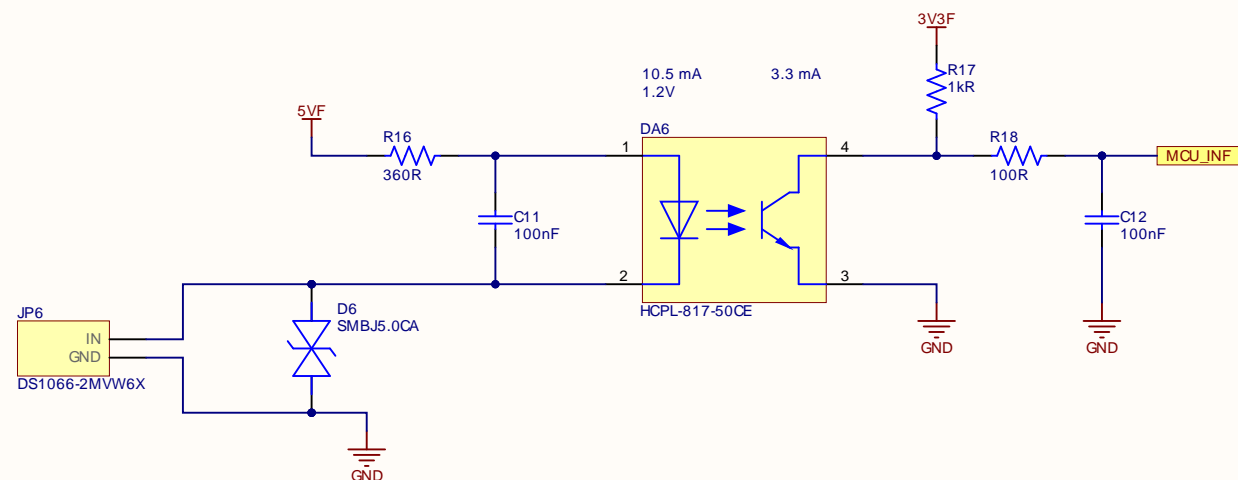
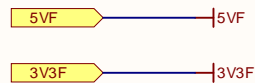


T-DS1066-SC600-N-019



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: 11.11.2022	Time: 12:58:47	Sheet 9 of 14	
File: Gastroscopy-Controller_Button.SchDoc			 <a href="http://www.mrobots.ru">www.mrobots.ru</a>



## ADDITIONAL PARTS



HW16  
DS1066-2-FCW




HW17  
T-DS1066-SC600-N-019

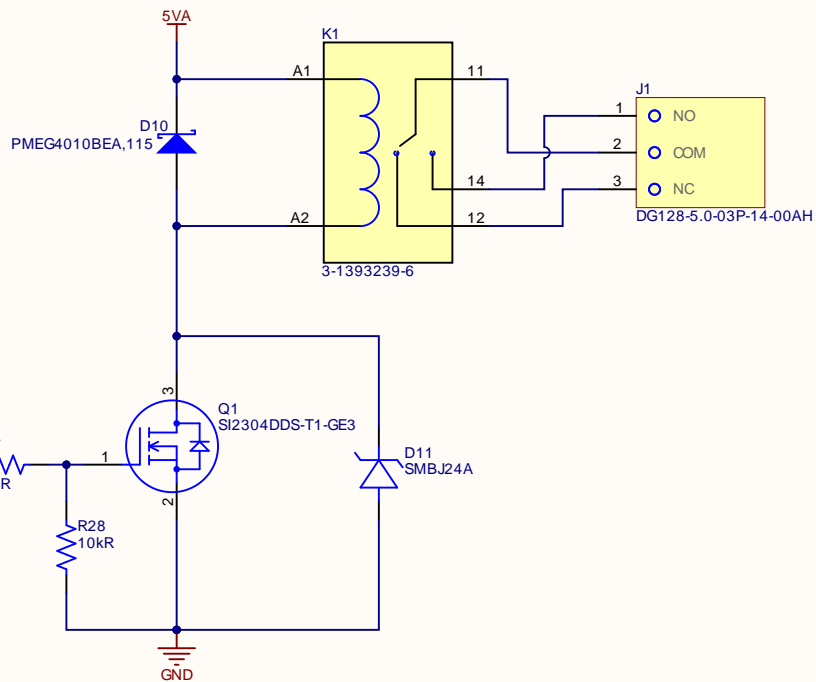



HW18  
T-DS1066-SC600-N-019

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: 11.11.2022	Time: 12:58:47	Sheet 10 of 14	
File: Gastroscopy-Controller_Button.SchDoc			

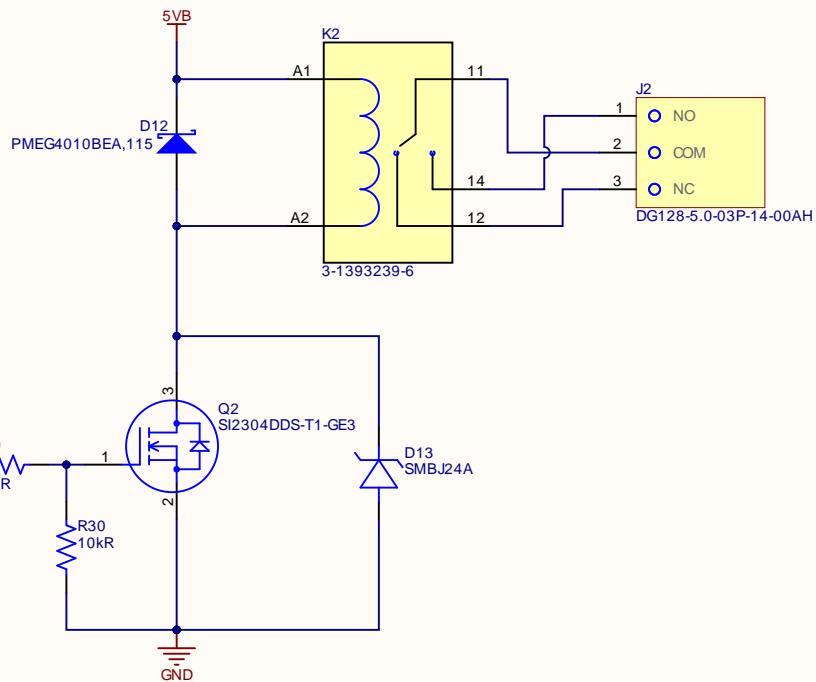
  
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5VA

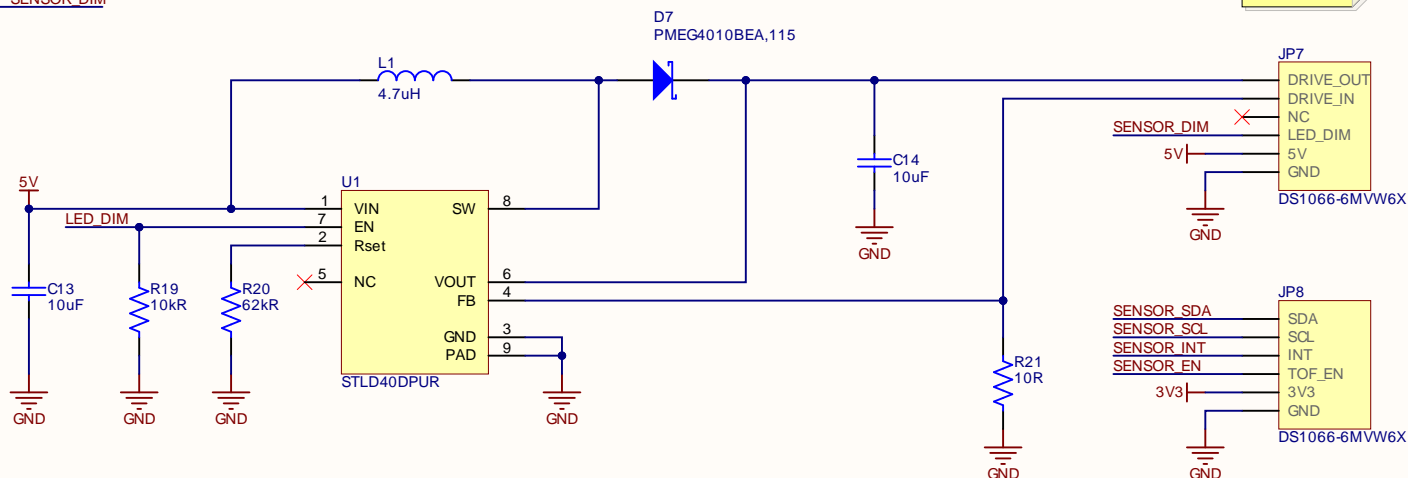
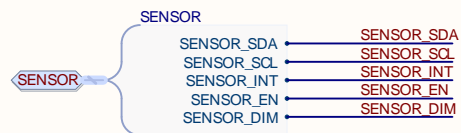
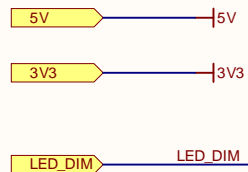


Title: Relays			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99	 <a href="http://www.mrobots.ru">www.mrobots.ru</a>
Project: Gastroscopy Controller				
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii	
Date: 11.11.2022	Time: 12:58:47	Sheet 11 of 14		
File: Gastroscopy-Controller_Relay.SchDoc				

5VB



Title: Relays			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99	 <a href="http://www.mrobots.ru">www.mrobots.ru</a>
Project: Gastroscopy Controller				
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii	
Date: 11.11.2022	Time: 12:58:48	Sheet 12 of 14		
File: Gastroscopy-Controller_Relay.SchDoc				



## ADDITIONAL PARTS



HW19  
T-DS1066-SC600-N-019



HW22  
T-DS1066-SC600-N-019



HW25  
T-DS1066-SC600-N-019



HW28  
T-DS1066-SC600-N-019



HW20  
T-DS1066-SC600-N-019



HW23  
T-DS1066-SC600-N-019



HW26  
T-DS1066-SC600-N-019



HW29  
T-DS1066-SC600-N-019



HW31  
T-DS1066-SC600-N-019



HW21  
DS1066-6-FCW



HW24  
DS1066-6-FCW



HW27  
T-DS1066-SC600-N-019



HW30  
T-DS1066-SC600-N-019



HW32  
T-DS1066-SC600-N-019

Title: LED Driver

Project: Gastroscopy Controller

Size A

Number: 0000-0000

Revision 0.1.0

Date: 11.11.2022 Time: 12:58:48

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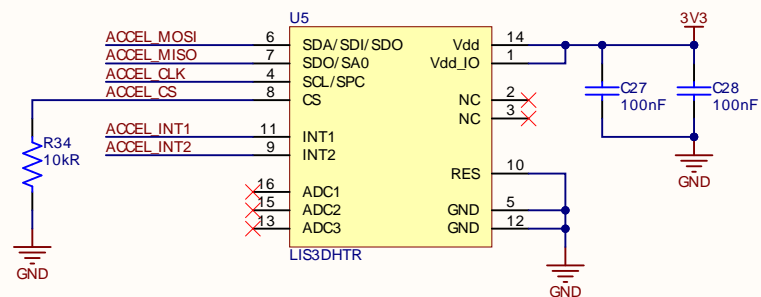
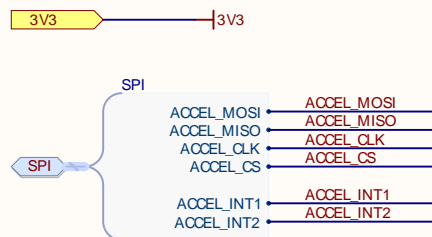
File: Gastroscopy-Controller\_LED.SchDoc


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: Accelerometer			MRobot, LCC nab. reki Karpovki, d. 5/3E Saint-Petersburg, 197022 Ph: +7 (911) 701-51-99	 <a href="http://www.mrobots.ru">www.mrobots.ru</a>
Project: Gastroscopy Controller				
Size A	Number: 0000-0000	Revision 0.1.0	Engineer: Podlesnyi Vasilii	
Date: 11.11.2022	Time: 12:58:48	Sheet 14 of 14		
File: Gastroscopy-Controller Accelerometer.SchDoc				