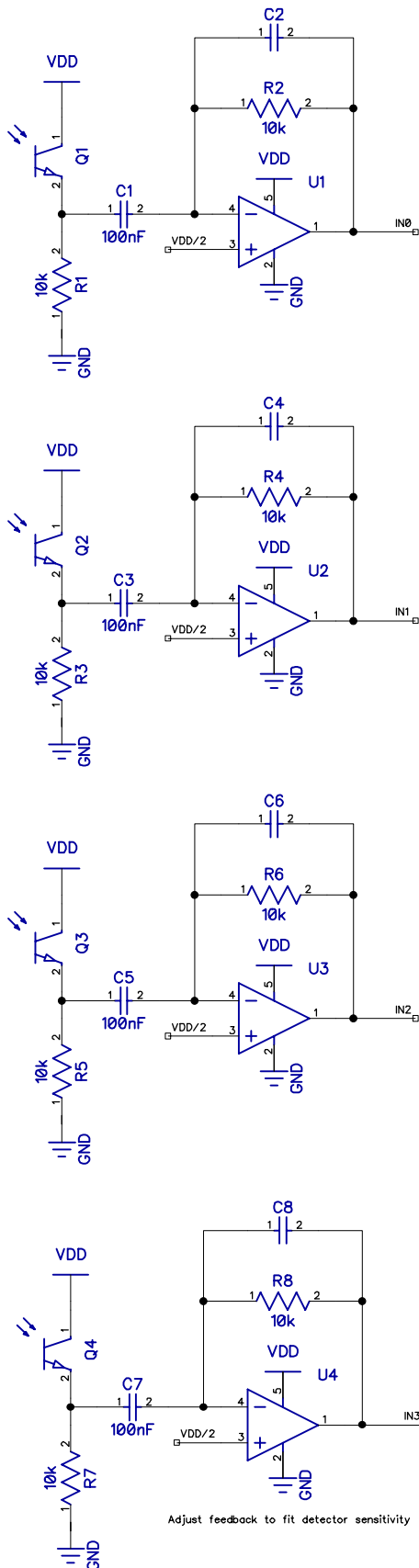
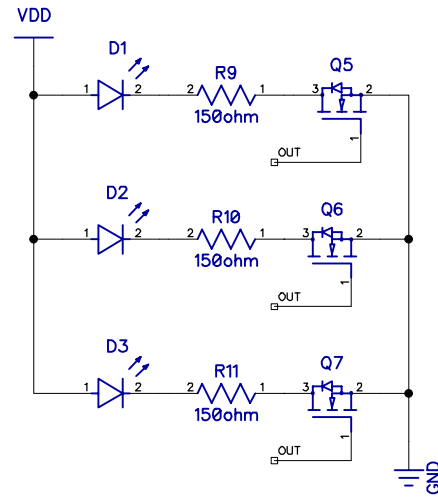


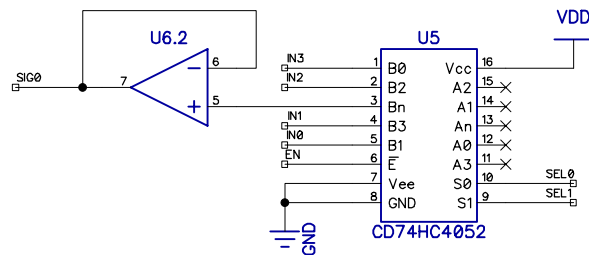
Receiver Array



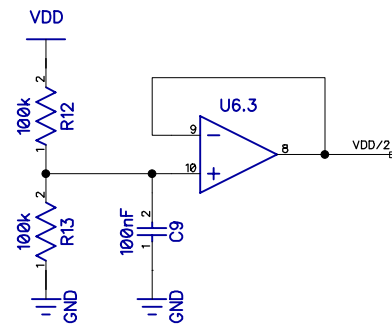
Transmitter Array



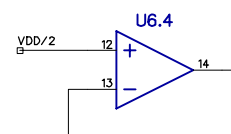
Analog Multiplexer



Virtual Ground



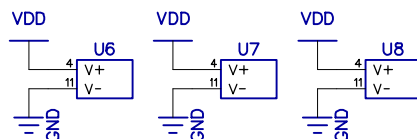
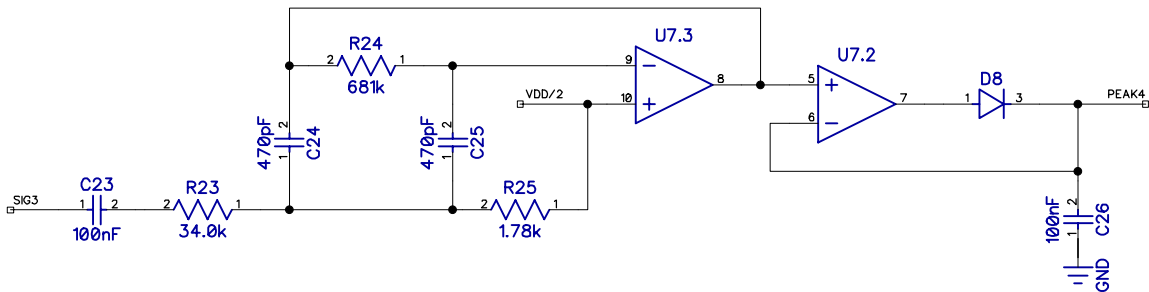
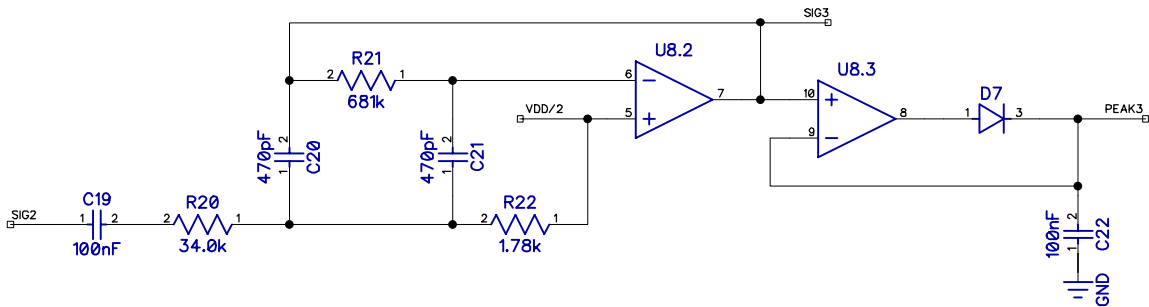
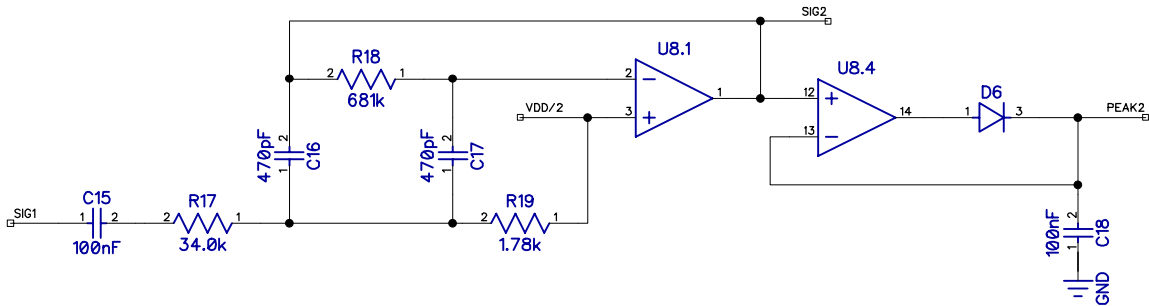
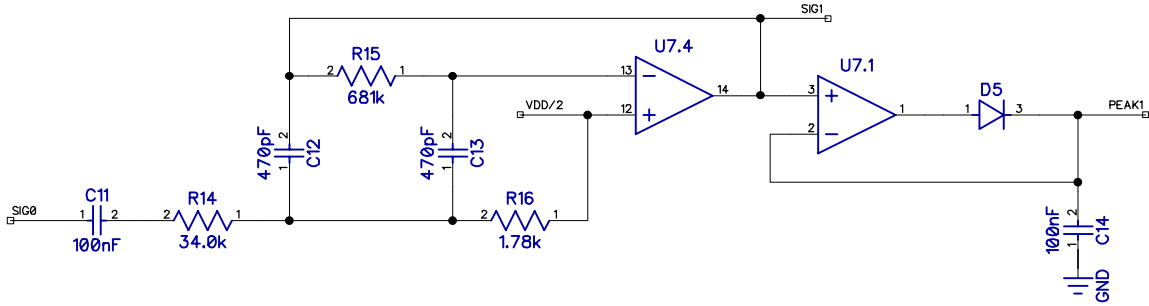
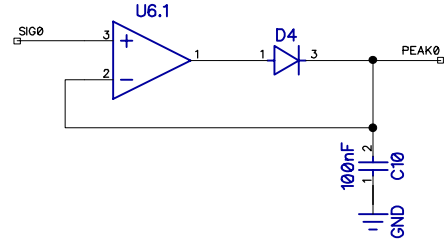
Unused Op Amp



Project		
Optical Direction and Range Sensor		
Size	Description	Rev
A4	EPFL BIOROB	3.0
Date 18 Dec 2011		Drawn by RGC
Sheet 1 of 4		

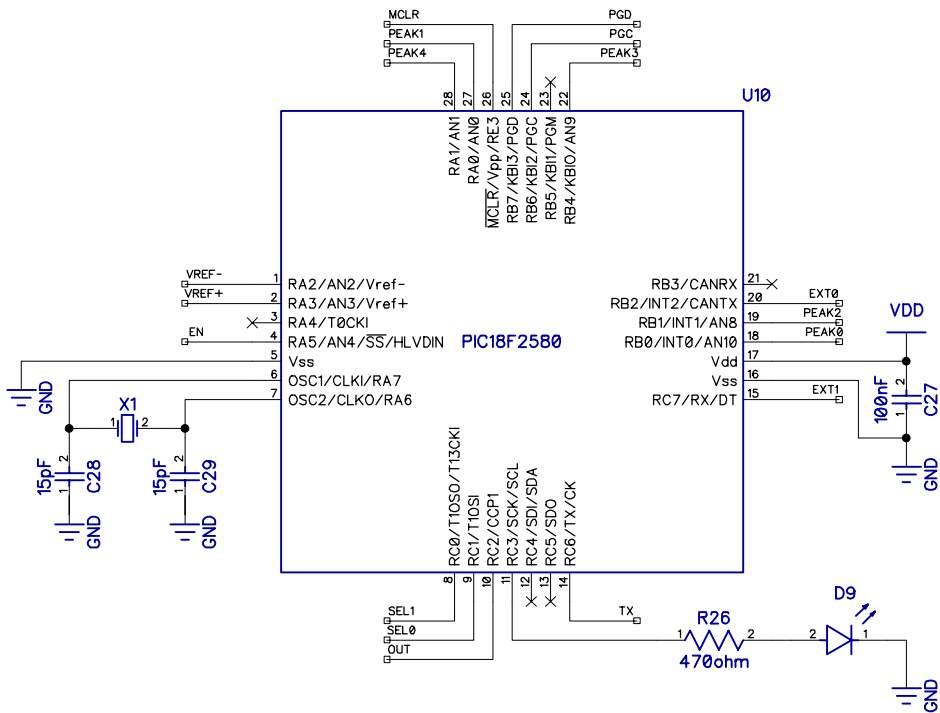
Peak Detectors

Cascaded 10 kHz Filters

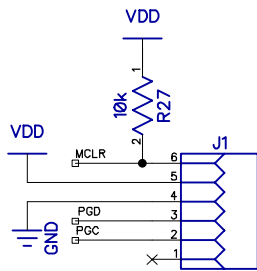


Project		
Optical Direction and Range Sensor		
Size	Description	Rev
A4	EPFL BIOROB	3.0
Date 18 Dec 2011		Drawn by RGC
Sheet 2 of 4		

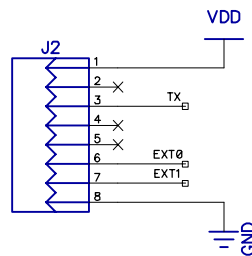
Microcontroller



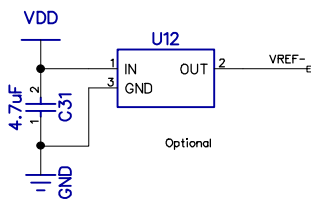
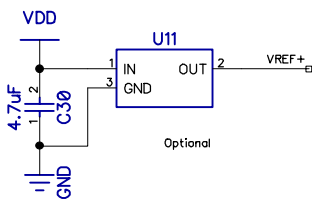
Programming Port



Interface Port



Reference Voltages



Project
Optical Direction and Range Sensor

Size	Description	Rev
A4	EPFL BIOROB	3.0

Date 18 Dec 2011	Drawn by RGC
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Bill of Materials

Type	RefDes	Pattern	Quantity
100nF CAP	C1, C3, C5, C7, C9-11, C14-15, C18-19, C22-23, C26-27	0402	15
470pF CAP	C12-13, C16-17, C20-C21, C24-25	0402	8
FEEDBACK CAP	C2, C4, C6, C8	0402	4
15pF CAP	C28-29	0402	2
4.7uF CAP	C30-31	0402	2
TSKS5400	D1-3	SIDE-LENS	3
BAS16	D4-8	SOT-23	5
LED	D9	0402	1
MICRO-MATCH 215079-6	J1	MM6	1
MICRO-MATCH 215464-8	J2	MM8	1
TEKT5400	Q1-4	SIDE-LENS	4
2N7002	Q5-7	SOT-23	3
10k RES	R1-8, R27	0402	9
150ohm RES	R9-11	0603	3
470ohm RES	R26	0402	1
100k RES	R12-13	0402	2
34.0k RES	R14, R17, R20, R23	0402	4
681k RES	R15, R18, R21, R24	0402	4
1.78k RES	R16, R19, R22, R25	0402	4
TLV2771	U1-4	SOT-23-5	4
PIC18F2580	U10	QFN28	1
VOLTAGE REF	U11-12	SOT-23	2
CD74HC4052	U5	S016	1
TLV2774	U6-8	S014	3
CRYSTAL HC49	X1	HC49	1

Project Optical Direction and Range Sensor		
Size A4	Description EPFL BIOROB	Rev 3.0
Date 18 Dec 2011		Drawn by RGC
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