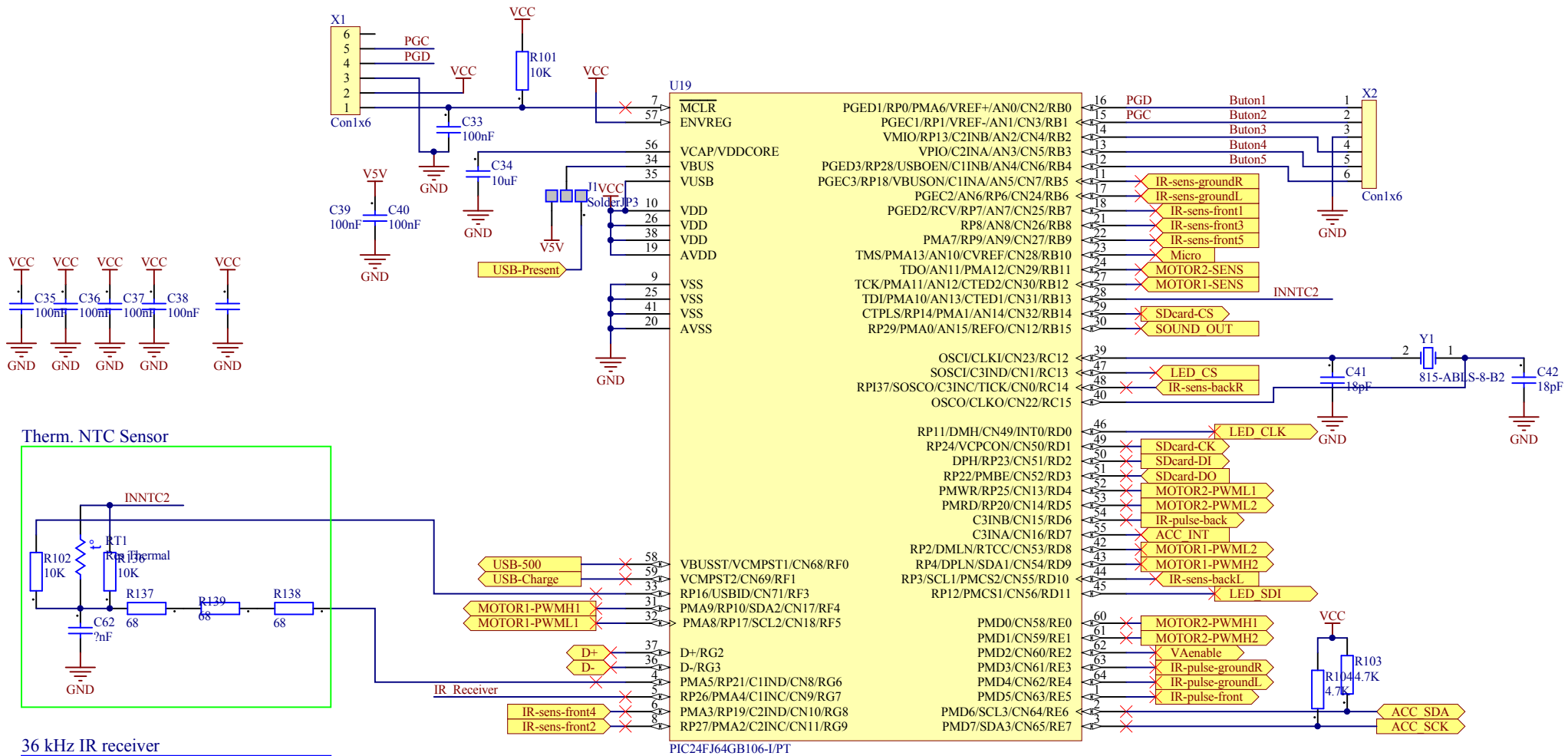
Project **thymio2-main.PrjPCB**Part **Thymio2  
PCB principal**File : **thymio2-main.SchDoc**Date:  
13.01.2011  
14:15:01Revision: **A**

Page 1 de 9

Michael Bonani  
STI-IMT-LSRO1  
EPFL  
CH-1015 LAUSANNE

Laboratoire de Systèmes Robotiques





Therm. NTC Sensor

36 kHz IR receiver

Project **thymio2-main.PrjPCB**

Part **Thymio2  
PCB principal**

File : **microcontrleur.SchDoc**

Date:  
13.01.2011  
14:15:01

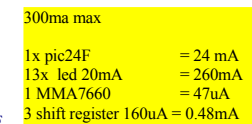
Revision: **A**

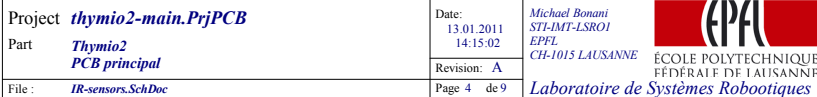
Page 2 de 9

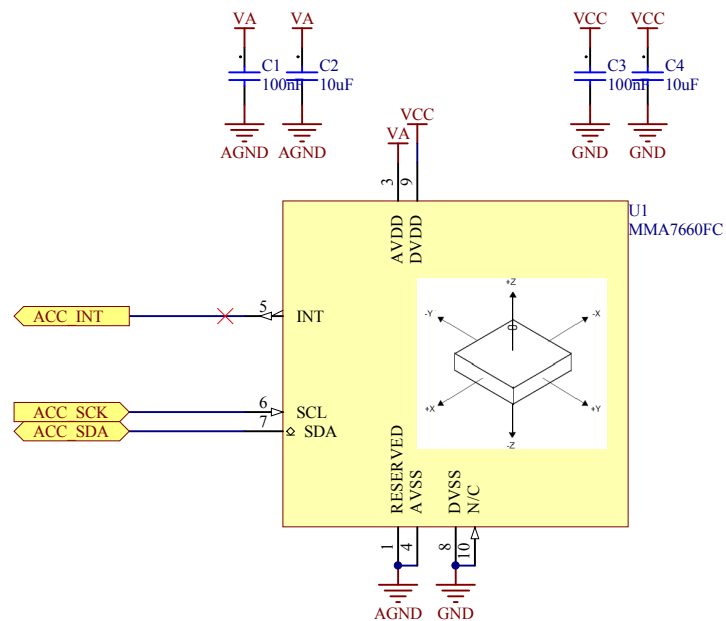
Michael Bonani  
STI-IMT-LSRO1  
EPFL  
CH-1015 LAUSANNE

Laboratoire de Systèmes Robotiques









Project *thymio2-main.PrjPCB*

Part *Thymio2  
PCB principal*

File : *accelerometer.SchDoc*

Date:  
13.01.2011  
14:15:02

Revision: \*

Page 5 de 9

*Michael Bonani  
STI-IMT-LSRO1  
EPFL*

\*

\*



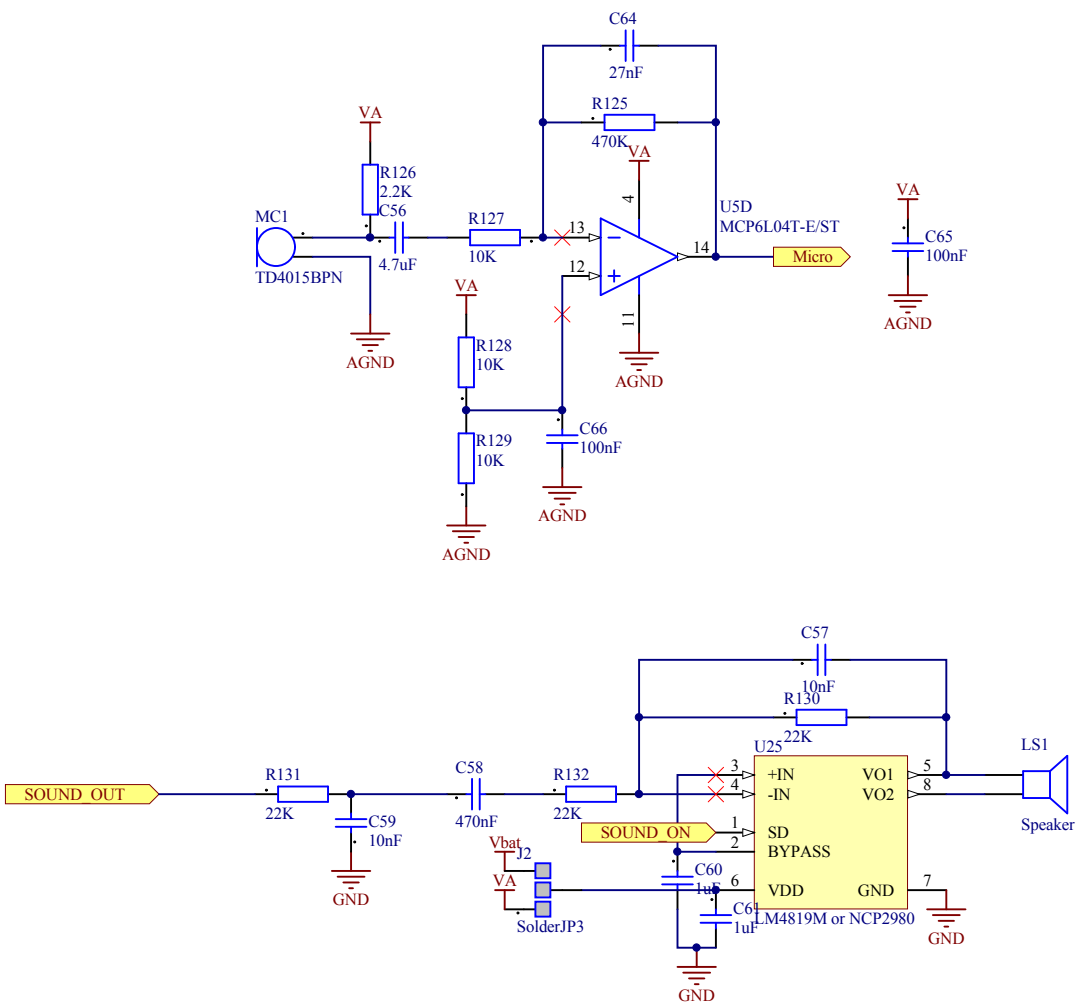


1

2

3

4

Project **thymio2-main.PrjPCB**Part **Line 1 of project part**  
**Line 2 of project part**File : **sound.SchDoc**Date:  
13.01.2011  
14:15:02Revision: **A**

Page 8 de 9

Daniel Burnier  
STI-IMT-LSRO1  
EPFL  
CH-1015 LAUSANNE

Laboratoire de Systèmes Robotiques



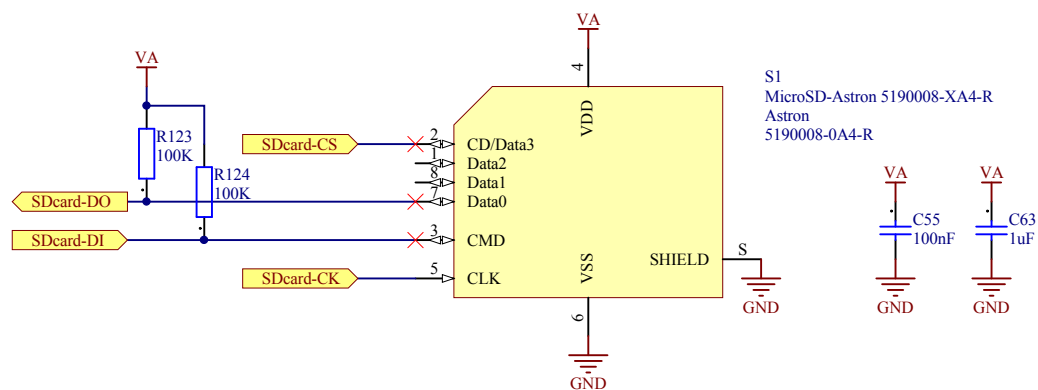
1

2

3

4





Project **thymio2-main.PrjPCB**

Part **Line 1 of project part**  
**Line 2 of project part**

File : **SDcard.SchDoc**

Date:  
13.01.2011  
14:15:02

Revision: **A**

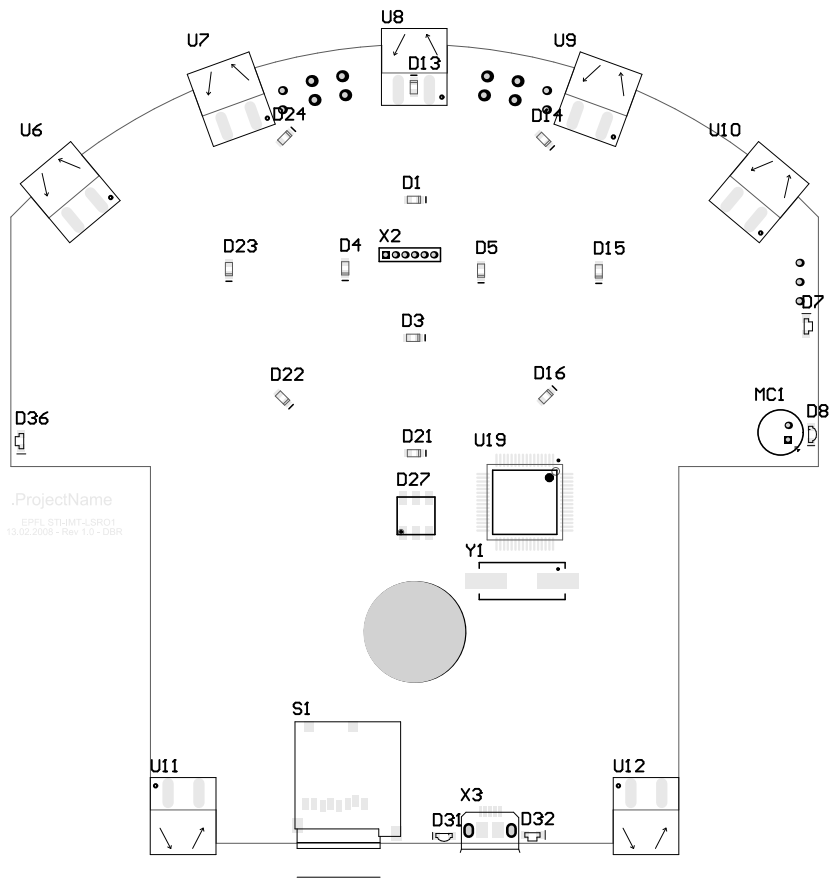
Page 9 de 9

Daniel Burnier  
STI-IMT-LSRO1  
EPFL  
CH-1015 LAUSANNE

Laboratoire de Systèmes Robotiques



Quantity	Comment	LibRef	Designator	Description	Footprint	Supplier	Supplier Nr
2	Motor	Motor	B1, B2	Motor, General Kind	RB5-10.5		
1	Battery	Battery	BT1	Multicell Battery	BAT-2		
33	100nF	100nF[/\ ]0603[/\ ]1	C1, C3, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C22, C23, C24, C25, C26, C27, C28, C29, C30, C33, C35, C36, C37, C38, C39, C40, C53, C54, C55, C56, C56	Capacitor	RESC1608X06L	Farnell	1288255
6	10uF	10uF[/\ ]0603[/\ ]1	C2, C4, C34, C46, C51, C52	Capacitor	RESC1608X06L	Farnell	1463375
7	5nF	CAP-NP	C15, C16, C17, C18, C19, C20, C21	Capacitor	CAPC1608N		
10	4.7uF	4.7uF[/\ ]0603[/\ ]1	C31, C32, C43, C44, C45, C47, C48, C49, C50, C56	Capacitor	RESC1608X06L	Farnell	9227784
2	18pF	10pF[/\ ]0603[/\ ]3	C41, C42		RESC1608X06L	Farnell	6819815
2	10nF	10nF[/\ ]0603[/\ ]1	C57, C59	Capacitor	RESC1608X06L	Farnell	9406182
1	470nF	470nF[/\ ]0603[/\ ]1	C58	Capacitor	RESC1608X06L	Distrelec	623494
3	1uF	1uF[/\ ]0603[/\ ]1	C60, C61, C63	Capacitor	RESC1608X06L	Distrelec	623495
1	7nF	100nF[/\ ]0603[/\ ]1	C62	Capacitor	RESC1608X06L	Farnell	1288255
1	27nF	10nF[/\ ]0603[/\ ]1	C64	Capacitor	RESC1608X06L	Farnell	9406182
4	19-21SURC/ S530-A3/TR8	LED	D1, D3, D4, D5	SMD Red 0603 2V@20ma 56 mcd	DIOC1608X08N		
3	BT5050RGBC-T180	LED RGB SMD 2	D2, D6, D27	\$0.027/ 2000k	LEDSDM05		
12	27-21SURC/ S530-A3	LED	D7, D8, D10, D11, D12, D17, D18, D25, D26, D32, D35, D36	SMD Red led right angle mount 2V@20ma 57mcd	27-21 Everlight		
5	LTST-S220KGKT	LED	D8, D28, D29, D30, D31	SMD Green led right angle mount 2V@20ma 35mcd	LITEON-sideview		
8	598-8070-107F	LED	D13, D14, D15, D16, D21, D22, D23, D24	SMD Green 0603 2V@20ma 20mcd	DIOC1608X08N		
2	SSL-LX3044HD	LED	D19, D20	Red led 2V@20ma 57mcd	Led_TH_3mm_20mm		
2	BAT54S	BAT54S	D33, D34	Schottky Barrier Double Diode	SOT23_N		
1	27-21/BHC-AN1P2/3C	LED	D37	SMD Blue led right angle mount 3.3V@20ma 28mcd	27-21 Everlight Blue		
1	Speaker	Speaker	LS1	Loudspeaker	PIN2		
1	TD4015BPN	Micro1	MC1	Omnidirectional Back Electret Condenser Microphone	MICRO_PANASONIC_WM-64PN		
38	BC817-40	BC817-40	Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q10, Q11, Q12, Q13, Q14, Q15, Q16, Q17, Q18, Q19, Q20, Q21, Q22, Q23, Q24, Q25, Q26, Q27, Q28, Q29, Q30, Q31, Q32, Q33, Q34, Q35, Q36, Q37, Q38	NPN General-purpose Transistor	SOT23_N		
14	4.7K	4.7K[/\ ]0603[/\ ]1	R1, R2, R57, R59, R61, R63, R64, R65, R62, R63, R94, R103, R104, R142	Resistor	RESC1608X06L	Distrelec	715604
11	33	RES	R3, R5, R66, R67, R70, R71, R72, R73, R96, R99, R100	120, Resistor	INDC1608N		
30	1k	RES	R4, R6, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R44, R45, R46, R47, R48, R49, R50, R51	120, Resistor	INDC1608N		
7	10k	RES	R7, R8, R9, R10, R11, R42, R43	120	INDC1608N		
8	2.2K	2.2K[/\ ]0603[/\ ]1	R32, R33, R34, R35, R41, R52, R53, R126	Resistor	RESC1608X06L	Distrelec	715596
7	6.2	RES	R36, R37, R38, R39, R40, R54, R55	120	INDC1608N		
33	68	68K[/\ ]0603[/\ ]1	R56, R58, R60, R62, R66, R67, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85, R86, R87, R88, R89, R90, R91, R95, R96, R97, R133, R134, R135, R137, R138, R139	Resistor	RESC1608X06L	Distrelec	715632
8	10K	10K[/\ ]0603[/\ ]1, 10K[/\ ]0603[/\ ]2	R101, R102, R109, R110, R127, R128, R129, R136	Resistor	RESC1608X06L	Distrelec, Farnell	715612, 9330399
1	100	RES_ACORT	R105	Resistance	RESC1608X06N		
2	180R	180R[/\ ]0603[/\ ]1	R106, R107	Resistor	RESC1608X06L	Distrelec	715570
1	1K	1K[/\ ]0603[/\ ]1	R108	Resistor	RESC1608X06L	Distrelec	715588
11	100K	10K[/\ ]0603[/\ ]1, 100K[/\ ]0603[/\ ]1	R111, R112, R113, R114, R119, R120, R121, R122, R123, R124, R141	Resistor	RESC1608X06L	Distrelec	715612, 715636
2	2.7K	2.2K[/\ ]0603[/\ ]1	R115, R116	Resistor	RESC1608X06L	Distrelec	715596
2	8.2K	8.2K[/\ ]0603[/\ ]2	R117, R118	Resistor	RESC1608X06L	Farnell	9331565
1	470K	470K[/\ ]0603[/\ ]1	R125	Resistor	RESC1608X06L	Distrelec	715652
3	22K	22K[/\ ]0603[/\ ]1	R130, R131, R132	Resistor	RESC1608X06L	Distrelec	715620
1	270K	270K[/\ ]0603[/\ ]2	R140	Resistor	RESC1608X06L	Farnell	9330941
1	Res Thermal	Res Thermal	RT1	Thermistor	RESC2012N		
1	MicroSD-Astron 5190008-XA4-R	SD-Card-Micro-ASLTRON 5190008-XA4-R	S1	MicroSD Card connector 5190008-XA4-R	Astron 5190008-XA4-R		
4	DMG1013T	DMG1013T	T1, T2, T3, T4	Transistor MOSFET 1 x P Pining : 1=G, 2=S, 3=D	SOT50P160X80-3N		
4	DMG1012T	DMG1012T	T5, T6, T7, T8	Transistor MOSFET 1 x N, Pining : 1=G, 2=S, 3=D	SOT50P160X80-3N		
1	MMA7660FC	MMA7660FC	U1	MMA7660FC: XYZ-AXIS ACCELEROMETER ±1.5 g	DFN50P300X300X100-12N		
2	ITR9909	ITR9909	U2, U3	Everlight Opto Interrupter	ITR9909_LONG		
2	MCP6L04T-E/ST	MCP6L04T-E/ST	U4, U5	1MHz, 85 µA Quad Op Amp, 14-Pin TSSOP, Extended Temperature Range, Tape and Reel	TSSOP-ST14_N		
7	ITR9909	ITR9909	U6, U7, U8, U9, U10, U11, U12	Everlight Opto Interrupter	ITR9909_EDGE		
5	MC74HC595ADTR2	MC74HC595ADTR2	U13, U14, U15, U16, U17	8-Bit Serial-Input/Serial or Parallel-Output Shift Register with Latched 3-State Outputs	948F-01_N		
3	AP7331-33WG-7	AP7331	U18, U22, U24	300mA Low Quiescent Current, Fast Transient LDO	SOT79SP285X100-5N		
1	PIC24FJ64GB106-I/PT	PIC24FJ64GB106-I/PT	U19	General Purpose 16-Bit Flash Microcontroller with USB On-The-Go, 64KB Flash, 16KB SRAM, 64-Pin TQFP, Industrial Temperature	TQFP-PT64_N		
1	IRM-3636T	TSOP32236	U20	IR Receiver Module (36 KHz) for Remote Control Systems	IR-receiver		
1	MCP73871-2AAI/ML	MCP73871-2AAI/ML	U21	Stand-Alone System Load Sharing and Li-Ion/Li-Polymer Battery Charge Management Controller, 4.2V, 20-Pin QFN, Industrial Temperature	QFN-ML20_N		
1	FAN3988	FAN3988	U23	USB/Charger and Over Voltage Detection Device	MLP 1.45x1mm		
1	LM4819M or NCP2980	LM4819M	U25	350mW Audio Power Amplifier with Shutdown Mode	MO8A_N		
1	Con1x6	Con1x6_1	X1	1 x 6 pins connector	TYCO_7-215079-6		
1	Con1x6	Con1x6	X2	1 x 6 pins connector	MHDR1X6		
1	Alastron R3190005-021-R	USB_MINIAB	X3	USB connector Micro B	Astron 3190005-x21-r		
1	815-ABLS-8-B2	HC49/4H_SMX	Y1	Surface Mount Quartz Crystal 8Mhz	HC49/4H_SMX		



.ProjectName  
EPFL STU-INT-4-SRO1  
13.02.2006 - Rev 1.0 - DBR

U20

