

Parts List		New Anti-biofouling Shutter					Copyright © 2002 Monterey Bay Aquarium Research Institute	
		Monterey Bay Aquarium Research Institute 7700 Sandholdt Rd. Moss Landing, CA 95039-9644			Drawn by: Lance McBride		All information herein is considered proprietary and may not be copied, duplicated, or transmitted without the express permission of Monterey Bay Aquarium Research Institute	
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SORT	Item	Reference Designator	Qty	Manufacturer	Manufacturer Part Number	Digikey Part Number	Part Description	
	1		1	MBARI	101357		PCB, Smart Shutter Controller	
1	2	C1, C2, C3, C4, C5, C6, C7, C8, C12, C13, C14, C15, C16, C17, C18, C19	16	Kemet	C0805C104M5RACTU	399-1169-1-ND	Capacitor, Ceramic 0.1UF 20% 50V	
1	3	C9, C10, C11	3	AVX	TPSE226M035R0300	(AVNET)	Capacitor, Low ESR Tantalum SMT 22uF 10% 35V 300mOhm	
2	4	R1, R2, R3, R4, R5, R6, R17, R19, R20, R21, R24, R25, R26, R27	14	Panasonic	ERA-6YEB103V	P10KZCT-ND	Resistor, METAL FILM SMT 10kOhm, 0.1%, 0.1W	
2	5	R22	1	Panasonic	ERJ-6GEYJ115V	P1.1MACT-ND	Resistor, Thick Film 1.1M 5% 1/10W	
2	6	R15, R16	2	Panasonic	ERJ-6ENF1400V	P140CCT-ND	Resistor, Thick Film 140ohm 1% 1/10W	
2	7	R12	1	Panasonic	ERJ-6ENF60R4V	P60.4CCT-ND	Resistor, Precision Thick Film 60.4 1% 1/10W	
2	8	R13, R14	2	Panasonic	ERJ-6ENF1470V	P147CCT-ND	Resistor, Precision Thick Film 147 1% 1/10W	
2	9	R7, R8, R9, R10	4	Panasonic	ERJ-6GEYJ361V	P360ACT-ND	Resistor, Precision Thick Film SMT 360 1% 0.1W	
2	10	R11	1	Panasonic	ERJ-14NF7500U	P750AACT-ND	Resistor, Precision Thick Film 750 1% 1/4W	
2	11	R18, R23	2	Panasonic	ERJ-6GEY0R00V		Resistor, SMT 0.0Ohm, 5%, 0.1W	
3	12	L1	1	Coilcraft	D01608-223	(Coilcraft)	Inductor, 22uH, 20% 0.7A	
4	13	J2	1			(MBARI Stock)	Connector, 2X3 6-PIN 0.100" HEADER	
4	14	J8	1	Sullins	PTC36SFAN (modified)	S1212-36-ND	HEADER, 1x6 6-pin 0.100" SIP header	
4	15	S1	1	BCC	CAS-120TB	CAS120GCT-ND	Switch, SPDT SMT	
4	16	J3, J5, J6	3	Hirose	DF13-3P-1.25SDA	H2192-ND	Connector, TH 1.25mm 1x3pin - MALE	
4	17	J1	1	Sullins	PTC36SFAN (modified)	S1212-36-ND	HEADER, 1x6 6-pin 0.100" SIP header	
4	18	J4	1	Hirose	DF13-10P-1.25DSA	H2198-ND	Connector, TH 1.25mm 1x10pin - MALE	
4	19	F1	1	Bourns	MF-SM100-02	MF-SM100CT-ND	Fuse, Resettable 1.10A (hold) 2.20A (trip)	
5	20	D1	1	Diodes, Inc.	1N4148W-7	1N4148WCT-ND	Diode, SMT GENERAL PURPOSE FAST SWITCHING DIODE	
5	21	Y1	1	Fox Electronics	JITO-2-DC3AE-4.000	(Fox)	IC, Oscillator HCMOS 4.000MHz 100ppm 3.3V	
5	22	D5, D6, D7, D8, D9, D10	6	Lumex	SSL-LX15GC-RP-TR	67-1379-1-ND	LED, Green	
5	23	Q3, Q4	2	International Rectifier	IRFR120NTRL	IRFR120NTRL-ND	Transistor, N-MOSFET 100V 9.4A	
5	24	Q5, Q6, Q7, Q8	4	International Rectifier	IRLML2803TR	IRLML2803CT-ND	Transistor, N-MOSFET ENHANCEMENT MODE	
5	25	D3, D4	2	On Semiconductor	MMBZ5232B-7	MMBZ5232BDICT-ND	Diode, 5.6V Zener ESD Protection	
5	26	Q9, Q10	2	International Rectifier	IRFR5410	IRFR5410-ND	Transistor, P-MOSFET 100V 13A	
6	27	U2	1	Atmel	AT45DB011B-SC	AT45DB011B-SC-ND	IC, Flash Memory 1Mbit 2.7V	
6	28	U3	1	Maxim	MAX3320TCAP	(Maxim)	IC, RS-232 Transceiver with Power Reset	
6	29	U9	1	Maxim	MAX3471CUA	(Maxim)	IC, RS-485 Transceiver	
6	30	U11	1	Xilinx	XCR3064XL-6-VQ44C	XCR3064XL-6VQ44C-ND	IC, CPLD 3.3V (MBARI #101358)	
6	31	U10	1	BURR-BROWN	OPT101P-J	OPT101P-J-ND	IC, PHOTODIODE WITH AMPLIFER 36V	
6	32	U1	1	Microchip	PIC16LF877-04/PT	PIC16LF877-04/PT-ND	IC, 8-bit Microcontroller	
6	33	U4, U5, U6, U7	4	NEC	PS2701-1	PS2701-1-ND	IC, Optocoupler High Speed 40V 3750Vrms	
6	34	U8	1	Texas Instruments	REG1117-3.3	REG1117-3.3-ND	IC, Voltage Regulator 3.3V 800mA	