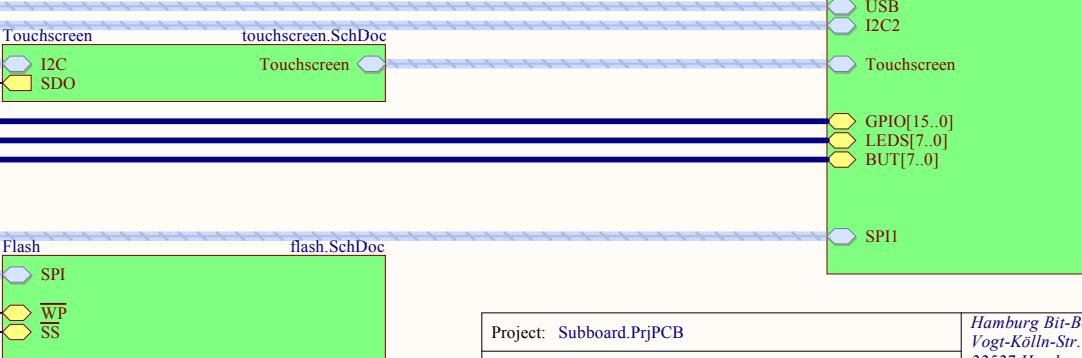
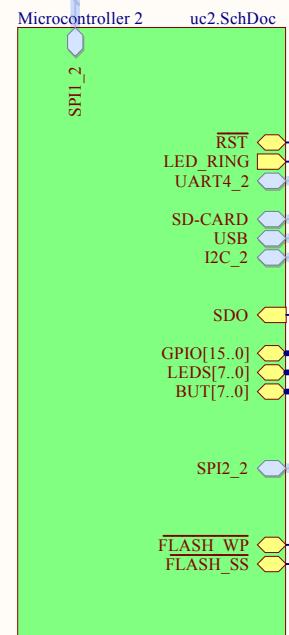
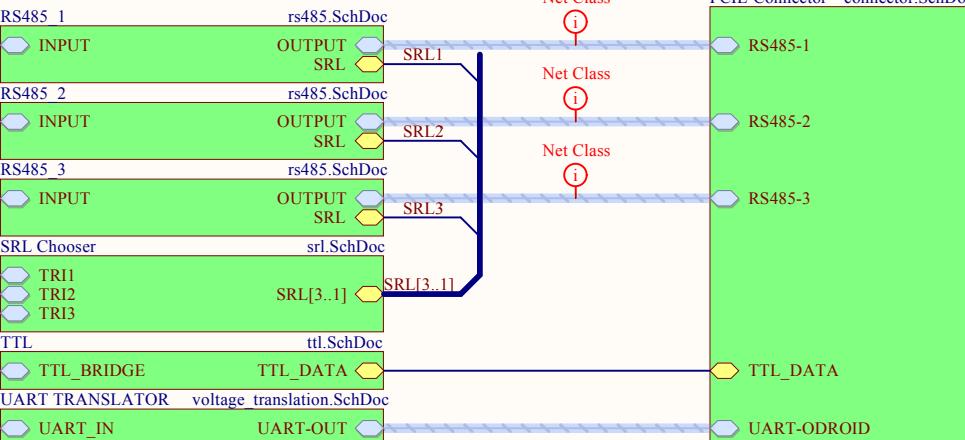
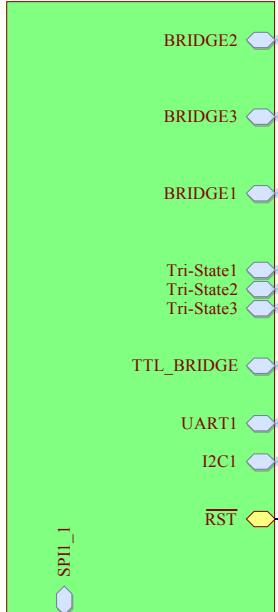
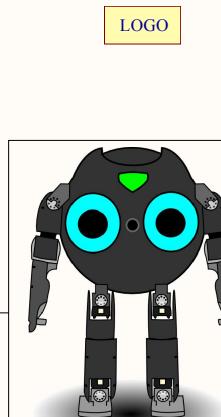


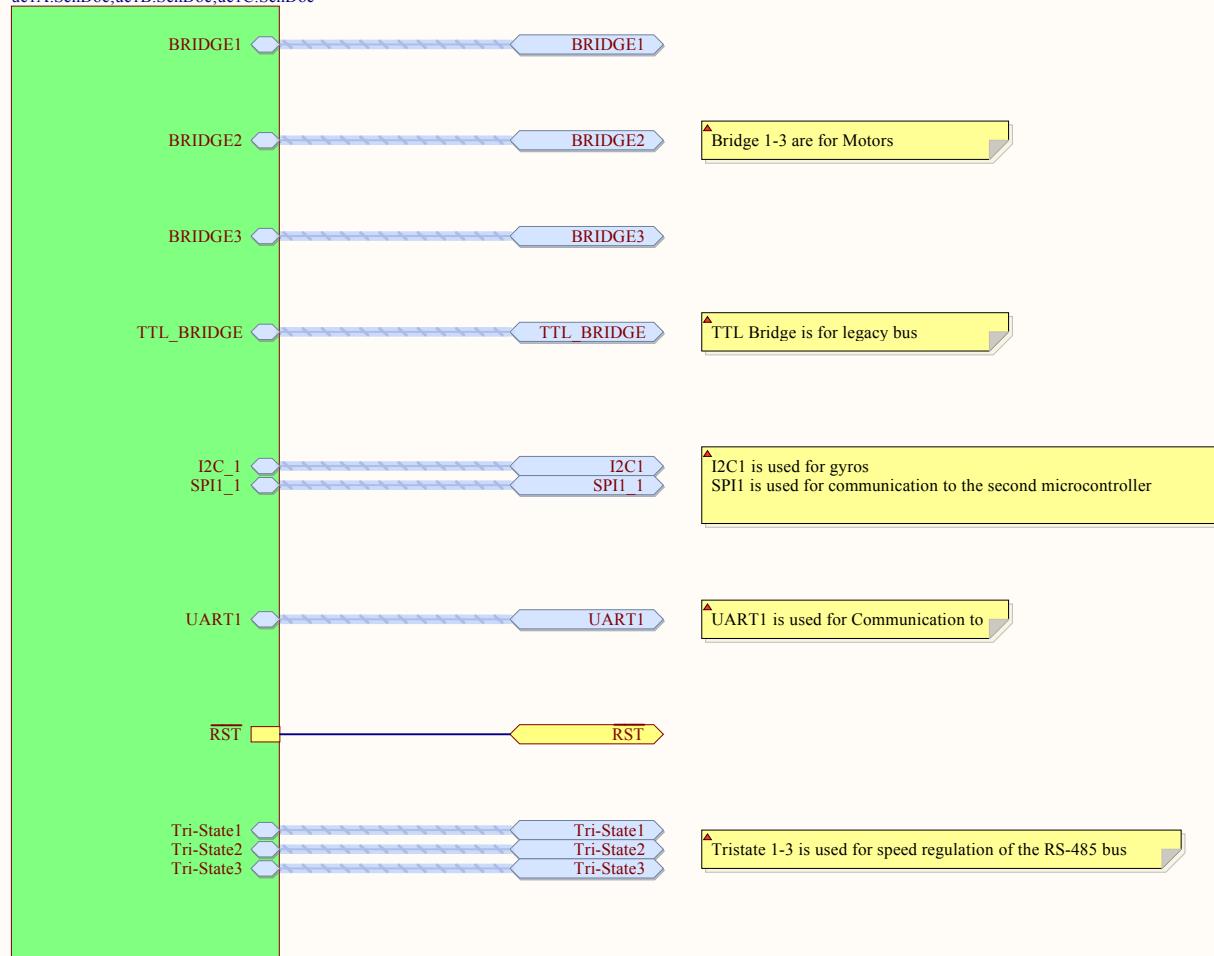
Microcontroller 1
uc1.SchDoc

Project: Subboard.PrjPCB	Hamburg Bit-Bots Vogt-Kölln-Str. 30 22527 Hamburg Germany
Title: Subboard Overview	
Author: Marcel Hellwig	Rev: A
Date: 18.05.2015	Time: 11:04:28
Sheet 1	of 16



A

1st Microcontroller
uc1A.SchDoc;uc1B.SchDoc;uc1C.SchDoc



B

C

D

A

B

C

D

Project: Subboard.PrjPCB

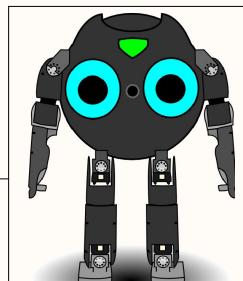
Title: Microcontroller 1

Author: Marcel Hellwig

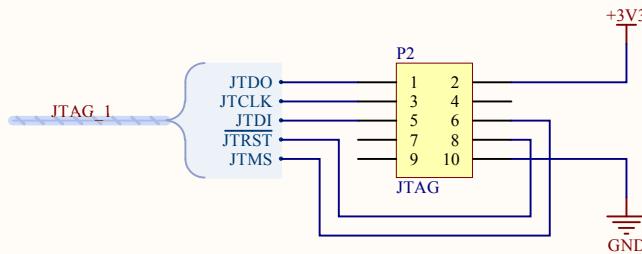
Date: 18.05.2015

Time: 11:04:28

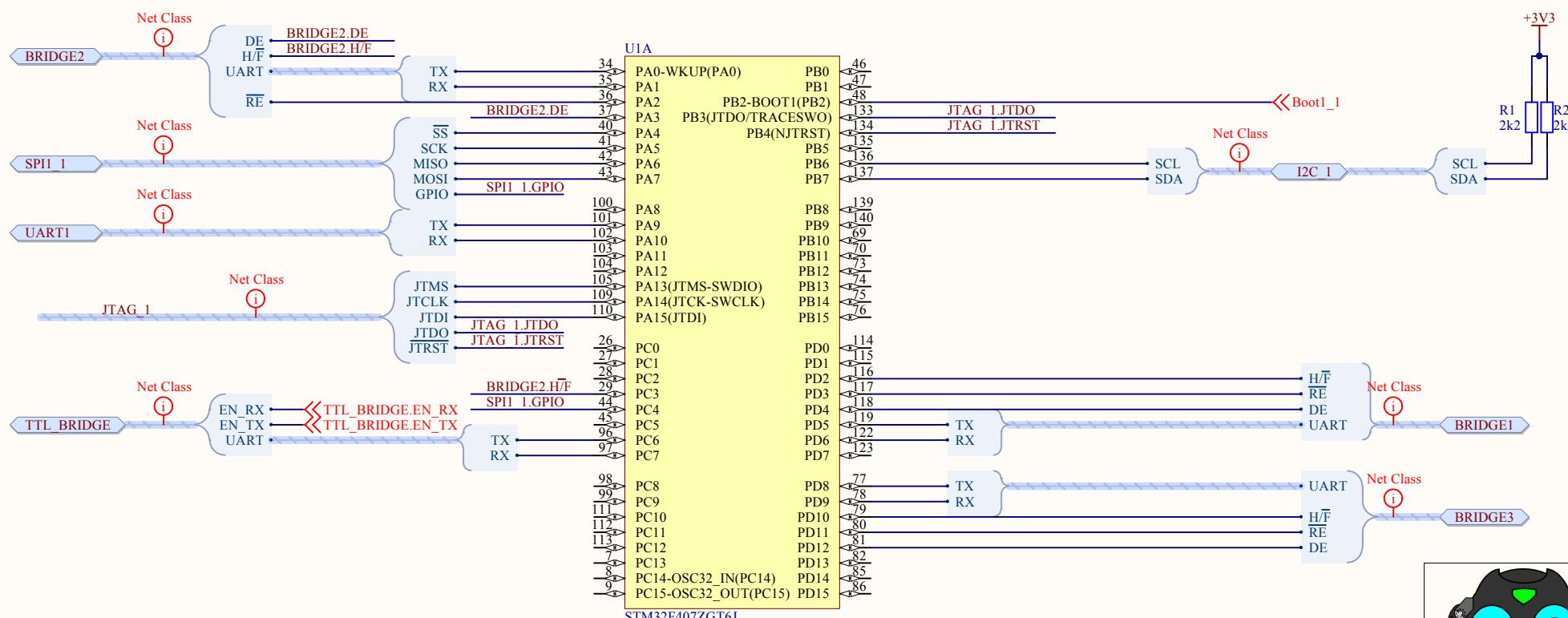
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A



B



D

Project: Subboard.PrjPCB

Title: Microcontroller 1 (Part A)

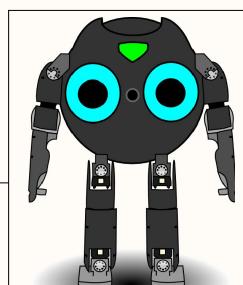
Author: Marcel Hellwig

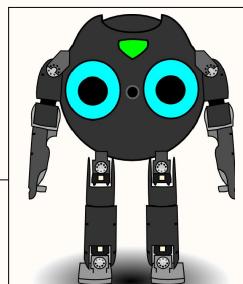
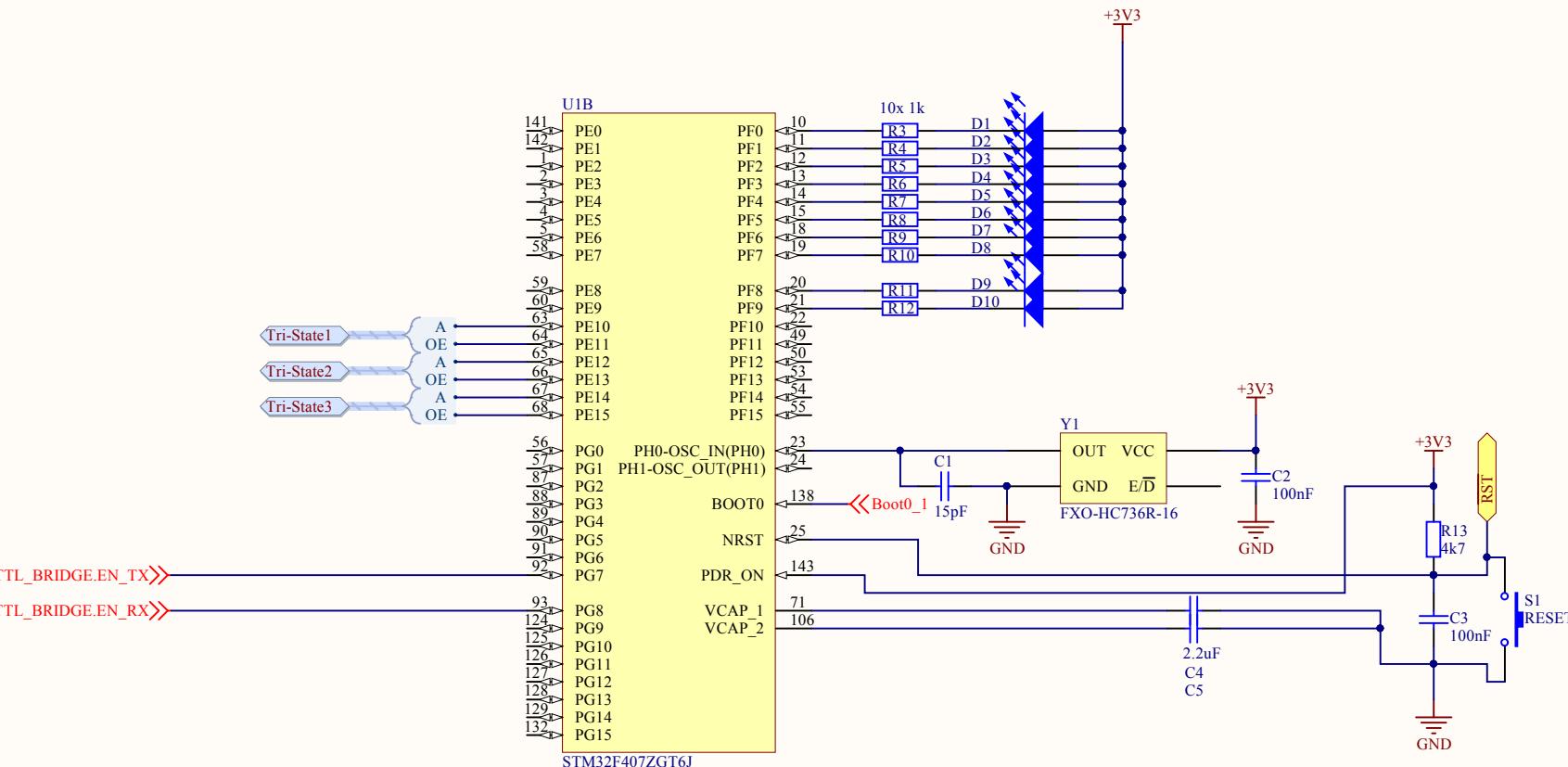
Rev: A

Date: 18.05.2015 Time: 11:04:28

Sheet 3 of 16

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A

A

B

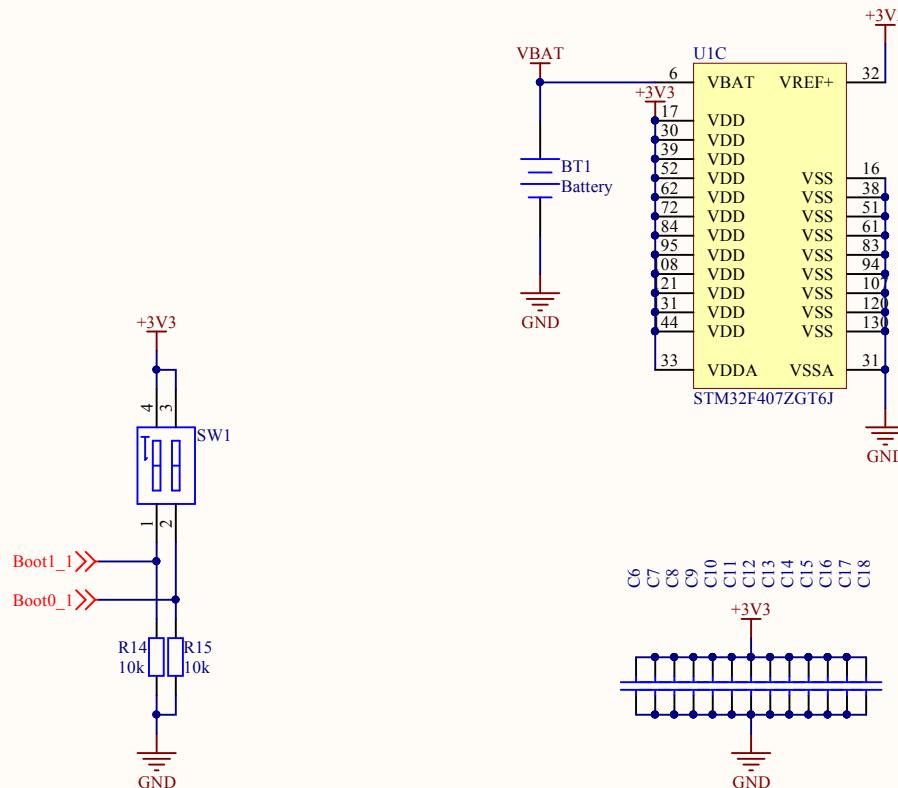
B

C

C

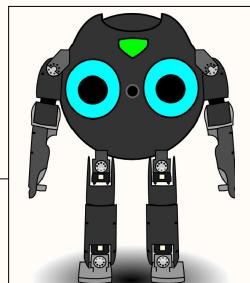
D

D



Project: Subboard.PrjPCB	Hamburg Bit-Bots Vogt-Kölln-Str. 30 22527 Hamburg Germany
Title: Microcontroller 1 (Part C)	
Author: Marcel Hellwig	Rev: A
Date: 18.05.2015	Time: 11:04:29

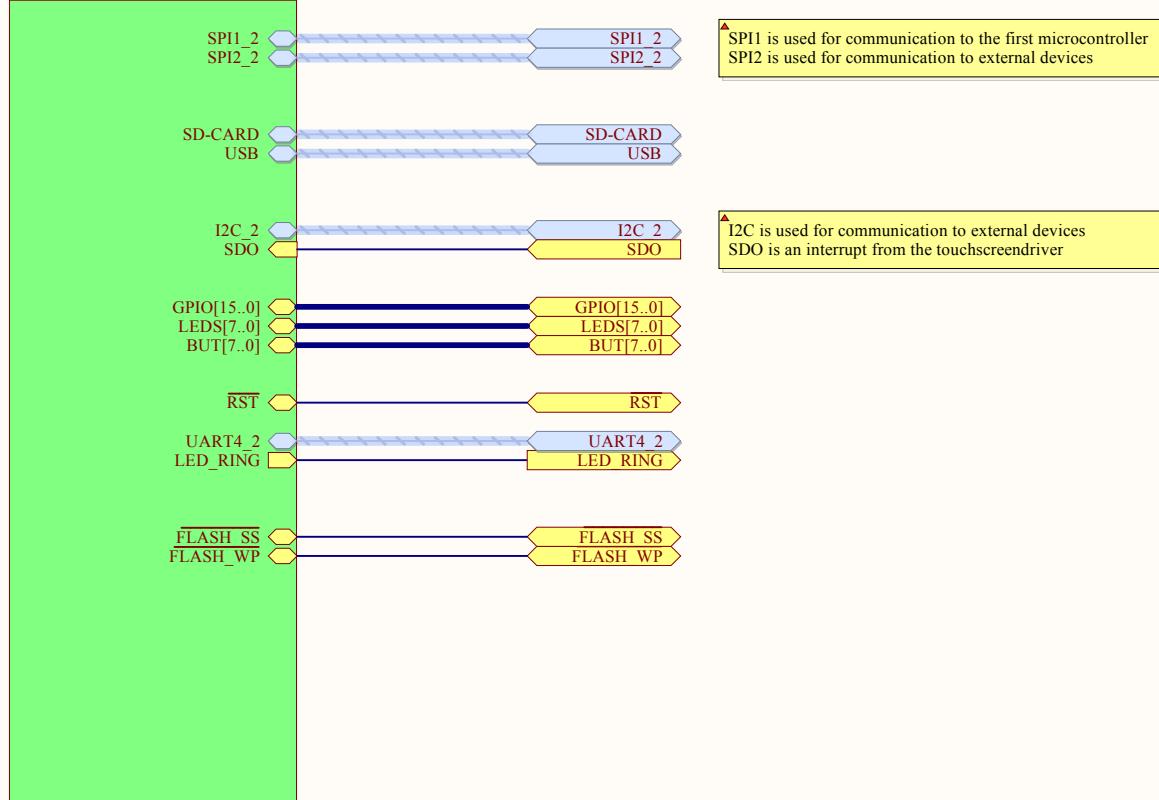
Sheet 5 of 16



A

A

2nd Microcontroller
uc2A.SchDoc;uc2B.SchDoc;uc2C.SchDoc



B

B

C

C

D

D

Project: Subboard.PrjPCB

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Title: Microcontroller 2

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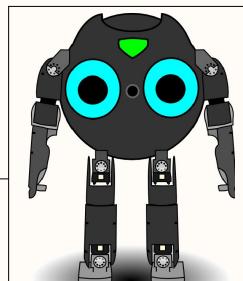
Author: Marcel Hellwig

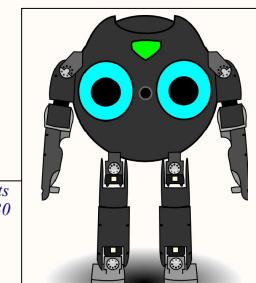
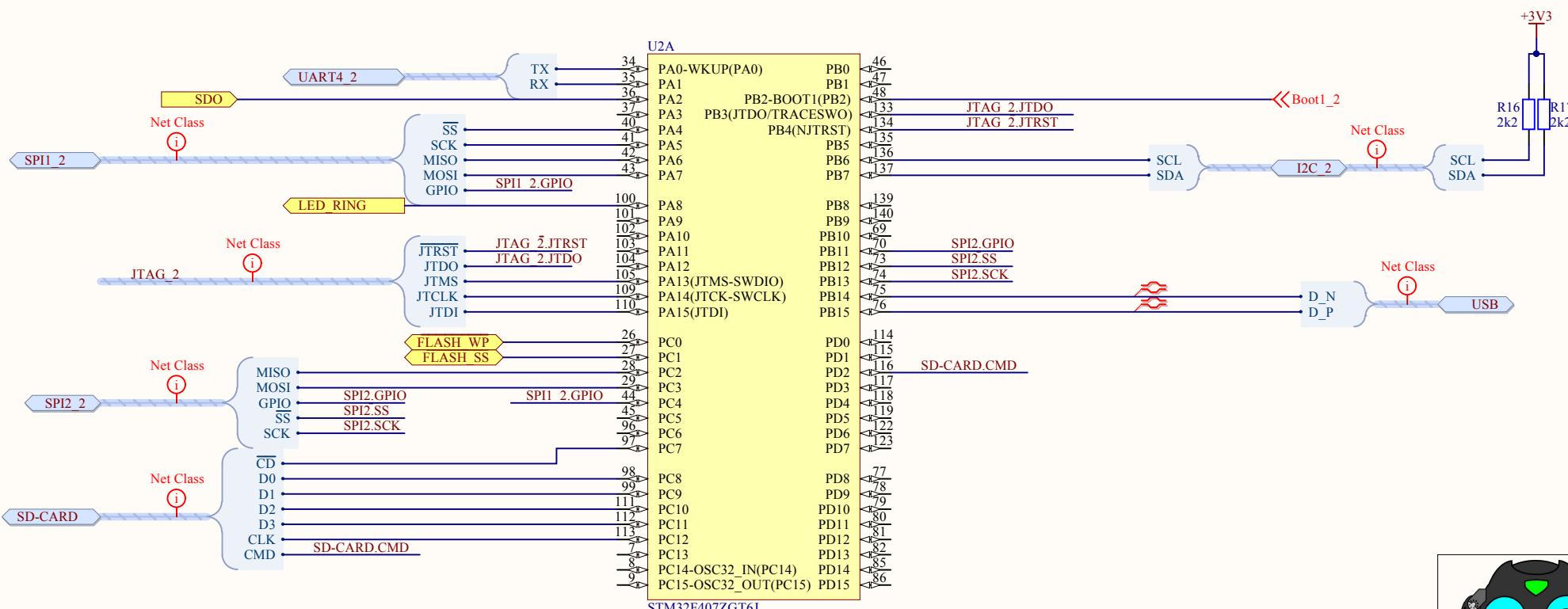
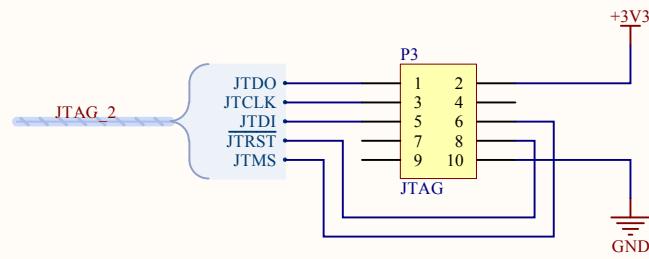
Rev: A

Date: 18.05.2015

Time: 11:04:29

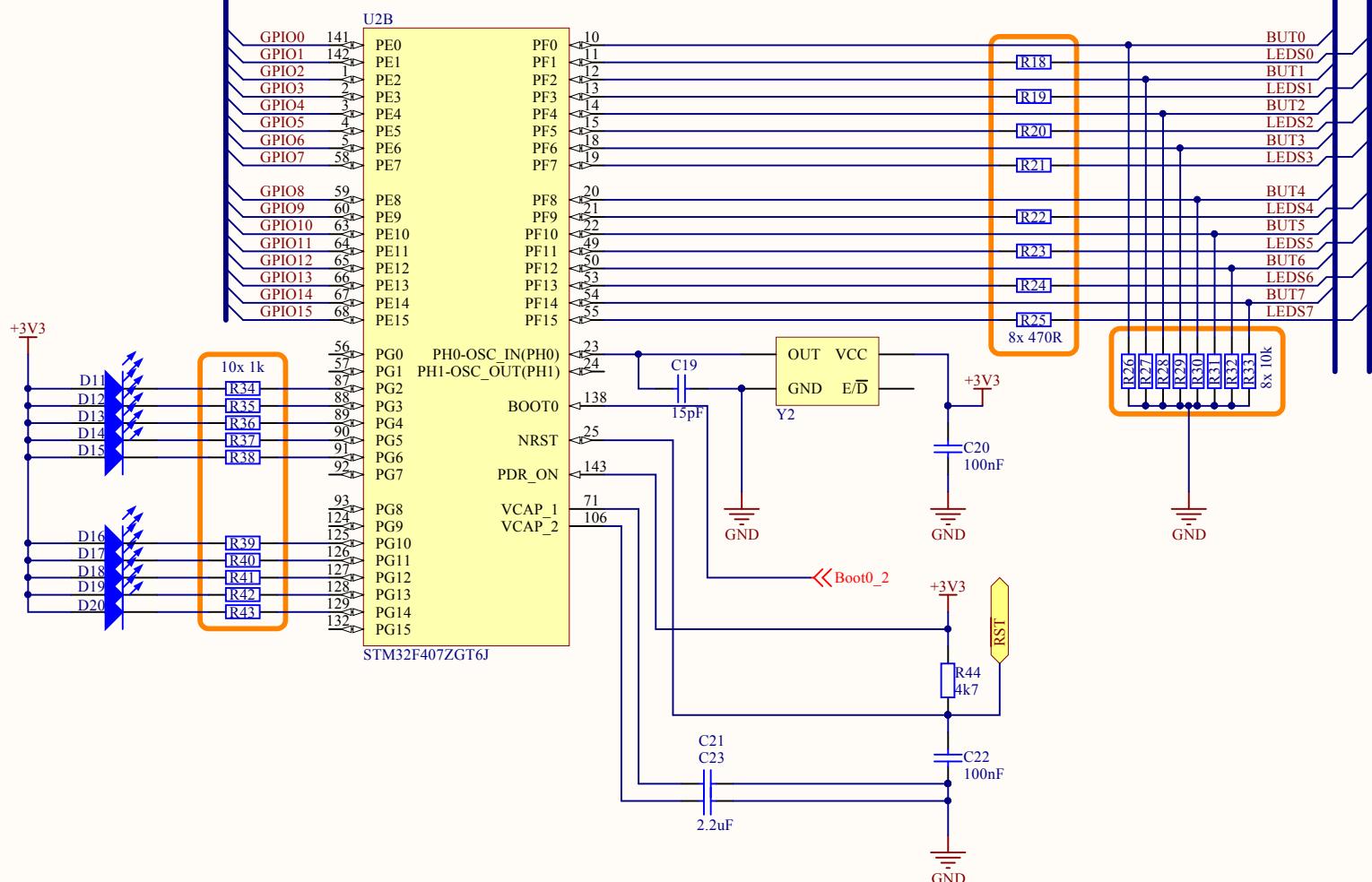
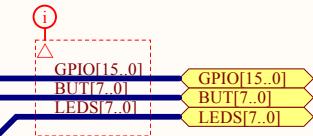
Sheet 6 of 16





Project:	Subboard.PrjPCB			Hamburg Bit-Bots Vogt-Kölln-Str. 3 22527 Hamburg Germany
Title:	Microcontroller 2 (Part A)			
Author:	Marcel Hellwig	Rev:	A	
Date:	18.05.2015	Time:	11:04:29	Sheet 7 of 16

Net Class



Project: Subboard.PrjPCB

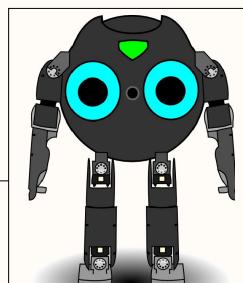
Title: Microcontroller 2 (Part B)

Author: Marcel Hellwig

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Germany

Date: 18.05.2015 Time: 11:04:29 Sheet 8 of 16

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A

A

B

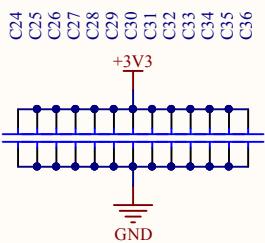
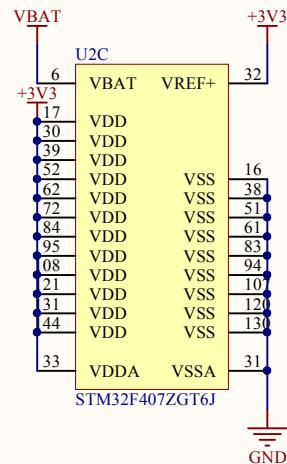
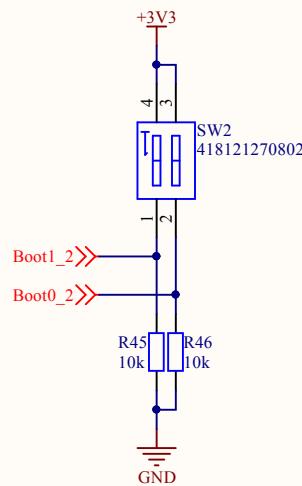
B

C

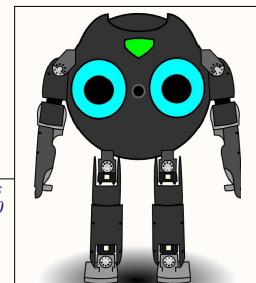
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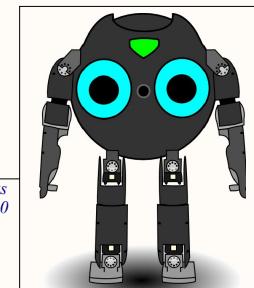
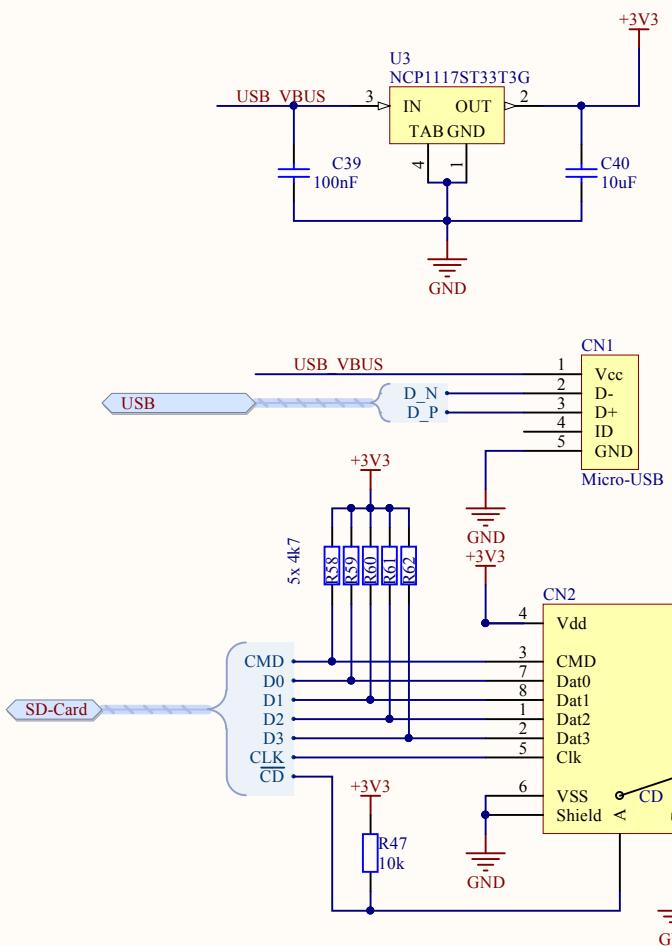
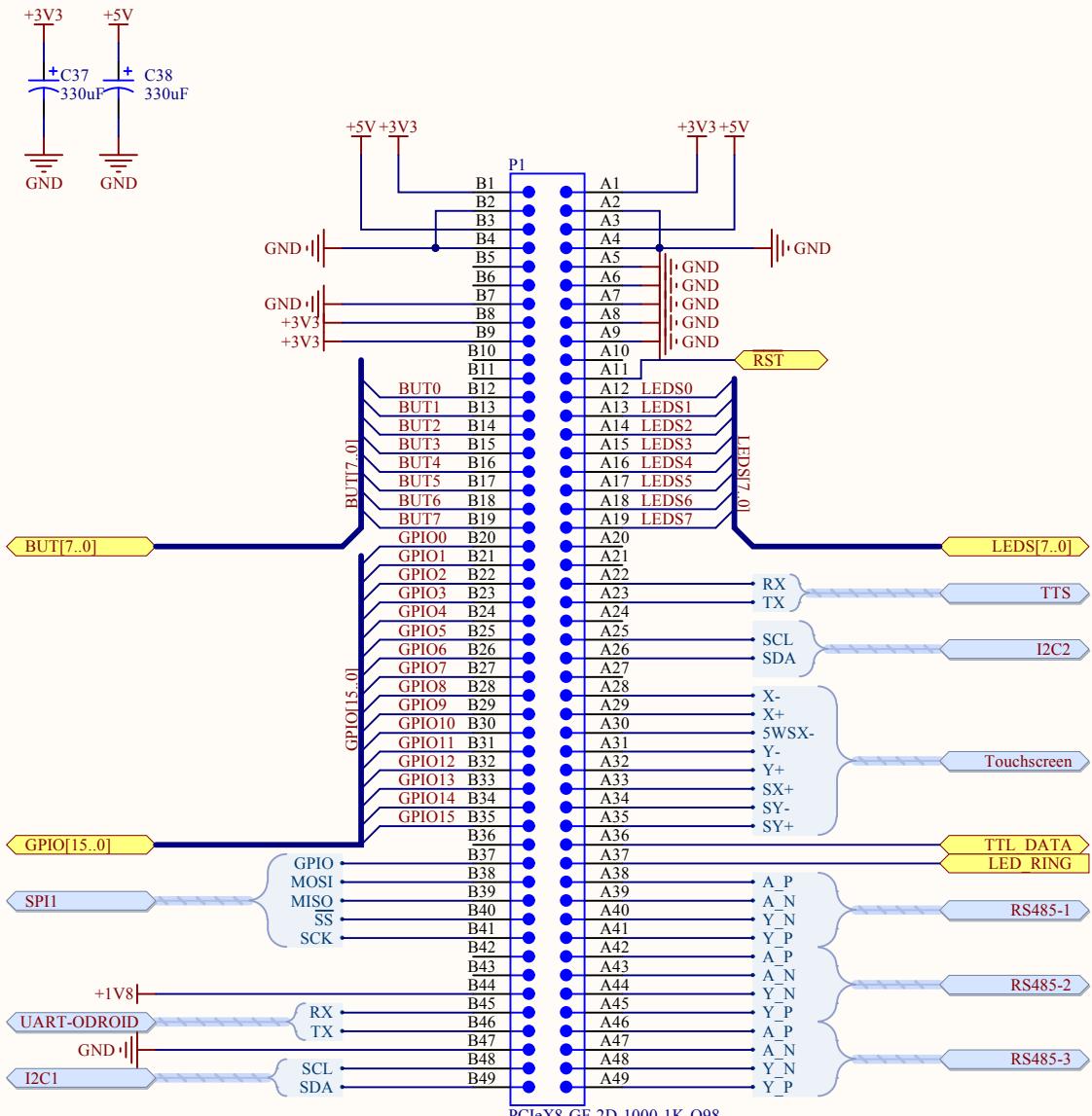
D

D



Project: Subboard.PrjPCB	Hamburg Bit-Bots Vogt-Kölln-Str. 30 22527 Hamburg Germany www.bit-bots.de info@bit-bots.de
Title: Microcontroller 3 (Part A)	
Author: Marcel Hellwig	Rev: A
Date: 18.05.2015	Time: 11:04:29





Project:	Subboard.PrjPCB	Hamburg Bit-Bots Vogt-Kölln-Str. 22527 Hamburg Germany
Title:	PCIE-Connector	
Author:	Marcel Hellwig	Rev: A
Date:	18.05.2015	Time: 11:04:29
		Sheet 10 of 16

A

A

B

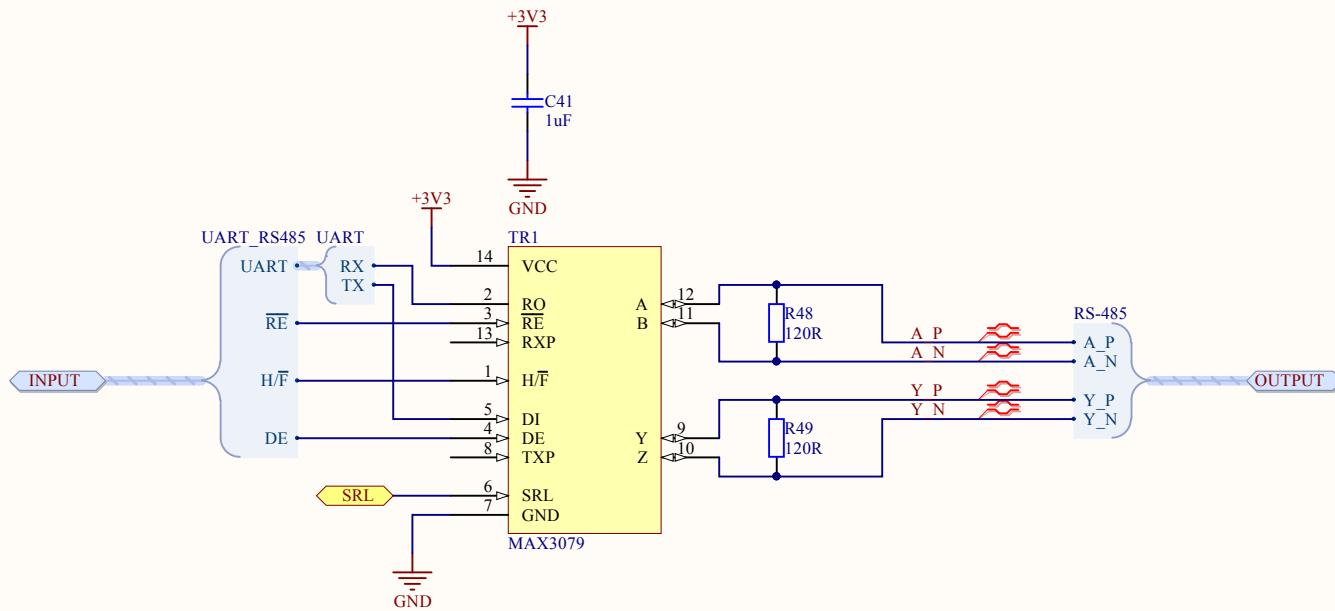
B

C

C

D

D



Project: Subboard.PrjPCB

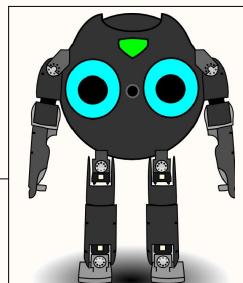
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Title: RS485

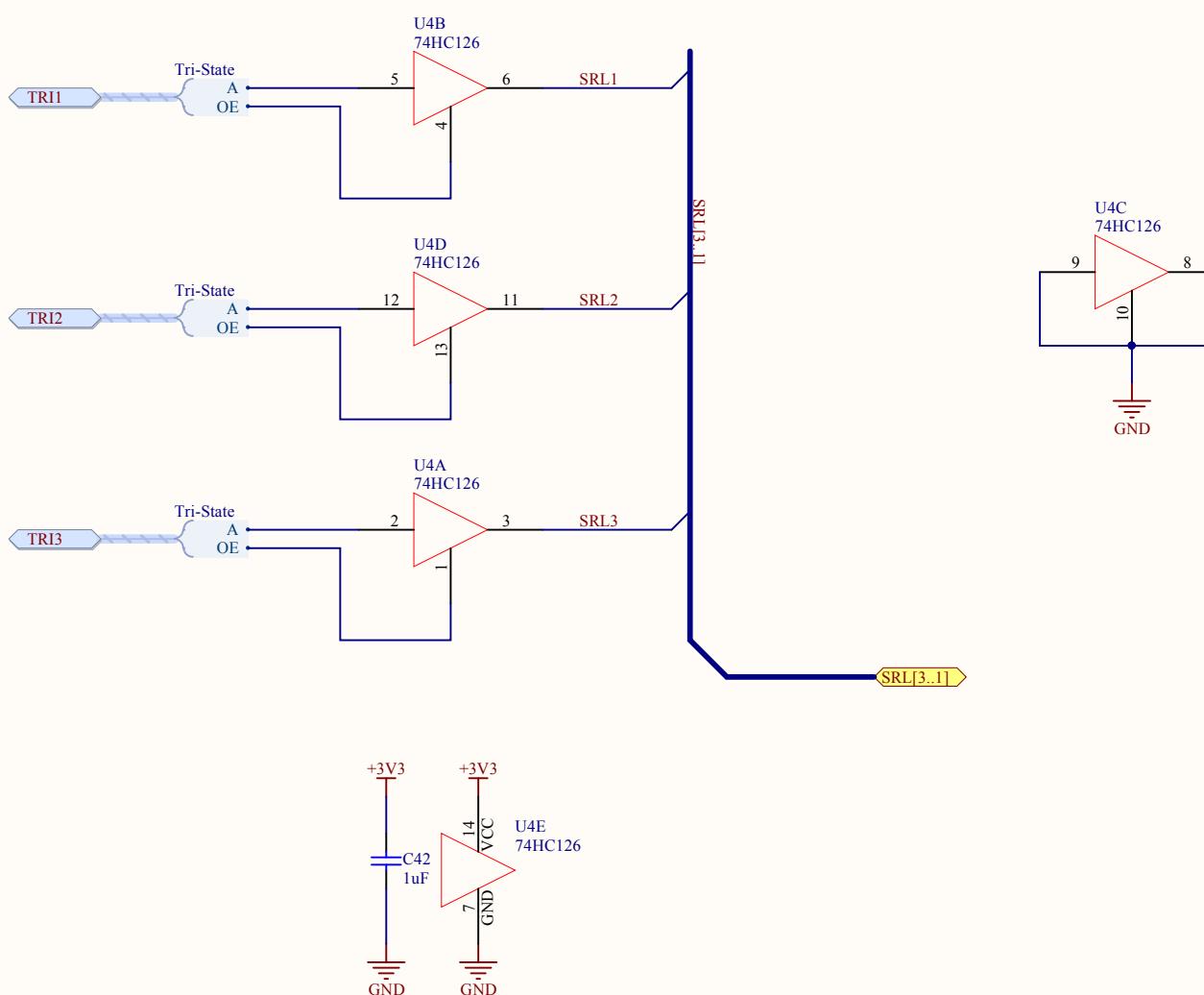
Author: Marcel Hellwig

Rev: A

Date: 18.05.2015 Time: 11:04:29 Sheet 11 of 16



A



Project: Subboard.PrjPCB

Title: Slow Rate Limit Unit for RS485

Author: Marcel Hellwig

Rev: A

Date: 18.05.2015 Time: 11:04:29 Sheet 12 of 16

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A

A

B

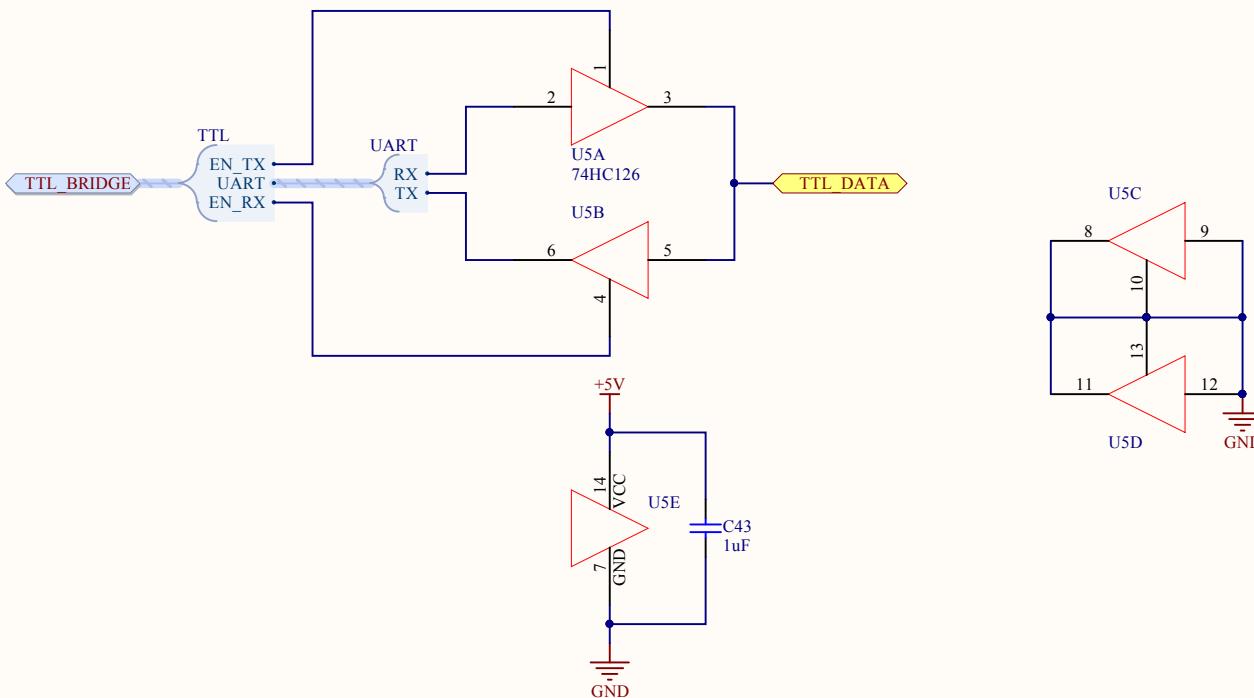
B

C

C

D

D



Project: Subboard.PrjPCB

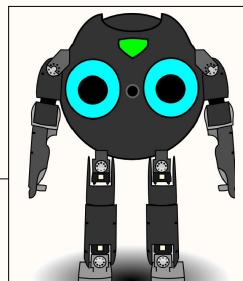
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Title: TTL

Author: Marcel Hellwig

Rev: A

Date: 18.05.2015 Time: 11:04:29 Sheet 13 of 16



A

A

B

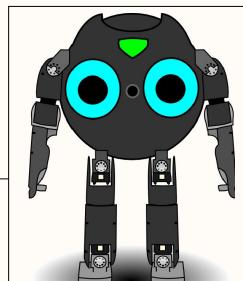
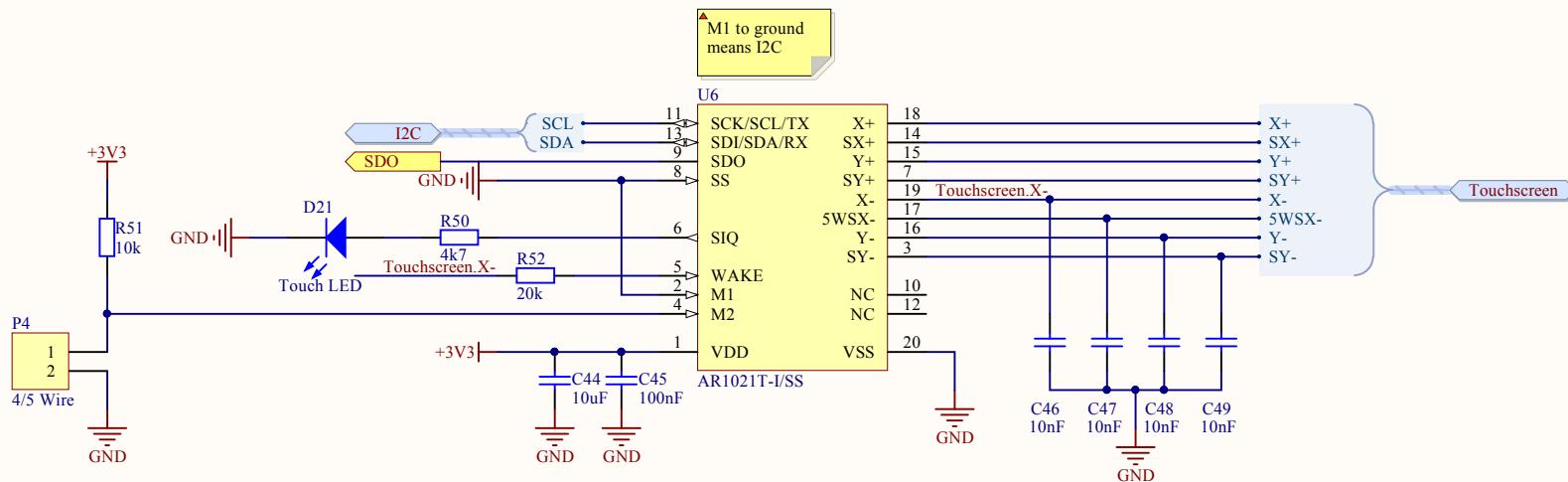
F

C

6

D

II



Project:	Subboard.PrjPCB		Hamburg Bit-Bots Vogt-Kölln-Str. 30 22527 Hamburg Germany
Title:	Touchscreen		
Author:	Marcel Hellwig	Rev: A	www.bit-bots.de
Date:	18.05.2015	Time: 11:04:29	Sheet 14 of 16 info@bit-bots.de

A

A

B

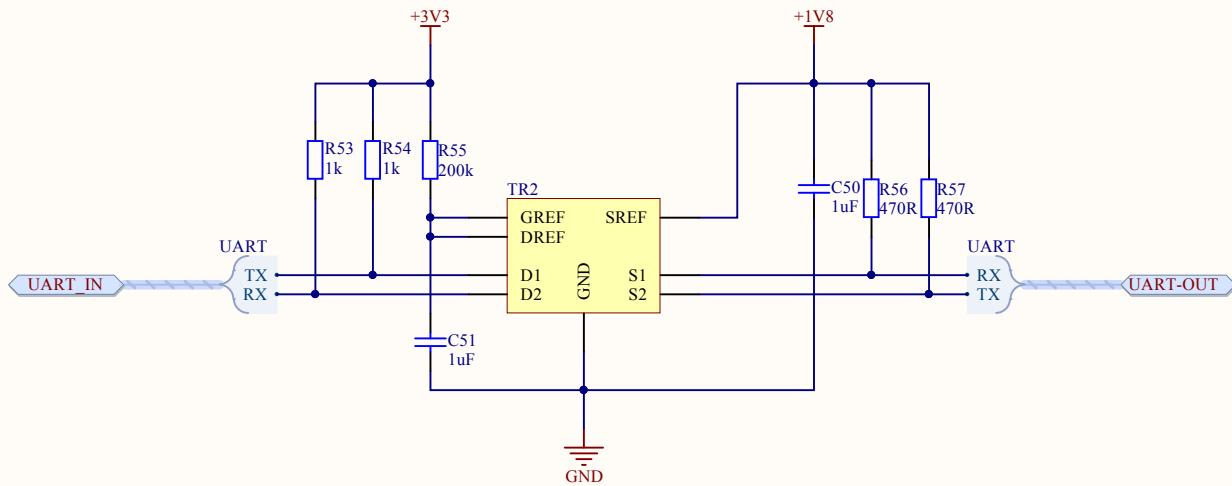
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D



Project: Subboard.PrjPCB

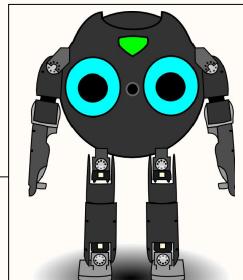
Title: Voltage-Data-Translation

Author: Marcel Hellwig

Rev: A

Date: 18.05.2015 Time: 11:04:29 Sheet 15 of 16

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A

B

C

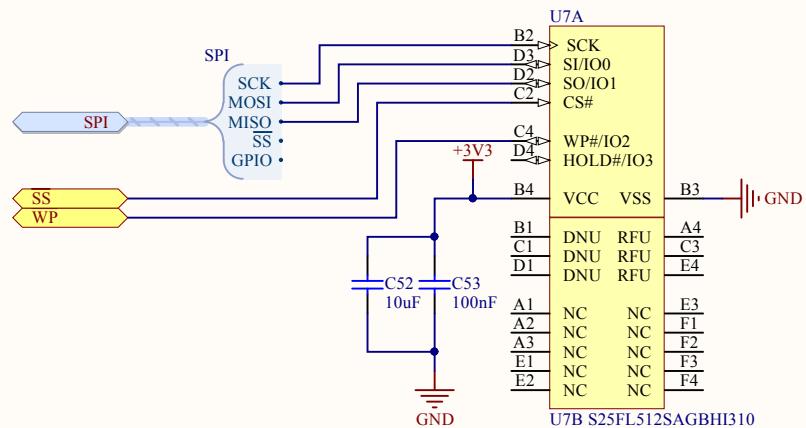
D

A

B

C

D



Project: Subboard.PrjPCB

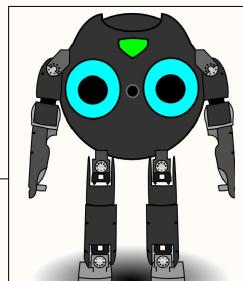
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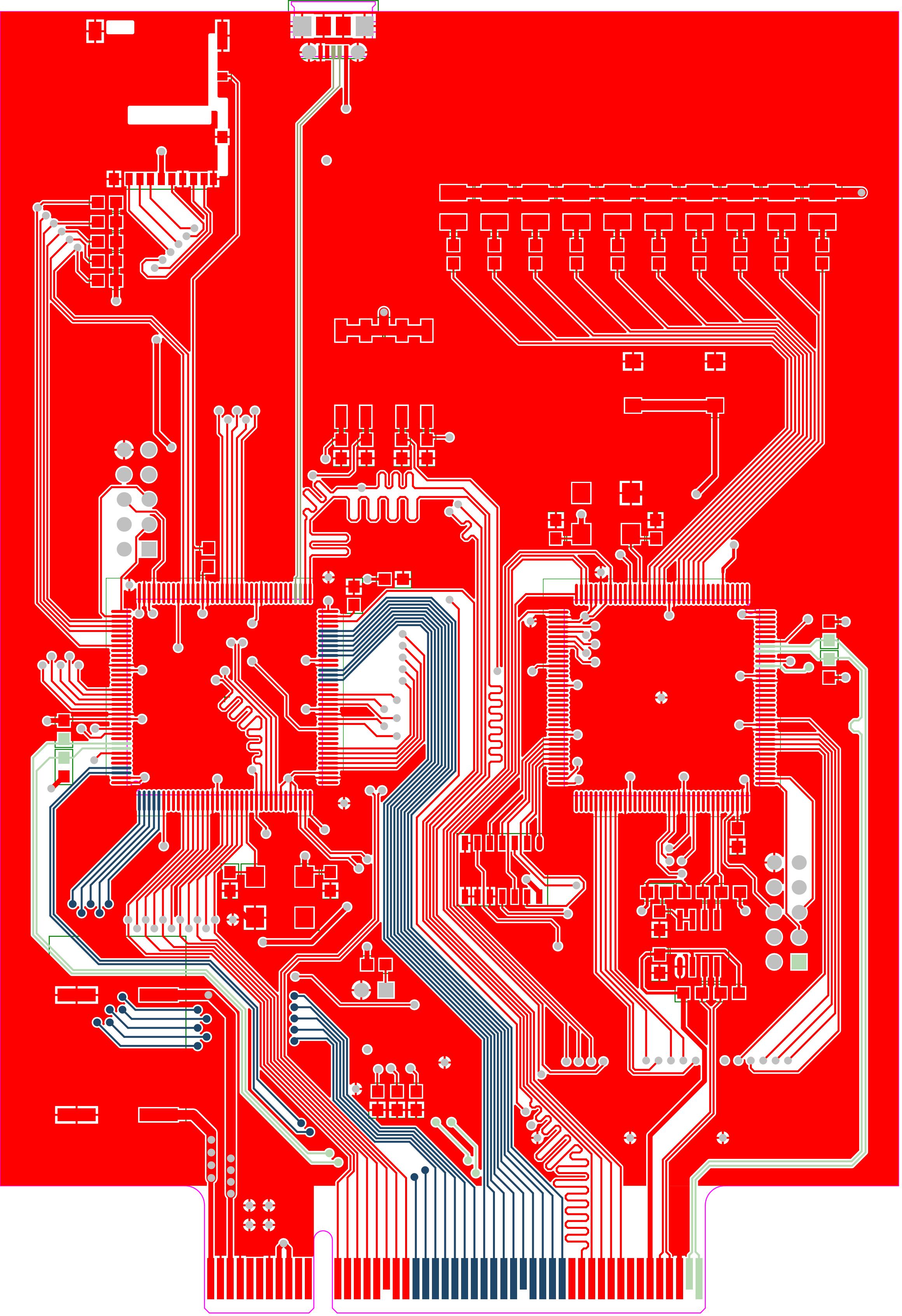
Title: Flash Section

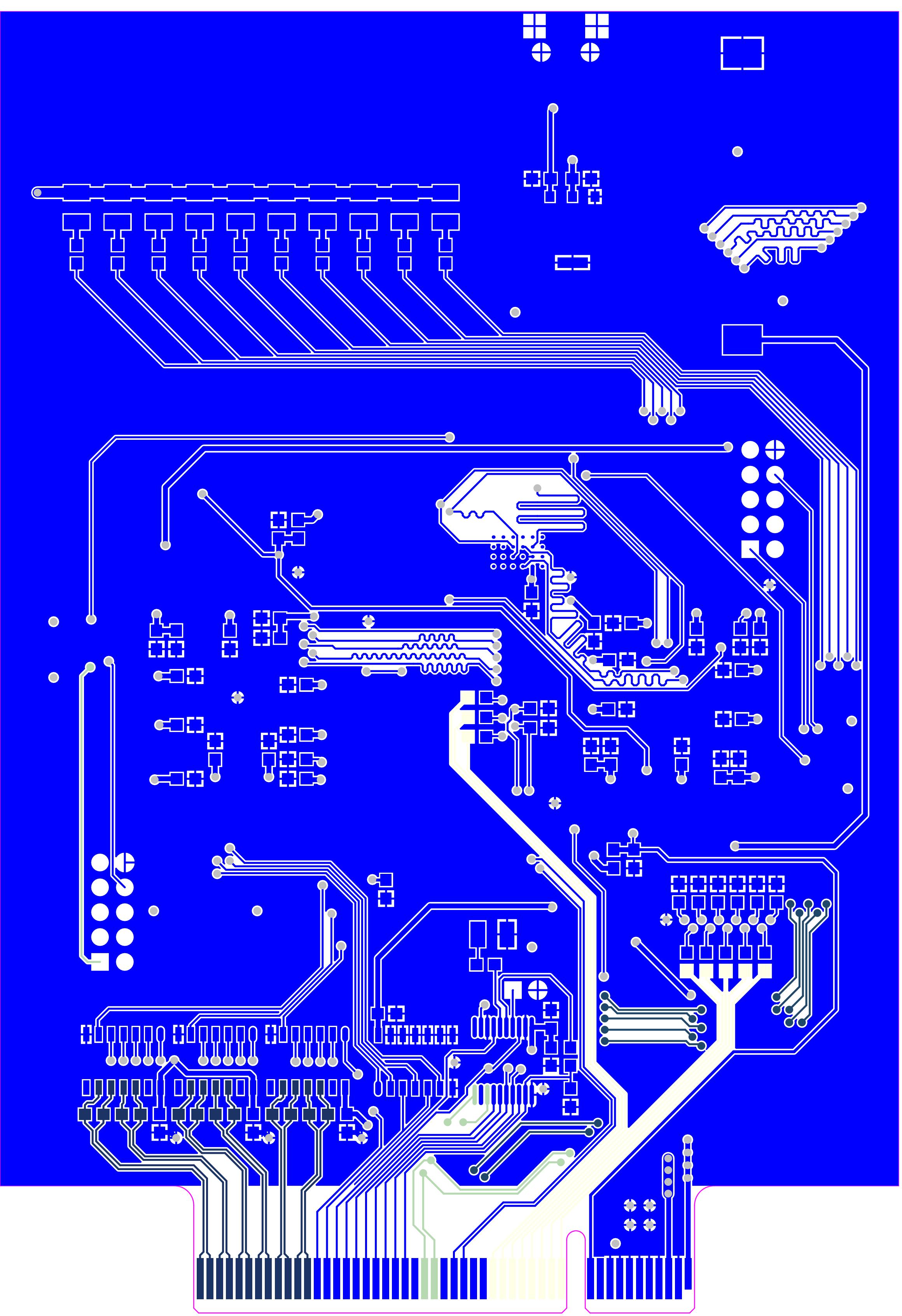
Author: Marcel Hellwig

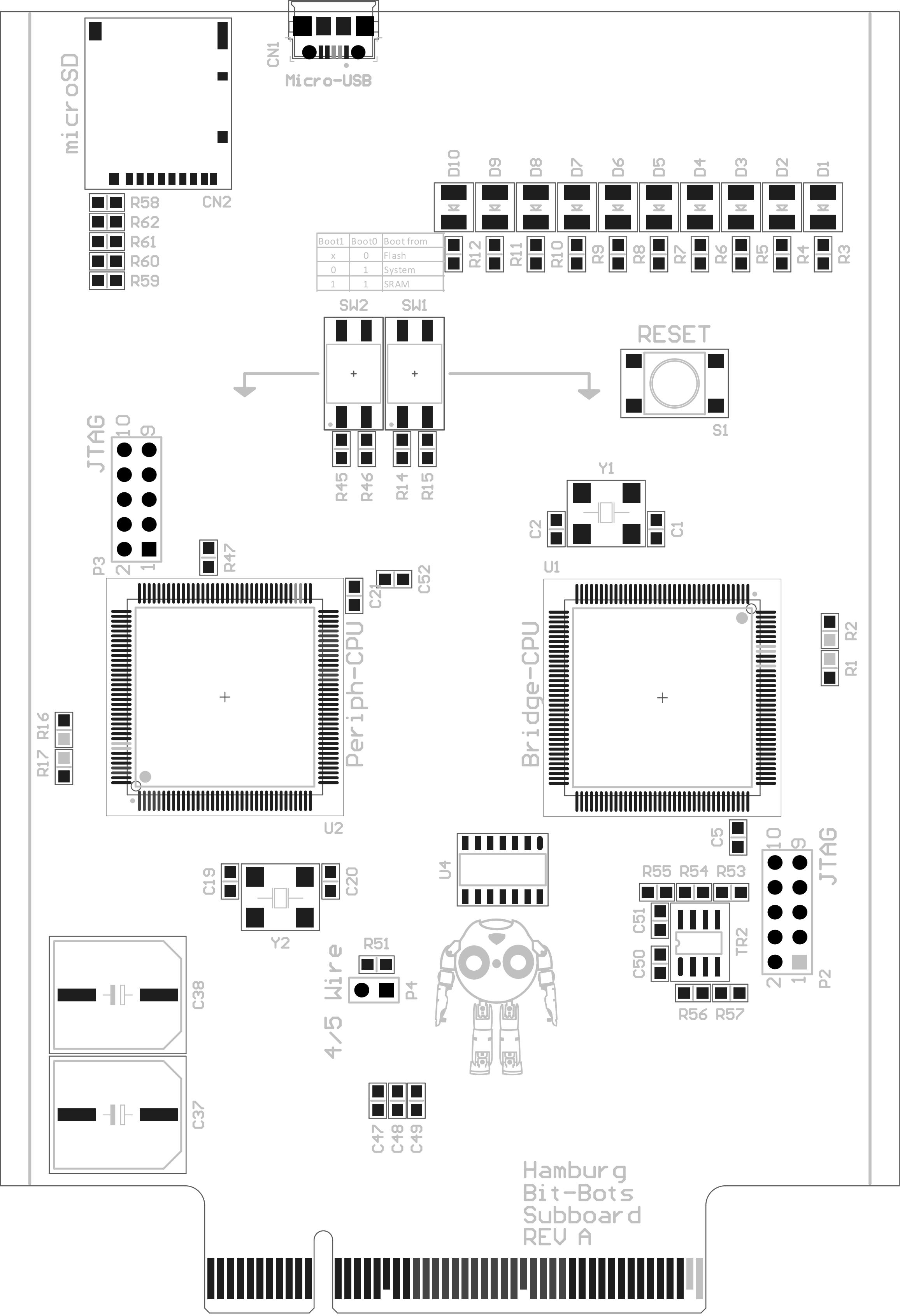
Rev: A

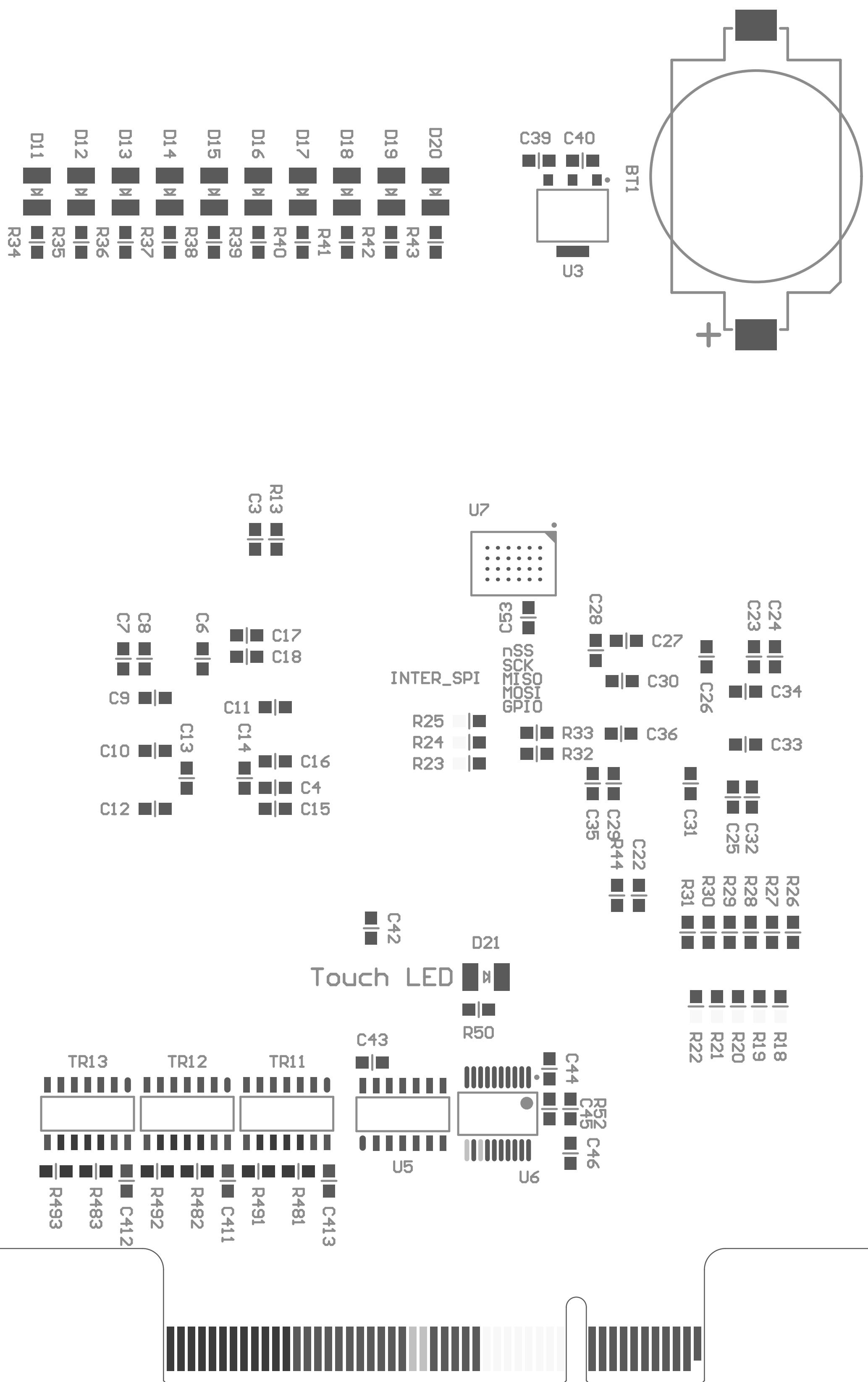
Date: 18.05.2015 Time: 11:04:29 Sheet 16 of 16











Symbol	Hit Count	Finished Hole Size	Plated	Hole Type
▽	212	0,4000mm	PTH	Round
○	2	0,6000mm	PTH	Slot
☒	2	0,8500mm	PTH	Round
❖	22	0,9000mm	PTH	Round
	238 Total			

Slot definitions : Rout Path Length = Calculated from tool start centre position to tool end centre position.
Hole Length = Rout Path Length + Tool Size = Slot length as defined in the PCB layout

