

ID		Task Name	% complete	leces	Work	Duration	Start	Finish	Labor	Material
1		GiGi core	14%		103.5 days	55 days?	Wed 12/14/05	Tue 2/28/06	0	0
2		Final instrument modifications	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
3										
4		Refit system valves to Cheminert valves	41%		18.5 days	40 days?	Wed 12/14/05	Tue 2/7/06	0	0
5	 	Order new valves	100%		0.5 days	0.5 days	Wed 12/14/05	Wed 12/14/05	701312	701312
6		Split cost of valves	0%		0 days	0 days	Wed 1/4/06	Wed 1/4/06	0	800237
7		Valves arrive	0%		0 days	0 days	Wed 1/4/06	Wed 1/4/06	0	0
8										
9		Valve bracket redesign	100%		4 days	2 days?	Wed 1/4/06	Thu 1/5/06	0	0
23		Valve placement in instrument	90%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
38		Protocol redevelopment	0%		10 days	10 days	Wed 1/25/06	Tue 2/7/06	900612	0
39		Refit completion	0%		4 days	20 days?	Wed 1/4/06	Tue 1/31/06	0	0
41										
42		modify bulkhead valves - eliminate solenoid	0%		35 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
58										
59		Software	0%		50 days	40 days	Wed 1/4/06	Tue 2/28/06	0	0
64										
65		shutter on sample intake port (50m depth max)	0%		41 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
81										
82		Software	0%		35 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
85										
86		Finish surface surface water housing for GiGi	0%		3 days	35 days	Wed 1/25/06	Tue 3/14/06	0	0
95										
96		Mooring 2 battery configuration	0%		0 days	27 days?	Wed 1/4/06	Thu 2/9/06	0	0
101										
102										
103										
104										
105										
106		Tank Deployment	0%	98	1 day	1 day	Mon 3/6/06	Mon 3/6/06	0	0
107										
108										
109		Shallow water deployments	0%	106	60 days	149 days?	Wed 3/8/06	Mon 10/2/06	0	0
182										
183		Tech xfer	0%		309 days	236 days?	Wed 1/4/06	Wed 11/29/06	0	0
184		Build 3 copies using exisiting design and spec, based	0%		309 days	236 days?	Wed 1/4/06	Wed 11/29/06	0	0

ID		Task Name	% omplet	leces	Work	Duration	Start	Finish	Labor	Material
185		Pre-production	0%		120 days	172 days?	Wed 1/4/06	Thu 8/31/06	0	0
186		system	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
187		Investigate BC Tech subcontracts	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
188		Extending duration	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
189		Mechanical	0%		55 days	48 days?	Wed 1/4/06	Fri 3/10/06	0	0
190		Solid Works critical subassemblies	0%		25 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
191		Bid subassemblies	0%	190	2 days	1 day?	Thu 1/5/06	Thu 1/5/06	0	0
192		Procure subassemblies	0%	191	1 day	1 day?	Fri 1/6/06	Fri 1/6/06	0	0
193		Solid Works complete model & print packag	0%	192	0 days	0 days	Fri 1/6/06	Fri 1/6/06	0	0
194		Bid print package	0%	193	1 day	10 days	Mon 1/9/06	Fri 1/20/06	0	0
195		Cost estimate of COTS parts + sparse	0%		5 days	47 days	Wed 1/4/06	Thu 3/9/06	0	0
196		Order machined parts	0%	194	1 day	1 day?	Mon 1/23/06	Mon 1/23/06	0	0
197		Order COTS	0%	195	10 days	1 day?	Fri 3/10/06	Fri 3/10/06	0	0
198		Parts Inventory & Organization	0%	195	10 days	1 day?	Fri 3/10/06	Fri 3/10/06	0	0
199		Electrical	2%		25 days	172 days?	Wed 1/4/06	Thu 8/31/06	0	0
200		Investigate subcontracting cabling	0%		5 days	15 days	Wed 1/4/06	Tue 1/24/06	0	0
201		Investigate subcontracting boards	0%		1 day	5 days	Wed 1/4/06	Tue 1/10/06	0	0
202		Schematics Verified	0%		3 days	5 days	Fri 4/7/06	Thu 4/13/06	0	0
203		Lab space & staging area	50%		2 days	2 days?	Wed 1/4/06	Thu 1/5/06	0	0
204		Cost Estimate	0%	202	1 day	2 days	Fri 4/14/06	Mon 4/17/06	0	0
205		Order Parts	0%	204	3 days	7 days	Tue 4/18/06	Wed 4/26/06	0	0
206		Part inventory & Organization	0%	202	5 days	20 days	Fri 4/14/06	Thu 5/11/06	0	0
207		All EE Parts in House	0%		0 days	0 days	Thu 8/31/06	Thu 8/31/06	0	0
208		Document Package	0%		5 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
209		Software	0%		40 days	81 days?	Wed 1/4/06	Wed 4/26/06	0	0
210		Modularize scripting	0%		5 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
211		document all software	0%	210	10 days	40 days	Thu 1/5/06	Wed 3/1/06	0	0
212		software user manual	0%	211	15 days	40 days	Thu 3/2/06	Wed 4/26/06	0	0
213		Increase duration to 1 month	0%		10 days	20 days	Wed 1/4/06	Tue 1/31/06	0	0
214		Production	0%		147 days	236 days?	Wed 1/4/06	Wed 11/29/06	0	0
215		Documentation	0%		10 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
216		Software user manual	0%		10 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
217		Mechanical	0%		126 days	236 days?	Wed 1/4/06	Wed 11/29/06	0	0
218		All COTS parts in house	0%		0 days	0 days	Thu 8/31/06	Thu 8/31/06	0	0
219		All Fabricated parts in house	0%		0 days	0 days	Wed 1/4/06	Wed 1/4/06	0	0
220		Camera Jig	0%		3 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0

ID		Task Name	% complete	leces	Work	Duration	Start	Finish	Labor	Material
221		Subassembly	0%		81 days	38 days	Mon 9/4/06	Wed 10/25/06	0	0
222		Carosel	0%		5 days	2 days	Mon 9/4/06	Tue 9/5/06	0	0
223		Carosel mounting/top plate	0%	222	3 days	2 days	Wed 9/6/06	Thu 9/7/06	0	0
224		Syringes	0%	223	4 days	2 days	Fri 9/8/06	Mon 9/11/06	0	0
225		Manipulator Mechanical	0%	224	5 days	2 days	Tue 9/12/06	Wed 9/13/06	0	0
226		Clamps	0%	225	5 days	2 days	Thu 9/14/06	Fri 9/15/06	0	0
227		Heater	0%	226	5 days	2 days	Mon 9/18/06	Tue 9/19/06	0	0
228		Plate	0%	227	5 days	2 days	Wed 9/20/06	Thu 9/21/06	0	0
229		Rotary Valves	0%	228	9 days	4 days	Fri 9/22/06	Wed 9/27/06	0	0
230		Syringe and rotary valve	0%	229	1 day	1 day	Thu 9/28/06	Thu 9/28/06	0	0
231		Series Valves	0%	230	3 days	2 days	Fri 9/29/06	Mon 10/2/06	0	0
232		Camera	0%	231	4 days	2 days	Tue 10/3/06	Wed 10/4/06	0	0
233		Camera power supply	0%	232	2 days	1 day	Thu 10/5/06	Thu 10/5/06	0	0
234		Elevator	0%	233	3 days	2 days	Fri 10/6/06	Mon 10/9/06	0	0
235		Dwarf assembly	0%	234	5 days	2 days	Tue 10/10/06	Wed 10/11/06	0	0
236		Sleepy board mounting	0%	235	2 days	1 day	Thu 10/12/06	Thu 10/12/06	0	0
237		Manipulator Final	0%	236	5 days	2 days	Fri 10/13/06	Mon 10/16/06	0	0
238		Tube preparation and plumbing	0%	237	9 days	4 days	Tue 10/17/06	Fri 10/20/06	0	0
239		Jensen spit tubes	0%	238	1 day	1 day	Mon 10/23/06	Mon 10/23/06	0	0
240		Miscellaneous	0%	239	5 days	2 days	Tue 10/24/06	Wed 10/25/06	0	0
241		Subassemblies complete	0%	240	0 days	0 days	Wed 10/25/06	Wed 10/25/06	0	0
242		Final Assembly	0%	241	42 days	25 days	Thu 10/26/06	Wed 11/29/06	0	0
243		Mounting plate on holder	0%	239	4 days	2 days	Thu 10/26/06	Fri 10/27/06	0	0
244		heaters	0%	243	2 days	1 day	Mon 10/30/06	Mon 10/30/06	0	0
245		Elevator	0%	244	2 days	1 day	Tue 10/31/06	Tue 10/31/06	0	0
246		Clamps	0%	245	1 day	1 day	Wed 11/1/06	Wed 11/1/06	0	0
247		Syringe and Rotary Valve	0%	246	1 day	1 day	Thu 11/2/06	Thu 11/2/06	0	0
248		Rotary valves	0%	247	4 days	2 days	Fri 11/3/06	Mon 11/6/06	0	0
249		Series valves	0%	248	1 day	1 day	Tue 11/7/06	Tue 11/7/06	0	0
250		Plumbing initial	0%	249	4 days	2 days	Wed 11/8/06	Thu 11/9/06	0	0
251		Camera	0%	250	1 day	1 day	Fri 11/10/06	Fri 11/10/06	0	0
252		Manipulator	0%	251	1 day	1 day	Mon 11/13/06	Mon 11/13/06	0	0
253		Garage	0%	252	1 day	1 day	Tue 11/14/06	Tue 11/14/06	0	0
254		Dwarfs	0%	253	4 days	2 days	Wed 11/15/06	Thu 11/16/06	0	0
255		Sleepy board	0%	254	1 day	1 day	Fri 11/17/06	Fri 11/17/06	0	0
256		Wiring	0%	255	8 days	4 days	Mon 11/20/06	Thu 11/23/06	0	0

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257		Camera power supply	0%	256	2 days	1 day	Fri 11/24/06	Fri 11/24/06	0	0
258		Waste container	0%	257	1 day	1 day	Mon 11/27/06	Mon 11/27/06	0	0
259		Plumbing Final	0%	258	4 days	2 days	Tue 11/28/06	Wed 11/29/06	0	0
260		Final assembly complete	0%	259	0 days	0 days	Wed 11/29/06	Wed 11/29/06	0	0
261		Software	0%		5 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
262		Finalized CDs?	0%		5 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
263		Electrical	0%		6 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
264		Cabling	0%		2 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
265		Fabrication	0%		2 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
266		Existing board update	0%		2 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
267		Quality Assurance	0%		42 days	10 days	Wed 1/4/06	Tue 1/17/06	0	0
268		Alignment	0%		10 days	10 days	Wed 1/4/06	Tue 1/17/06	0	0
269		Reagent Storage	0%		1 day	1 day	Wed 1/4/06	Wed 1/4/06	0	0
270		Initial Integration & Test	0%		10 days	10 days	Wed 1/4/06	Tue 1/17/06	0	0
271		Cold water test	0%		8 days	8 days	Wed 1/4/06	Fri 1/13/06	0	0
272		Tank test	0%		8 days	8 days	Wed 1/4/06	Fri 1/13/06	0	0
273		Rework	0%		5 days	9 days	Wed 1/4/06	Mon 1/16/06	0	0
274		Support	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
275		Copy Resources	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	701312	701312
276		initial user workshop - prep for demo deployment	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
277		workshop Resources	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	900612	900612
278										
279		Deep water GiGI	1%		110 days	67 days?	Wed 1/4/06	Thu 4/6/06	0	0
355										
356		NASA ASTEP	0%		435 days	254 days?	Wed 1/4/06	Mon 12/25/06	0	0
357		Meeting review	0%		0 days	2 days?	Fri 2/24/06	Mon 2/27/06	0	0
358		Kick off meeting	0%	357	0 days	1 day?	Tue 2/28/06	Tue 2/28/06	0	0
359		System Specification	0%		6 days	85 days?	Wed 1/4/06	Tue 5/2/06	0	0
360		LLNL I.C.D. Specifications	0%		6 days	22 days	Mon 4/3/06	Tue 5/2/06	0	0
361		PCR Module Mechanical & Electrical	0%		1 day	22 days	Mon 4/3/06	Tue 5/2/06	0	0
362		Command Control Interface	0%		1 day	22 days	Mon 4/3/06	Tue 5/2/06	0	0
363		Thermal Interface	0%		1 day	22 days	Mon 4/3/06	Tue 5/2/06	0	0
364		Fluidic Interface	0%		1 day	22 days	Mon 4/3/06	Tue 5/2/06	0	0
365		Data Processing	0%		1 day	22 days	Mon 4/3/06	Tue 5/2/06	0	0
366		Generic Protocol	0%		1 day	22 days	Mon 4/3/06	Tue 5/2/06	0	0
367		MBARI Engineering I.C.D. Specifications	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0

ID		Task Name	% omplet	ieces	Work	Duration	Start	Finish	Labor	Material
368		Electrical	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
369		Software	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
370		Thermal Interface	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
371		Mechanical	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
372		Sci	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	703506	703506
373		MBARI Science Specs	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
374		Sampling spec.	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
375		Sample Inventory	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
376		Identify cruises of opportunity	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
377		Identify suite of contextual sensors	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
378		Develop detailed use case scenarios	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
379		Assay Development	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
380		SH Assay Development & Testing	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
381		PCR Assay Development & Testing	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
382		Probe validation and calibration	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
383		Identify possible positive control	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
384		Reagent stability test	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
385		Bench comparison w/ realistic sample volume	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
386		Run hybrid on bench, test with cold	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
387		Science Test	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
388		ESP lab test (existing unit)	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
389		ESP Lab test (ASTEP dedicated unit)	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
390		Presentation and publications	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
391										
392		DWSM 1G (1KM)	0%		199 days	254 days?	Wed 1/4/06	Mon 12/25/06	703506	703506
393		System	0%		11 days	78 days	Wed 1/4/06	Fri 4/21/06	0	0
394		System requires & concept doc.	0%		1 day	15 days	Mon 4/3/06	Fri 4/21/06	0	0
395		?????Test fixture development????	0%		10 days	20 days	Wed 1/4/06	Tue 1/31/06	0	0
396		Mechancial	0%		29 days	56 days	Mon 4/17/06	Mon 7/3/06	0	0
397		Pressure test of Deep water housing Port Huene	0%		5 days	7 days	Mon 4/17/06	Tue 4/25/06	0	0
398		Mechanical Assembly	0%	397	2 days	8 days	Wed 4/26/06	Fri 5/5/06	0	0
399		Final Assembly	0%	398	1 day	3 days	Mon 5/8/06	Wed 5/10/06	0	0
400		Modified bracket designed & fabricated	0%		5 days	21 days	Mon 4/17/06	Mon 5/15/06	0	0
401		Design toolsled interface	0%	400	10 days	20 days	Tue 5/16/06	Mon 6/12/06	0	0
402		Fabricate toolsled interface	0%	401	6 days	15 days	Tue 6/13/06	Mon 7/3/06	0	0
403		Electrical	0%		15 days	53 days	Mon 4/17/06	Wed 6/28/06	0	0

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404		Analog pressure to Elmo controller	0%		10 days	15 days	Mon 4/17/06	Fri 5/5/06	0	0
405		Connectors?	0%	404	1 day	3 days	Mon 5/8/06	Wed 5/10/06	0	0
406		Cabling spec & procure	0%	405	3 days	30 days	Thu 5/11/06	Wed 6/21/06	0	0
407		Cabling of pressure to Elmo	0%	406	1 day	5 days	Thu 6/22/06	Wed 6/28/06	0	0
408		Software	0%		76 days	141 days?	Mon 3/27/06	Mon 10/9/06	0	0
409		System Model Development	0%		10 days	20 days	Mon 4/17/06	Fri 5/12/06	0	0
410		Analysis & Design of Control Algorithm	0%	409	31 days	50 days	Mon 5/15/06	Fri 7/21/06	0	0
411		Software development	0%	410	15 days	30 days	Mon 7/24/06	Fri 9/1/06	0	0
412		Analysis at varying depths	0%	411	0 days	1 day?	Mon 9/4/06	Mon 9/4/06	0	0
413		Test & Integration	0%	412	10 days	20 days	Tue 9/5/06	Mon 10/2/06	0	0
414		Protocol development	0%	413	5 days	5 days	Tue 10/3/06	Mon 10/9/06	0	0
415		Protocols implementation	0%		5 days	10 days	Mon 3/27/06	Fri 4/7/06	0	0
416		Integration	0%	414	68 days	55 days?	Tue 10/10/06	Mon 12/25/06	0	0
417		Test Plan Doc.	0%		2 days	4 days	Tue 10/10/06	Fri 10/13/06	0	0
418		Manual Bench top test (straight pipe)	0%	417	4 days	8 days	Mon 10/16/06	Wed 10/25/06	0	0
419		Science protocol development	0%	418	5 days	15 days	Thu 10/26/06	Wed 11/15/06	0	0
420		Move onto PT. Lobos	0%	419	1 day	1 day	Thu 11/16/06	Thu 11/16/06	0	0
421		ROV Test (straight pipe)	0%	420	1 day	3 days	Fri 11/17/06	Tue 11/21/06	0	0
422		Bench Test using sampling protocol	0%	421	5 days	5 days	Wed 11/22/06	Tue 11/28/06	0	0
423		Response to test	0%	422	5 days	7 days	Wed 11/29/06	Thu 12/7/06	0	0
424		Bench test with ESP test fixture	0%	423	10 days	1 day?	Fri 12/8/06	Fri 12/8/06	0	0
425		ROV Test with test fixture?	0%	424	10 days	1 day?	Mon 12/11/06	Mon 12/11/06	0	0
426		Bench test with Instrument	0%	425	10 days	1 day?	Tue 12/12/06	Tue 12/12/06	0	0
427		ROV Test with ESP	0%	426	10 days	1 day?	Wed 12/13/06	Wed 12/13/06	0	0
428										
429			0%	427	5 days	8 days	Thu 12/14/06	Mon 12/25/06	0	0
430		Fluidic Interface to PCR module	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
431		System	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
432		Requirements Document	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
433		Redesign of Core	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
434		Assembly	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
435		Electrical	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
436		Design	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
437		Procurement	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
438		Fabrication	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
439		Testing	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0

ID		Task Name	% complete	leaves	Work	Duration	Start	Finish	Labor	Material
440		Mechanical	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
441		Design	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
442		Procurement	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
443		Fabrication	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
444		Testing	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
445		Software	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
446		Design	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
447		Procurement	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
448		Development	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
449		Testing	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
450		Integration & Testing	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
451		Software Control	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
452		Testing in House	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
453		Testing with PCR	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
454		Integration into Core	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
455		Testing System	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
456		ISUS context sensor incorp	0%		230 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
457		Sci	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	703506	703506
458		Sci Tech	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	703506	703506
459		EE	0%		2 days	1 day?	Wed 1/4/06	Wed 1/4/06	703506	703506
460		ME	0%		3 days	1 day?	Wed 1/4/06	Wed 1/4/06	703506	703506
461		SE	0%		10 days	1 day?	Wed 1/4/06	Wed 1/4/06	703506	703506
462		modify/fab DWSM	0%		55 days	1 day?	Wed 1/4/06	Wed 1/4/06	800237	0
470		Modify/fab 2G	0%		90 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
479		design/fab pressure housing	0%		40 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
487		design/fab benthic mooring structure	0%		30 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
499		Operations	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
507			0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
508		Moore Foundation	0%		151 days	522 days?	Wed 1/4/06	Thu 1/3/08	0	0
509		define functional requirements	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
510		Survey of PCR, microarrays, Capillary	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
511		Gather Zehr's requirements	0%		0 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
512		evaluate existing analytical modules - candidacy	0%		28 days	1 day?	Wed 1/4/06	Wed 1/4/06	0	0
517		downselect candidate modules - develop test plan	0%		11 days	1 day?	Wed 1/3/07	Wed 1/3/07	0	0
522		develop lab test fixture that incorps elements of ESP a	0%		112 days	1 day?	Thu 1/3/08	Thu 1/3/08	0	0

ID		Task Name	% complete	leaves	Work	12/4	12/18	1/1	1/15	1/29	2/12	2/26	3/12	3/26
1		GiGi core	14%		103.5 days									
2		Final instrument modifications	0%		0 days									
3														
4		Refit system valves to Cheminert valves	41%		18.5 days									
5	 	Order new valves	100%		0.5 days				Scott					
6		Split cost of valves	0%		0 days									
7		Valves arrive	0%		0 days									
8														
9		Valve bracket redesign	100%		4 days									
23		Valve placement in instrument	90%		0 days									
38		Protocol redevelopment	0%		10 days						Science Team			
39		Refit completion	0%		4 days									
41														
42		modify bulkhead valves - eliminate solenoid	0%		35 days									
58														
59		Software	0%		50 days									
64														
65		shutter on sample intake port (50m depth max)	0%		41 days									
81														
82		Software	0%		35 days									
85														
86		Finish surface surface water housing for GiGi	0%		3 days									
95														
96		Mooring 2 battery configuration	0%		0 days									
101														
102														
103														
104														
105														
106		Tank Deployment	0%	98	1 day									
107														
108														
109		Shallow water deployments	0%	106	60 days									
182														
183		Tech xfer	0%		309 days									
184		Build 3 copies using existing design and spec, based	0%		309 days									

ID		Task Name	% omplet	leces	Work	12/4	12/18	1/1	1/15	1/29	2/12	2/26	3/12	3/26
185		Pre-production	0%		120 days									
186		system	0%		0 days									
187		Investigate BC Tech subcontracts	0%		0 days									
188		Extending duration	0%		0 days									
189		Mechanical	0%		55 days									
190		Solid Works critical subassemblies	0%		25 days									
191		Bid subassemblies	0%	190	2 days									
192		Procure subassemblies	0%	191	1 day									
193		Solid Works complete model & print packag	0%	192	0 days									
194		Bid print package	0%	193	1 day									
195		Cost estimate of COTS parts + sparse	0%		5 days									
196		Order machined parts	0%	194	1 day									
197		Order COTS	0%	195	10 days									
198		Parts Inventory & Organization	0%	195	10 days									
199		Electrical	2%		25 days									
200		Investigate subcontracting cabling	0%		5 days									
201		Investigate subcontracting boards	0%		1 day									
202		Schematics Verified	0%		3 days									
203		Lab space & staging area	50%		2 days									
204		Cost Estimate	0%	202	1 day									
205		Order Parts	0%	204	3 days									
206		Part inventory & Organization	0%	202	5 days									
207		All EE Parts in House	0%		0 days									
208		Document Package	0%		5 days									
209		Software	0%		40 days									
210		Modularize scripting	0%		5 days									
211		document all software	0%	210	10 days									
212		software user manual	0%	211	15 days									
213		Increase duration to 1 month	0%		10 days									
214		Production	0%		147 days									
215		Documentation	0%		10 days									
216		Software user manual	0%		10 days									
217		Mechanical	0%		126 days									
218		All COTS parts in house	0%		0 days									
219		All Fabricated parts in house	0%		0 days									
220		Camera Jig	0%		3 days									

ID		Task Name	% complete	leces	Work	12/4	12/18	1/1	1/15	1/29	2/12	2/26	3/12	3/26
221		Subassembly	0%		81 days									
222		Carosel	0%		5 days									
223		Carosel mounting/top plate	0%	222	3 days									
224		Syringes	0%	223	4 days									
225		Manipulator Mechanical	0%	224	5 days									
226		Clamps	0%	225	5 days									
227		Heater	0%	226	5 days									
228		Plate	0%	227	5 days									
229		Rotary Valves	0%	228	9 days									
230		Syringe and rotary valve	0%	229	1 day									
231		Series Valves	0%	230	3 days									
232		Camera	0%	231	4 days									
233		Camera power supply	0%	232	2 days									
234		Elevator	0%	233	3 days									
235		Dwarf assembly	0%	234	5 days									
236		Sleepy board mounting	0%	235	2 days									
237		Manipulator Final	0%	236	5 days									
238		Tube preparation and plumbing	0%	237	9 days									
239		Jensen spit tubes	0%	238	1 day									
240		Miscellaneous	0%	239	5 days									
241		Subassemblies complete	0%	240	0 days									
242		Final Assembly	0%	241	42 days									
243		Mounting plate on holder	0%	239	4 days									
244		heaters	0%	243	2 days									
245		Elevator	0%	244	2 days									
246		Clamps	0%	245	1 day									
247		Syringe and Rotary Valve	0%	246	1 day									
248		Rotary valves	0%	247	4 days									
249		Series valves	0%	248	1 day									
250		Plumbing initial	0%	249	4 days									
251		Camera	0%	250	1 day									
252		Manipulator	0%	251	1 day									
253		Garage	0%	252	1 day									
254		Dwarfs	0%	253	4 days									
255		Sleepy board	0%	254	1 day									
256		Wiring	0%	255	8 days									

ID		Task Name	% omplet	leces	Work	12/4	12/18	1/1	1/15	1/29	2/12	2/26	3/12	3/26
257		Camera power supply	0%	256	2 days									
258		Waste container	0%	257	1 day									
259		Plumbing Final	0%	258	4 days									
260		Final assembly complete	0%	259	0 days									
261		Software	0%		5 days									
262		Finalized CDs?	0%		5 days									
263		Electrical	0%		6 days									
264		Cabling	0%		2 days									
265		Fabrication	0%		2 days									
266		Existing board update	0%		2 days									
267		Quality Assurance	0%		42 days									
268		Alignment	0%		10 days									
269		Reagent Storage	0%		1 day									
270		Initial Integration & Test	0%		10 days									
271		Cold water test	0%		8 days									
272		Tank test	0%		8 days									
273		Rework	0%		5 days									
274		Support	0%		0 days									
275		Copy Resources	0%		0 days									
276		initial user workshop - prep for demo deploymen	0%		0 days									
277		workshop Resources	0%		0 days									
278														
279		Deep water GiGI	1%		110 days									
355														
356		NASA ASTEP	0%		435 days									
357		Meeting review	0%		0 days									
358		Kick off meeting	0%	357	0 days									
359		System Specification	0%		6 days									
360		LLNL I.C.D. Specifications	0%		6 days									
361		PCR Module Mechanical & Electrical	0%		1 day									
362		Command Control Interface	0%		1 day									
363		Thermal Interface	0%		1 day									
364		Fluidic Interface	0%		1 day									
365		Data Processing	0%		1 day									
366		Generic Protocol	0%		1 day									
367		MBARI Engineering I.C.D. Specifications	0%		0 days									

ID		Task Name	% complete	leces	Work	12/4	12/18	1/1	1/15	1/29	2/12	2/26	3/12	3/26
368		Electrical	0%		0 days									
369		Software	0%		0 days									
370		Thermal Interface	0%		0 days									
371		Mechanical	0%		0 days									
372		Sci	0%		0 days									
373		MBARI Science Specs	0%		0 days									
374		Sampling spec.	0%		0 days									
375		Sample Inventory	0%		0 days									
376		Identify cruises of opportunity	0%		0 days									
377		Identify suite of contextual sensors	0%		0 days									
378		Develop detailed use case scenarios	0%		0 days									
379		Assay Development	0%		0 days									
380		SH Assay Development & Testing	0%		0 days									
381		PCR Assay Development & Testing	0%		0 days									
382		Probe validation and calibration	0%		0 days									
383		Identify possible positive control	0%		0 days									
384		Reagent stability test	0%		0 days									
385		Bench comparison w/ realistic sample volume	0%		0 days									
386		Run hybrid on bench, test with cold	0%		0 days									
387		Science Test	0%		0 days									
388		ESP lab test (existing unit)	0%		0 days									
389		ESP Lab test (ASTEP dedicated unit)	0%		0 days									
390		Presentation and publications	0%		0 days									
391														
392		DWSM 1G (1KM)	0%		199 days									
393		System	0%		11 days									
394		System requires & concept doc.	0%		1 day									
395		?????Test fixture development????	0%		10 days									
396		Mechanical	0%		29 days									
397		Pressure test of Deep water housing Port Huene	0%		5 days									
398		Mechanical Assembly	0%	397	2 days									
399		Final Assembly	0%	398	1 day									
400		Modified bracket designed & fabricated	0%		5 days									
401		Design toolsted interface	0%	400	10 days									
402		Fabricate toolsted interface	0%	401	6 days									
403		Electrical	0%		15 days									

ID		Task Name	% omplet	leces	Work	12/4	12/18	1/1	1/15	1/29	2/12	2/26	3/12	3/26
404		Analog pressure to Elmo controller	0%		10 days									
405		Connectors?	0%	404	1 day									
406		Cabling spec & procure	0%	405	3 days									
407		Cabling of pressure to Elmo	0%	406	1 day									
408		Software	0%		76 days									
409		System Model Development	0%		10 days									
410		Analysis & Design of Control Algorithm	0%	409	31 days									
411		Software development	0%	410	15 days									
412		Analysis at varying depths	0%	411	0 days									
413		Test & Integration	0%	412	10 days									
414		Protocol development	0%	413	5 days									
415		Protocols implementation	0%		5 days									
416		Integration	0%	414	68 days									
417		Test Plan Doc.	0%		2 days									
418		Manual Bench top test (straight pipe)	0%	417	4 days									
419		Science protocol development	0%	418	5 days									
420		Move onto PT. Lobos	0%	419	1 day									
421		ROV Test (straight pipe)	0%	420	1 day									
422		Bench Test using sampling protocol	0%	421	5 days									
423		Response to test	0%	422	5 days									
424		Bench test with ESP test fixture	0%	423	10 days									
425		ROV Test with test fixture?	0%	424	10 days									
426		Bench test with Instrument	0%	425	10 days									
427		ROV Test with ESP	0%	426	10 days									
428														
429			0%	427	5 days									
430		Fluidic Interface to PCR module	0%		0 days									
431		System	0%		0 days									
432		Requirements Document	0%		0 days									
433		Redesign of Core	0%		0 days									
434		Assembly	0%		0 days									
435		Electrical	0%		0 days									
436		Design	0%		0 days									
437		Procurement	0%		0 days									
438		Fabrication	0%		0 days									
439		Testing	0%		0 days									

ID		Task Name	% omplet	leces	Work	12/4	12/18	1/1	1/15	1/29	2/12	2/26	3/12	3/26
440		Mechanical	0%		0 days									
441		Design	0%		0 days									
442		Procurement	0%		0 days									
443		Fabrication	0%		0 days									
444		Testing	0%		0 days									
445		Software	0%		0 days									
446		Design	0%		0 days									
447		Procurement	0%		0 days									
448		Development	0%		0 days									
449		Testing	0%		0 days									
450		Integration & Testing	0%		0 days									
451		Software Control	0%		0 days									
452		Testing in House	0%		0 days									
453		Testing with PCR	0%		0 days									
454		Integration into Core	0%		0 days									
455		Testing System	0%		0 days									
456		ISUS context sensor incorp	0%		230 days									
457		Sci	0%		0 days									
458		Sci Tech	0%		0 days									
459		EE	0%		2 days									
460		ME	0%		3 days									
461		SE	0%		10 days									
462		modify/fab DWSM	0%		55 days									
470		Modify/fab 2G	0%		90 days									
479		design/fab pressure housing	0%		40 days									
487		design/fab benthic mooring structure	0%		30 days									
499		Operations	0%		0 days									
507			0%		0 days									
508		Moore Foundation	0%		151 days									
509		define functional requirements	0%		0 days									
510		Survey of PCR, microarrays, Capillary	0%		0 days									
511		Gather Zehr's requirements	0%		0 days									
512		evaluate existing analytical modules - candidacy	0%		28 days									
517		downselect candidate modules - develop test plan	0%		11 days									
522		develop lab test fixture that incorps elements of ESP a	0%		112 days									

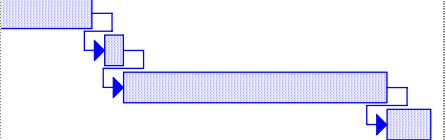
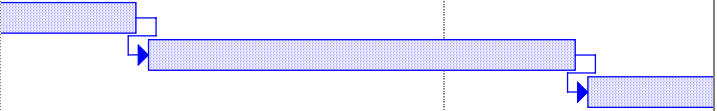
ID		Task Name	% complete	leces	Work	July 1								
						4/9	4/23	5/7	5/21	6/4	6/18	7/2	7/16	7/30
1		GiGi core	14%		103.5 days									
2		Final instrument modifications	0%		0 days									
3														
4		Refit system valves to Cheminert valves	41%		18.5 days									
5		Order new valves	100%		0.5 days									
6		Split cost of valves	0%		0 days									
7		Valves arrive	0%		0 days									
8														
9		Valve bracket redesign	100%		4 days									
23		Valve placement in instrument	90%		0 days									
38		Protocol redevelopment	0%		10 days									
39		Refit completion	0%		4 days									
41														
42		modify bulkhead valves - eliminate solenoid	0%		35 days									
58														
59		Software	0%		50 days									
64														
65		shutter on sample intake port (50m depth max)	0%		41 days									
81														
82		Software	0%		35 days									
85														
86		Finish surface surface water housing for GiGi	0%		3 days									
95														
96		Mooring 2 battery configuration	0%		0 days									
101														
102														
103														
104														
105														
106		Tank Deployment	0%	98	1 day									
107														
108														
109		Shallow water deployments	0%	106	60 days									
182														
183		Tech xfer	0%		309 days									
184		Build 3 copies using exisiting design and spec, based	0%		309 days									

ID		Task Name	% omplet	leces	Work							July 1			
						4/9	4/23	5/7	5/21	6/4	6/18	7/2	7/16	7/30	
185		Pre-production	0%		120 days										
186		system	0%		0 days										
187		Investigate BC Tech subcontracts	0%		0 days										
188		Extending duration	0%		0 days										
189		Mechanical	0%		55 days										
190		Solid Works critical subassemblies	0%		25 days										
191		Bid subassemblies	0%	190	2 days										
192		Procure subassemblies	0%	191	1 day										
193		Solid Works complete model & print packag	0%	192	0 days										
194		Bid print package	0%	193	1 day										
195		Cost estimate of COTS parts + sparse	0%		5 days										
196		Order machined parts	0%	194	1 day										
197		Order COTS	0%	195	10 days										
198		Parts Inventory & Organization	0%	195	10 days										
199		Electrical	2%		25 days										
200		Investigate subcontracting cabling	0%		5 days										
201		Investigate subcontracting boards	0%		1 day										
202		Schematics Verified	0%		3 days										
203		Lab space & staging area	50%		2 days										
204		Cost Estimate	0%	202	1 day										
205		Order Parts	0%	204	3 days										
206		Part inventory & Organization	0%	202	5 days										
207		All EE Parts in House	0%		0 days										
208		Document Package	0%		5 days										
209		Software	0%		40 days										
210		Modularize scripting	0%		5 days										
211		document all software	0%	210	10 days										
212		software user manual	0%	211	15 days										
213		Increase duration to 1 month	0%		10 days										
214		Production	0%		147 days										
215		Documentation	0%		10 days										
216		Software user manual	0%		10 days										
217		Mechanical	0%		126 days										
218		All COTS parts in house	0%		0 days										
219		All Fabricated parts in house	0%		0 days										
220		Camera Jig	0%		3 days										

ID		Task Name	% omplet	leces	Work	July 1								
						4/9	4/23	5/7	5/21	6/4	6/18	7/2	7/16	7/30
221		Subassembly	0%		81 days									
222		Carosel	0%		5 days									
223		Carosel mounting/top plate	0%	222	3 days									
224		Syringes	0%	223	4 days									
225		Manipulator Mechanical	0%	224	5 days									
226		Clamps	0%	225	5 days									
227		Heater	0%	226	5 days									
228		Plate	0%	227	5 days									
229		Rotary Valves	0%	228	9 days									
230		Syringe and rotary valve	0%	229	1 day									
231		Series Valves	0%	230	3 days									
232		Camera	0%	231	4 days									
233		Camera power supply	0%	232	2 days									
234		Elevator	0%	233	3 days									
235		Dwarf assembly	0%	234	5 days									
236		Sleepy board mounting	0%	235	2 days									
237		Manipulator Final	0%	236	5 days									
238		Tube preparation and plumbing	0%	237	9 days									
239		Jensen spit tubes	0%	238	1 day									
240		Miscellaneous	0%	239	5 days									
241		Subassemblies complete	0%	240	0 days									
242		Final Assembly	0%	241	42 days									
243		Mounting plate on holder	0%	239	4 days									
244		heaters	0%	243	2 days									
245		Elevator	0%	244	2 days									
246		Clamps	0%	245	1 day									
247		Syringe and Rotary Valve	0%	246	1 day									
248		Rotary valves	0%	247	4 days									
249		Series valves	0%	248	1 day									
250		Plumbing initial	0%	249	4 days									
251		Camera	0%	250	1 day									
252		Manipulator	0%	251	1 day									
253		Garage	0%	252	1 day									
254		Dwarfs	0%	253	4 days									
255		Sleepy board	0%	254	1 day									
256		Wiring	0%	255	8 days									

ID		Task Name	% complete	leces	Work	July 1								
						4/9	4/23	5/7	5/21	6/4	6/18	7/2	7/16	7/30
257		Camera power supply	0%	256	2 days									
258		Waste container	0%	257	1 day									
259		Plumbing Final	0%	258	4 days									
260		Final assembly complete	0%	259	0 days									
261		Software	0%		5 days									
262		Finalized CDs?	0%		5 days									
263		Electrical	0%		6 days									
264		Cabling	0%		2 days									
265		Fabrication	0%		2 days									
266		Existing board update	0%		2 days									
267		Quality Assurance	0%		42 days									
268		Alignment	0%		10 days									
269		Reagent Storage	0%		1 day									
270		Initial Integration & Test	0%		10 days									
271		Cold water test	0%		8 days									
272		Tank test	0%		8 days									
273		Rework	0%		5 days									
274		Support	0%		0 days									
275		Copy Resources	0%		0 days									
276		initial user workshop - prep for demo deployment	0%		0 days									
277		workshop Resources	0%		0 days									
278														
279		Deep water GiGI	1%		110 days									
355														
356		NASA ASTEP	0%		435 days									
357		Meeting review	0%		0 days									
358		Kick off meeting	0%	357	0 days									
359		System Specification	0%		6 days									
360		LLNL I.C.D. Specifications	0%		6 days									
361		PCR Module Mechanical & Electrical	0%		1 day									
362		Command Control Interface	0%		1 day									
363		Thermal Interface	0%		1 day									
364		Fluidic Interface	0%		1 day									
365		Data Processing	0%		1 day									
366		Generic Protocol	0%		1 day									
367		MBARI Engineering I.C.D. Specifications	0%		0 days									

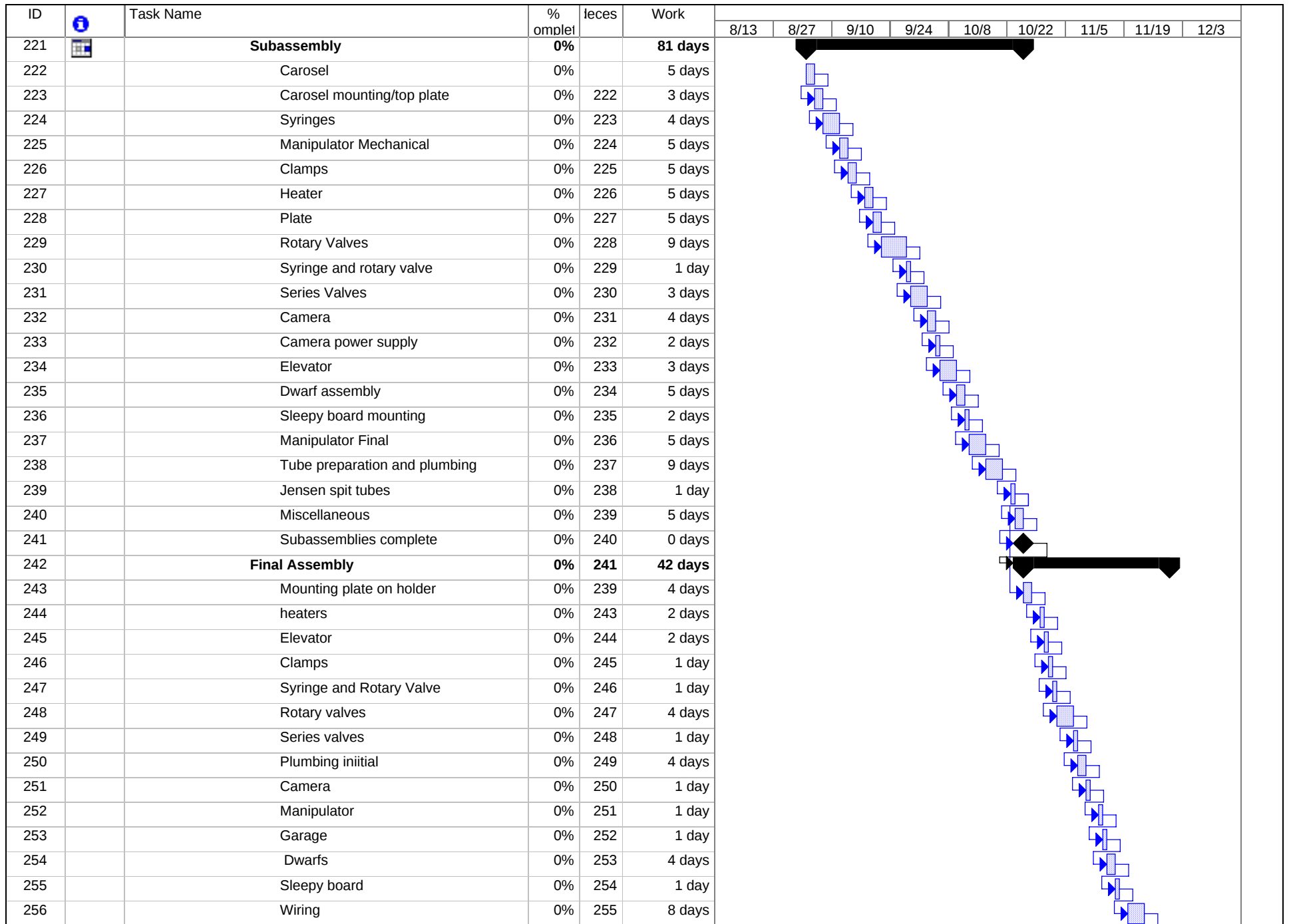
ID		Task Name	% complete	leces	Work	July 1								
						4/9	4/23	5/7	5/21	6/4	6/18	7/2	7/16	7/30
368		Electrical	0%		0 days									
369		Software	0%		0 days									
370		Thermal Interface	0%		0 days									
371		Mechanical	0%		0 days									
372		Sci	0%		0 days									
373		MBARI Science Specs	0%		0 days									
374		Sampling spec.	0%		0 days									
375		Sample Inventory	0%		0 days									
376		Identify cruises of opportunity	0%		0 days									
377		Identify suite of contextual sensors	0%		0 days									
378		Develop detailed use case scenarios	0%		0 days									
379		Assay Development	0%		0 days									
380		SH Assay Development & Testing	0%		0 days									
381		PCR Assay Development & Testing	0%		0 days									
382		Probe validation and calibration	0%		0 days									
383		Identify possible positive control	0%		0 days									
384		Reagent stability test	0%		0 days									
385		Bench comparison w/ realistic sample volume	0%		0 days									
386		Run hybrid on bench, test with cold	0%		0 days									
387		Science Test	0%		0 days									
388		ESP lab test (existing unit)	0%		0 days									
389		ESP Lab test (ASTEP dedicated unit)	0%		0 days									
390		Presentation and publications	0%		0 days									
391														
392		DWSM 1G (1KM)	0%		199 days									
393		System	0%		11 days									
394		System requires & concept doc.	0%		1 day									
395		?????Test fixture development????	0%		10 days									
396		Mechanical	0%		29 days									
397		Pressure test of Deep water housing Port Huene	0%		5 days									
398		Mechanical Assembly	0%	397	2 days									
399		Final Assembly	0%	398	1 day									
400		Modified bracket designed & fabricated	0%		5 days									
401		Design toolsted interface	0%	400	10 days									
402		Fabricate toolsted interface	0%	401	6 days									
403		Electrical	0%		15 days									

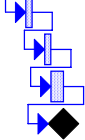
ID		Task Name	% complete	Issues	Work	July 1									
						4/9	4/23	5/7	5/21	6/4	6/18	7/2	7/16	7/30	
404		Analog pressure to Elmo controller	0%		10 days										
405		Connectors?	0%	404	1 day										
406		Cabling spec & procure	0%	405	3 days										
407		Cabling of pressure to Elmo	0%	406	1 day										
408		Software	0%		76 days										
409		System Model Development	0%		10 days										
410		Analysis & Design of Control Algorithm	0%	409	31 days										
411		Software development	0%	410	15 days										
412		Analysis at varying depths	0%	411	0 days										
413		Test & Integration	0%	412	10 days										
414		Protocol development	0%	413	5 days										
415		Protocols implementation	0%		5 days										
416		Integration	0%	414	68 days										
417		Test Plan Doc.	0%		2 days										
418		Manual Bench top test (straight pipe)	0%	417	4 days										
419		Science protocol development	0%	418	5 days										
420		Move onto PT. Lobos	0%	419	1 day										
421		ROV Test (straight pipe)	0%	420	1 day										
422		Bench Test using sampling protocol	0%	421	5 days										
423		Response to test	0%	422	5 days										
424		Bench test with ESP test fixture	0%	423	10 days										
425		ROV Test with test fixture?	0%	424	10 days										
426		Bench test with Instrument	0%	425	10 days										
427		ROV Test with ESP	0%	426	10 days										
428															
429			0%	427	5 days										
430		Fluidic Interface to PCR module	0%		0 days										
431		System	0%		0 days										
432		Requirements Document	0%		0 days										
433		Redesign of Core	0%		0 days										
434		Assembly	0%		0 days										
435		Electrical	0%		0 days										
436		Design	0%		0 days										
437		Procurement	0%		0 days										
438		Fabrication	0%		0 days										
439		Testing	0%		0 days										

ID		Task Name	% omplet	ieces	Work							July 1		
						4/9	4/23	5/7	5/21	6/4	6/18	7/2	7/16	7/30
440		Mechanical	0%		0 days									
441		Design	0%		0 days									
442		Procurement	0%		0 days									
443		Fabrication	0%		0 days									
444		Testing	0%		0 days									
445		Software	0%		0 days									
446		Design	0%		0 days									
447		Procurement	0%		0 days									
448		Development	0%		0 days									
449		Testing	0%		0 days									
450		Integration & Testing	0%		0 days									
451		Software Control	0%		0 days									
452		Testing in House	0%		0 days									
453		Testing with PCR	0%		0 days									
454		Integration into Core	0%		0 days									
455		Testing System	0%		0 days									
456		ISUS context sensor incorp	0%		230 days									
457		Sci	0%		0 days									
458		Sci Tech	0%		0 days									
459		EE	0%		2 days									
460		ME	0%		3 days									
461		SE	0%		10 days									
462		modify/fab DWSM	0%		55 days									
470		Modify/fab 2G	0%		90 days									
479		design/fab pressure housing	0%		40 days									
487		design/fab benthic mooring structure	0%		30 days									
499		Operations	0%		0 days									
507			0%		0 days									
508		Moore Foundation	0%		151 days									
509		define functional requirements	0%		0 days									
510		Survey of PCR, microarrays, Capillary	0%		0 days									
511		Gather Zehr's requirements	0%		0 days									
512		evaluate existing analytical modules - candidacy	0%		28 days									
517		downselect candidate modules - develop test plan	0%		11 days									
522		develop lab test fixture that incorps elements of ESP a	0%		112 days									

ID		Task Name	% complete	leces	Work	8/13	8/27	9/10	9/24	10/8	10/22	11/5	11/19	12/3
1		GiGi core	14%		103.5 days									
2		Final instrument modifications	0%		0 days									
3														
4		Refit system valves to Cheminert valves	41%		18.5 days									
5	 	Order new valves	100%		0.5 days									
6		Split cost of valves	0%		0 days									
7		Valves arrive	0%		0 days									
8														
9		Valve bracket redesign	100%		4 days									
23		Valve placement in instrument	90%		0 days									
38		Protocol redevelopment	0%		10 days									
39		Refit completion	0%		4 days									
41														
42		modify bulkhead valves - eliminate solenoid	0%		35 days									
58														
59		Software	0%		50 days									
64														
65		shutter on sample intake port (50m depth max)	0%		41 days									
81														
82		Software	0%		35 days									
85														
86		Finish surface surface water housing for GiGi	0%		3 days									
95														
96		Mooring 2 battery configuration	0%		0 days									
101														
102														
103														
104														
105														
106		Tank Deployment	0%	98	1 day									
107														
108														
109		Shallow water deployments	0%	106	60 days									
182														
183		Tech xfer	0%		309 days									
184		Build 3 copies using exisiting design and spec, based	0%		309 days									

ID		Task Name	% omple	leces	Work	8/13	8/27	9/10	9/24	10/8	10/22	11/5	11/19	12/3
185		Pre-production	0%		120 days									
186		system	0%		0 days									
187		Investigate BC Tech subcontracts	0%		0 days									
188		Extending duration	0%		0 days									
189		Mechanical	0%		55 days									
190		Solid Works critical subassemblies	0%		25 days									
191		Bid subassemblies	0%	190	2 days									
192		Procure subassemblies	0%	191	1 day									
193		Solid Works complete model & print packag	0%	192	0 days									
194		Bid print package	0%	193	1 day									
195		Cost estimate of COTS parts + sparse	0%		5 days									
196		Order machined parts	0%	194	1 day									
197		Order COTS	0%	195	10 days									
198		Parts Inventory & Organization	0%	195	10 days									
199		Electrical	2%		25 days									
200		Investigate subcontracting cabling	0%		5 days									
201		Investigate subcontracting boards	0%		1 day									
202		Schematics Verified	0%		3 days									
203		Lab space & staging area	50%		2 days									
204		Cost Estimate	0%	202	1 day									
205		Order Parts	0%	204	3 days									
206		Part inventory & Organization	0%	202	5 days									
207		All EE Parts in House	0%		0 days									
208		Document Package	0%		5 days									
209		Software	0%		40 days									
210		Modularize scripting	0%		5 days									
211		document all software	0%	210	10 days									
212		software user manual	0%	211	15 days									
213		Increase duration to 1 month	0%		10 days									
214		Production	0%		147 days									
215		Documentation	0%		10 days									
216		Software user manual	0%		10 days									
217		Mechanical	0%		126 days									
218		All COTS parts in house	0%		0 days									
219		All Fabricated parts in house	0%		0 days									
220		Camera Jig	0%		3 days									



ID		Task Name	% omple	leces	Work								
						8/13	8/27	9/10	9/24	10/8	10/22	11/5	11/19
257		Camera power supply	0%	256	2 days								
258		Waste container	0%	257	1 day								
259		Plumbing Final	0%	258	4 days								
260		Final assembly complete	0%	259	0 days								
261		Software	0%		5 days								
262		Finalized CDs?	0%		5 days								
263		Electrical	0%		6 days								
264		Cabling	0%		2 days								
265		Fabrication	0%		2 days								
266		Existing board update	0%		2 days								
267		Quality Assurance	0%		42 days								
268		Alignment	0%		10 days								
269		Reagent Storage	0%		1 day								
270		Initial Integration & Test	0%		10 days								
271		Cold water test	0%		8 days								
272		Tank test	0%		8 days								
273		Rework	0%		5 days								
274		Support	0%		0 days								
275		Copy Resources	0%		0 days								
276		initial user workshop - prep for demo deployment	0%		0 days								
277		workshop Resources	0%		0 days								
278													
279		Deep water GiGI	1%		110 days								
355													
356		NASA ASTEP	0%		435 days								
357		Meeting review	0%		0 days								
358		Kick off meeting	0%	357	0 days								
359		System Specification	0%		6 days								
360		LLNL I.C.D. Specifications	0%		6 days								
361		PCR Module Mechanical & Electrical	0%		1 day								
362		Command Control Interface	0%		1 day								
363		Thermal Interface	0%		1 day								
364		Fluidic Interface	0%		1 day								
365		Data Processing	0%		1 day								
366		Generic Protocol	0%		1 day								
367		MBARI Engineering I.C.D. Specifications	0%		0 days								

ID		Task Name	% complete	leces	Work	8/13	8/27	9/10	9/24	10/8	10/22	11/5	11/19	12/3
368		Electrical	0%		0 days									
369		Software	0%		0 days									
370		Thermal Interface	0%		0 days									
371		Mechanical	0%		0 days									
372		Sci	0%		0 days									
373		MBARI Science Specs	0%		0 days									
374		Sampling spec.	0%		0 days									
375		Sample Inventory	0%		0 days									
376		Identify cruises of opportunity	0%		0 days									
377		Identify suite of contextual sensors	0%		0 days									
378		Develop detailed use case scenarios	0%		0 days									
379		Assay Development	0%		0 days									
380		SH Assay Development & Testing	0%		0 days									
381		PCR Assay Development & Testing	0%		0 days									
382		Probe validation and calibration	0%		0 days									
383		Identify possible positive control	0%		0 days									
384		Reagent stability test	0%		0 days									
385		Bench comparison w/ realistic sample volume	0%		0 days									
386		Run hybrid on bench, test with cold	0%		0 days									
387		Science Test	0%		0 days									
388		ESP lab test (existing unit)	0%		0 days									
389		ESP Lab test (ASTEP dedicated unit)	0%		0 days									
390		Presentation and publications	0%		0 days									
391														
392		DWSM 1G (1KM)	0%		199 days									
393		System	0%		11 days									
394		System requires & concept doc.	0%		1 day									
395		?????Test fixture development????	0%		10 days									
396		Mechanical	0%		29 days									
397		Pressure test of Deep water housing Port Huene	0%		5 days									
398		Mechanical Assembly	0%	397	2 days									
399		Final Assembly	0%	398	1 day									
400		Modified bracket designed & fabricated	0%		5 days									
401		Design toolsled interface	0%	400	10 days									
402		Fabricate toolsled interface	0%	401	6 days									
403		Electrical	0%		15 days									

ID		Task Name	% complete	leces	Work	8/13	8/27	9/10	9/24	10/8	10/22	11/5	11/19	12/3
404		Analog pressure to Elmo controller	0%		10 days									
405		Connectors?	0%	404	1 day									
406		Cabling spec & procure	0%	405	3 days									
407		Cabling of pressure to Elmo	0%	406	1 day									
408		Software	0%		76 days									
409		System Model Development	0%		10 days									
410		Analysis & Design of Control Algorithm	0%	409	31 days									
411		Software development	0%	410	15 days									
412		Analysis at varying depths	0%	411	0 days									
413		Test & Integration	0%	412	10 days									
414		Protocol development	0%	413	5 days									
415		Protocols implementation	0%		5 days									
416		Integration	0%	414	68 days									
417		Test Plan Doc.	0%		2 days									
418		Manual Bench top test (straight pipe)	0%	417	4 days									
419		Science protocol development	0%	418	5 days									
420		Move onto PT. Lobos	0%	419	1 day									
421		ROV Test (straight pipe)	0%	420	1 day									
422		Bench Test using sampling protocol	0%	421	5 days									
423		Response to test	0%	422	5 days									
424		Bench test with ESP test fixture	0%	423	10 days									
425		ROV Test with test fixture?	0%	424	10 days									
426		Bench test with Instrument	0%	425	10 days									
427		ROV Test with ESP	0%	426	10 days									
428														
429			0%	427	5 days									
430		Fluidic Interface to PCR module	0%		0 days									
431		System	0%		0 days									
432		Requirements Document	0%		0 days									
433		Redesign of Core	0%		0 days									
434		Assembly	0%		0 days									
435		Electrical	0%		0 days									
436		Design	0%		0 days									
437		Procurement	0%		0 days									
438		Fabrication	0%		0 days									
439		Testing	0%		0 days									

ID		Task Name	% omplet	ieces	Work									
						8/13	8/27	9/10	9/24	10/8	10/22	11/5	11/19	12/3
440		Mechanical	0%		0 days									
441		Design	0%		0 days									
442		Procurement	0%		0 days									
443		Fabrication	0%		0 days									
444		Testing	0%		0 days									
445		Software	0%		0 days									
446		Design	0%		0 days									
447		Procurement	0%		0 days									
448		Development	0%		0 days									
449		Testing	0%		0 days									
450		Integration & Testing	0%		0 days									
451		Software Control	0%		0 days									
452		Testing in House	0%		0 days									
453		Testing with PCR	0%		0 days									
454		Integration into Core	0%		0 days									
455		Testing System	0%		0 days									
456		ISUS context sensor incorp	0%		230 days									
457		Sci	0%		0 days									
458		Sci Tech	0%		0 days									
459		EE	0%		2 days									
460		ME	0%		3 days									
461		SE	0%		10 days									
462		modify/fab DWSM	0%		55 days									
470		Modify/fab 2G	0%		90 days									
479		design/fab pressure housing	0%		40 days									
487		design/fab benthic mooring structure	0%		30 days									
499		Operations	0%		0 days									
507			0%		0 days									
508		Moore Foundation	0%		151 days									
509		define functional requirements	0%		0 days									
510		Survey of PCR, microarrays, Capillary	0%		0 days									
511		Gather Zehr's requirements	0%		0 days									
512		evaluate existing analytical modules - candidacy	0%		28 days									
517		downselect candidate modules - develop test plan	0%		11 days									
522		develop lab test fixture that incorps elements of ESP a	0%		112 days									

Fri 4/21/06

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ID		Task Name	% complete	leces	Work	12/17	12/31	1/14	1/28	2/11	2/25	3/11	3/25	4/8
1		GiGi core	14%		103.5 days									
2		Final instrument modifications	0%		0 days									
3														
4		Refit system valves to Cheminert valves	41%		18.5 days									
5		Order new valves	100%		0.5 days									
6		Split cost of valves	0%		0 days									
7		Valves arrive	0%		0 days									
8														
9		Valve bracket redesign	100%		4 days									
23		Valve placement in instrument	90%		0 days									
38		Protocol redevelopment	0%		10 days									
39		Refit completion	0%		4 days									
41														
42		modify bulkhead valves - eliminate solenoid	0%		35 days									
58														
59		Software	0%		50 days									
64														
65		shutter on sample intake port (50m depth max)	0%		41 days									
81														
82		Software	0%		35 days									
85														
86		Finish surface surface water housing for GiGi	0%		3 days									
95														
96		Mooring 2 battery configuration	0%		0 days									
101														
102														
103														
104														
105														
106		Tank Deployment	0%	98	1 day									
107														
108														
109		Shallow water deployments	0%	106	60 days									
182														
183		Tech xfer	0%		309 days									
184		Build 3 copies using existing design and spec, based	0%		309 days									

ID		Task Name	% complete	leces	Work	12/17	12/31	1/14	1/28	2/11	2/25	3/11	3/25	4/8
185		Pre-production	0%		120 days									
186		system	0%		0 days									
187		Investigate BC Tech subcontracts	0%		0 days									
188		Extending duration	0%		0 days									
189		Mechanical	0%		55 days									
190		Solid Works critical subassemblies	0%		25 days									
191		Bid subassemblies	0%	190	2 days									
192		Procure subassemblies	0%	191	1 day									
193		Solid Works complete model & print packag	0%	192	0 days									
194		Bid print package	0%	193	1 day									
195		Cost estimate of COTS parts + sparse	0%		5 days									
196		Order machined parts	0%	194	1 day									
197		Order COTS	0%	195	10 days									
198		Parts Inventory & Organization	0%	195	10 days									
199		Electrical	2%		25 days									
200		Investigate subcontracting cabling	0%		5 days									
201		Investigate subcontracting boards	0%		1 day									
202		Schematics Verified	0%		3 days									
203		Lab space & staging area	50%		2 days									
204		Cost Estimate	0%	202	1 day									
205		Order Parts	0%	204	3 days									
206		Part inventory & Organization	0%	202	5 days									
207		All EE Parts in House	0%		0 days									
208		Document Package	0%		5 days									
209		Software	0%		40 days									
210		Modularize scripting	0%		5 days									
211		document all software	0%	210	10 days									
212		software user manual	0%	211	15 days									
213		Increase duration to 1 month	0%		10 days									
214		Production	0%		147 days									
215		Documentation	0%		10 days									
216		Software user manual	0%		10 days									
217		Mechanical	0%		126 days									
218		All COTS parts in house	0%		0 days									
219		All Fabricated parts in house	0%		0 days									
220		Camera Jig	0%		3 days									

ID		Task Name	% omplet	leces	Work	12/17	12/31	1/14	1/28	2/11	2/25	3/11	3/25	4/8
221		Subassembly	0%		81 days									
222		Carosel	0%		5 days									
223		Carosel mounting/top plate	0%	222	3 days									
224		Syringes	0%	223	4 days									
225		Manipulator Mechanical	0%	224	5 days									
226		Clamps	0%	225	5 days									
227		Heater	0%	226	5 days									
228		Plate	0%	227	5 days									
229		Rotary Valves	0%	228	9 days									
230		Syringe and rotary valve	0%	229	1 day									
231		Series Valves	0%	230	3 days									
232		Camera	0%	231	4 days									
233		Camera power supply	0%	232	2 days									
234		Elevator	0%	233	3 days									
235		Dwarf assembly	0%	234	5 days									
236		Sleepy board mounting	0%	235	2 days									
237		Manipulator Final	0%	236	5 days									
238		Tube preparation and plumbing	0%	237	9 days									
239		Jensen spit tubes	0%	238	1 day									
240		Miscellaneous	0%	239	5 days									
241		Subassemblies complete	0%	240	0 days									
242		Final Assembly	0%	241	42 days									
243		Mounting plate on holder	0%	239	4 days									
244		heaters	0%	243	2 days									
245		Elevator	0%	244	2 days									
246		Clamps	0%	245	1 day									
247		Syringe and Rotary Valve	0%	246	1 day									
248		Rotary valves	0%	247	4 days									
249		Series valves	0%	248	1 day									
250		Plumbing initial	0%	249	4 days									
251		Camera	0%	250	1 day									
252		Manipulator	0%	251	1 day									
253		Garage	0%	252	1 day									
254		Dwarfs	0%	253	4 days									
255		Sleepy board	0%	254	1 day									
256		Wiring	0%	255	8 days									

ID		Task Name	% complete	leces	Work	12/17	12/31	1/14	1/28	2/11	2/25	3/11	3/25	4/8
257		Camera power supply	0%	256	2 days									
258		Waste container	0%	257	1 day									
259		Plumbing Final	0%	258	4 days									
260		Final assembly complete	0%	259	0 days									
261		Software	0%		5 days									
262		Finalized CDs?	0%		5 days									
263		Electrical	0%		6 days									
264		Cabling	0%		2 days									
265		Fabrication	0%		2 days									
266		Existing board update	0%		2 days									
267		Quality Assurance	0%		42 days									
268		Alignment	0%		10 days									
269		Reagent Storage	0%		1 day									
270		Initial Integration & Test	0%		10 days									
271		Cold water test	0%		8 days									
272		Tank test	0%		8 days									
273		Rework	0%		5 days									
274		Support	0%		0 days									
275		Copy Resources	0%		0 days									
276		initial user workshop - prep for demo deployment	0%		0 days									
277		workshop Resources	0%		0 days									
278														
279		Deep water GiGI	1%		110 days									
355														
356		NASA ASTEP	0%		435 days									
357		Meeting review	0%		0 days									
358		Kick off meeting	0%	357	0 days									
359		System Specification	0%		6 days									
360		LLNL I.C.D. Specifications	0%		6 days									
361		PCR Module Mechanical & Electrical	0%		1 day									
362		Command Control Interface	0%		1 day									
363		Thermal Interface	0%		1 day									
364		Fluidic Interface	0%		1 day									
365		Data Processing	0%		1 day									
366		Generic Protocol	0%		1 day									
367		MBARI Engineering I.C.D. Specifications	0%		0 days									

ID		Task Name	% omplet	leces	Work	12/17	12/31	1/14	1/28	2/11	2/25	3/11	3/25	4/8
368		Electrical	0%		0 days									
369		Software	0%		0 days									
370		Thermal Interface	0%		0 days									
371		Mechanical	0%		0 days									
372		Sci	0%		0 days									
373		MBARI Science Specs	0%		0 days									
374		Sampling spec.	0%		0 days									
375		Sample Inventory	0%		0 days									
376		Identify cruises of opportunity	0%		0 days									
377		Identify suite of contextual sensors	0%		0 days									
378		Develop detailed use case scenarios	0%		0 days									
379		Assay Development	0%		0 days									
380		SH Assay Development & Testing	0%		0 days									
381		PCR Assay Development & Testing	0%		0 days									
382		Probe validation and calibration	0%		0 days									
383		Identify possible positive control	0%		0 days									
384		Reagent stability test	0%		0 days									
385		Bench comparison w/ realistic sample volume	0%		0 days									
386		Run hybrid on bench, test with cold	0%		0 days									
387		Science Test	0%		0 days									
388		ESP lab test (existing unit)	0%		0 days									
389		ESP Lab test (ASTEP dedicated unit)	0%		0 days									
390		Presentation and publications	0%		0 days									
391														
392		DWSM 1G (1KM)	0%		199 days									
393		System	0%		11 days									
394		System requires & concept doc.	0%		1 day									
395		?????Test fixture development????	0%		10 days									
396		Mechancial	0%		29 days									
397		Pressure test of Deep water housing Port Huene	0%		5 days									
398		Mechanical Assembly	0%	397	2 days									
399		Final Assembly	0%	398	1 day									
400		Modified bracket designed & fabricated	0%		5 days									
401		Design toolsled interface	0%	400	10 days									
402		Fabricate toolsled interface	0%	401	6 days									
403		Electrical	0%		15 days									

ID		Task Name	% complete	Issues	Work	12/17	12/31	1/14	1/28	2/11	2/25	3/11	3/25	4/8
404		Analog pressure to Elmo controller	0%		10 days									
405		Connectors?	0%	404	1 day									
406		Cabling spec & procure	0%	405	3 days									
407		Cabling of pressure to Elmo	0%	406	1 day									
408		Software	0%		76 days									
409		System Model Development	0%		10 days									
410		Analysis & Design of Control Algorithm	0%	409	31 days									
411		Software development	0%	410	15 days									
412		Analysis at varying depths	0%	411	0 days									
413		Test & Integration	0%	412	10 days									
414		Protocol development	0%	413	5 days									
415		Protocols implementation	0%		5 days									
416		Integration	0%	414	68 days									
417		Test Plan Doc.	0%		2 days									
418		Manual Bench top test (straight pipe)	0%	417	4 days									
419		Science protocol development	0%	418	5 days									
420		Move onto PT. Lobos	0%	419	1 day									
421		ROV Test (straight pipe)	0%	420	1 day									
422		Bench Test using sampling protocol	0%	421	5 days									
423		Response to test	0%	422	5 days									
424		Bench test with ESP test fixture	0%	423	10 days									
425		ROV Test with test fixture?	0%	424	10 days									
426		Bench test with Instrument	0%	425	10 days									
427		ROV Test with ESP	0%	426	10 days									
428														
429			0%	427	5 days									
430		Fluidic Interface to PCR module	0%		0 days									
431		System	0%		0 days									
432		Requirements Document	0%		0 days									
433		Redesign of Core	0%		0 days									
434		Assembly	0%		0 days									
435		Electrical	0%		0 days									
436		Design	0%		0 days									
437		Procurement	0%		0 days									
438		Fabrication	0%		0 days									
439		Testing	0%		0 days									

ID		Task Name	% complete	leces	Work	12/17	12/31	1/14	1/28	2/11	2/25	3/11	3/25	4/8
440		Mechanical	0%		0 days									
441		Design	0%		0 days									
442		Procurement	0%		0 days									
443		Fabrication	0%		0 days									
444		Testing	0%		0 days									
445		Software	0%		0 days									
446		Design	0%		0 days									
447		Procurement	0%		0 days									
448		Development	0%		0 days									
449		Testing	0%		0 days									
450		Integration & Testing	0%		0 days									
451		Software Control	0%		0 days									
452		Testing in House	0%		0 days									
453		Testing with PCR	0%		0 days									
454		Integration into Core	0%		0 days									
455		Testing System	0%		0 days									
456		ISUS context sensor incorp	0%		230 days									
457		Sci	0%		0 days									
458		Sci Tech	0%		0 days									
459		EE	0%		2 days									
460		ME	0%		3 days									
461		SE	0%		10 days									
462		modify/fab DWSM	0%		55 days									
470		Modify/fab 2G	0%		90 days									
479		design/fab pressure housing	0%		40 days									
487		design/fab benthic mooring structure	0%		30 days									
499		Operations	0%		0 days									
507			0%		0 days									
508		Moore Foundation	0%		151 days									
509		define functional requirements	0%		0 days									
510		Survey of PCR, microarrays, Capillary	0%		0 days									
511		Gather Zehr's requirements	0%		0 days									
512		evaluate existing analytical modules - candidacy	0%		28 days									
517		downselect candidate modules - develop test plan	0%		11 days									
522		develop lab test fixture that incorps elements of ESP a	0%		112 days									

ID		Task Name	% omplet	leces	Work	May 1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
						4/22	5/6	5/20	6/3	6/17	7/1	7/15	7/29	8/12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
1		GiGi core	14%		103.5 days																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

ID		Task Name	% omplet	leces	Work	May 1									
						4/22	5/6	5/20	6/3	6/17	7/1	7/15	7/29	8/12	
185		Pre-production	0%		120 days										
186		system	0%		0 days										
187		Investigate BC Tech subcontracts	0%		0 days										
188		Extending duration	0%		0 days										
189		Mechanical	0%		55 days										
190		Solid Works critical subassemblies	0%		25 days										
191		Bid subassemblies	0%	190	2 days										
192		Procure subassemblies	0%	191	1 day										
193		Solid Works complete model & print packag	0%	192	0 days										
194		Bid print package	0%	193	1 day										
195		Cost estimate of COTS parts + sparse	0%		5 days										
196		Order machined parts	0%	194	1 day										
197		Order COTS	0%	195	10 days										
198		Parts Inventory & Organization	0%	195	10 days										
199		Electrical	2%		25 days										
200		Investigate subcontracting cabling	0%		5 days										
201		Investigate subcontracting boards	0%		1 day										
202		Schematics Verified	0%		3 days										
203		Lab space & staging area	50%		2 days										
204		Cost Estimate	0%	202	1 day										
205		Order Parts	0%	204	3 days										
206		Part inventory & Organization	0%	202	5 days										
207		All EE Parts in House	0%		0 days										
208		Document Package	0%		5 days										
209		Software	0%		40 days										
210		Modularize scripting	0%		5 days										
211		document all software	0%	210	10 days										
212		software user manual	0%	211	15 days										
213		Increase duration to 1 month	0%		10 days										
214		Production	0%		147 days										
215		Documentation	0%		10 days										
216		Software user manual	0%		10 days										
217		Mechanical	0%		126 days										
218		All COTS parts in house	0%		0 days										
219		All Fabricated parts in house	0%		0 days										
220		Camera Jig	0%		3 days										

ID		Task Name	% omplet	leces	Work	May 1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
						4/22	5/6	5/20	6/3	6/17	7/1	7/15	7/29	8/12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
221		Subassembly	0%		81 days																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

ID		Task Name	% complete	leces	Work	May 1									
						4/22	5/6	5/20	6/3	6/17	7/1	7/15	7/29	8/12	
257		Camera power supply	0%	256	2 days										
258		Waste container	0%	257	1 day										
259		Plumbing Final	0%	258	4 days										
260		Final assembly complete	0%	259	0 days										
261		Software	0%		5 days										
262		Finalized CDs?	0%		5 days										
263		Electrical	0%		6 days										
264		Cabling	0%		2 days										
265		Fabrication	0%		2 days										
266		Existing board update	0%		2 days										
267		Quality Assurance	0%		42 days										
268		Alignment	0%		10 days										
269		Reagent Storage	0%		1 day										
270		Initial Integration & Test	0%		10 days										
271		Cold water test	0%		8 days										
272		Tank test	0%		8 days										
273		Rework	0%		5 days										
274		Support	0%		0 days										
275		Copy Resources	0%		0 days										
276		initial user workshop - prep for demo deployment	0%		0 days										
277		workshop Resources	0%		0 days										
278															
279		Deep water GiGI	1%		110 days										
355															
356		NASA ASTEP	0%		435 days										
357		Meeting review	0%		0 days										
358		Kick off meeting	0%	357	0 days										
359		System Specification	0%		6 days										
360		LLNL I.C.D. Specifications	0%		6 days										
361		PCR Module Mechanical & Electrical	0%		1 day										
362		Command Control Interface	0%		1 day										
363		Thermal Interface	0%		1 day										
364		Fluidic Interface	0%		1 day										
365		Data Processing	0%		1 day										
366		Generic Protocol	0%		1 day										
367		MBARI Engineering I.C.D. Specifications	0%		0 days										

ID		Task Name	% omplet	ieces	Work	May 1								
						4/22	5/6	5/20	6/3	6/17	7/1	7/15	7/29	8/12
368		Electrical	0%		0 days									
369		Software	0%		0 days									
370		Thermal Interface	0%		0 days									
371		Mechanical	0%		0 days									
372		Sci	0%		0 days									
373		MBARI Science Specs	0%		0 days									
374		Sampling spec.	0%		0 days									
375		Sample Inventory	0%		0 days									
376		Identify cruises of opportunity	0%		0 days									
377		Identify suite of contextual sensors	0%		0 days									
378		Develop detailed use case scenarios	0%		0 days									
379		Assay Development	0%		0 days									
380		SH Assay Development & Testing	0%		0 days									
381		PCR Assay Development & Testing	0%		0 days									
382		Probe validation and calibration	0%		0 days									
383		Identify possible positive control	0%		0 days									
384		Reagent stability test	0%		0 days									
385		Bench comparison w/ realistic sample volume	0%		0 days									
386		Run hybrid on bench, test with cold	0%		0 days									
387		Science Test	0%		0 days									
388		ESP lab test (existing unit)	0%		0 days									
389		ESP Lab test (ASTEP dedicated unit)	0%		0 days									
390		Presentation and publications	0%		0 days									
391														
392		DWSM 1G (1KM)	0%		199 days									
393		System	0%		11 days									
394		System requires & concept doc.	0%		1 day									
395		?????Test fixture development????	0%		10 days									
396		Mechancial	0%		29 days									
397		Pressure test of Deep water housing Port Huene	0%		5 days									
398		Mechanical Assembly	0%	397	2 days									
399		Final Assembly	0%	398	1 day									
400		Modified bracket designed & fabricated	0%		5 days									
401		Design toolsled interface	0%	400	10 days									
402		Fabricate toolsled interface	0%	401	6 days									
403		Electrical	0%		15 days									

ID		Task Name	% complete	leces	Work	May 1									
						4/22	5/6	5/20	6/3	6/17	7/1	7/15	7/29	8/12	
404		Analog pressure to Elmo controller	0%		10 days										
405		Connectors?	0%	404	1 day										
406		Cabling spec & procure	0%	405	3 days										
407		Cabling of pressure to Elmo	0%	406	1 day										
408		Software	0%		76 days										
409		System Model Development	0%		10 days										
410		Analysis & Design of Control Algorithm	0%	409	31 days										
411		Software development	0%	410	15 days										
412		Analysis at varying depths	0%	411	0 days										
413		Test & Integration	0%	412	10 days										
414		Protocol development	0%	413	5 days										
415		Protocols implementation	0%		5 days										
416		Integration	0%	414	68 days										
417		Test Plan Doc.	0%		2 days										
418		Manual Bench top test (straight pipe)	0%	417	4 days										
419		Science protocol development	0%	418	5 days										
420		Move onto PT. Lobos	0%	419	1 day										
421		ROV Test (straight pipe)	0%	420	1 day										
422		Bench Test using sampling protocol	0%	421	5 days										
423		Response to test	0%	422	5 days										
424		Bench test with ESP test fixture	0%	423	10 days										
425		ROV Test with test fixture?	0%	424	10 days										
426		Bench test with Instrument	0%	425	10 days										
427		ROV Test with ESP	0%	426	10 days										
428															
429			0%	427	5 days										
430		Fluidic Interface to PCR module	0%		0 days										
431		System	0%		0 days										
432		Requirements Document	0%		0 days										
433		Redesign of Core	0%		0 days										
434		Assembly	0%		0 days										
435		Electrical	0%		0 days										
436		Design	0%		0 days										
437		Procurement	0%		0 days										
438		Fabrication	0%		0 days										
439		Testing	0%		0 days										

ID		Task Name	% omplet	ieces	Work	May 1																		
						4/22	5/6	5/20	6/3	6/17	7/1	7/15	7/29	8/12										
440		Mechanical	0%		0 days																			
441		Design	0%		0 days																			
442		Procurement	0%		0 days																			
443		Fabrication	0%		0 days																			
444		Testing	0%		0 days																			
445		Software	0%		0 days																			
446		Design	0%		0 days																			
447		Procurement	0%		0 days																			
448		Development	0%		0 days																			
449		Testing	0%		0 days																			
450		Integration & Testing	0%		0 days																			
451		Software Control	0%		0 days																			
452		Testing in House	0%		0 days																			
453		Testing with PCR	0%		0 days																			
454		Integration into Core	0%		0 days																			
455		Testing System	0%		0 days																			
456		ISUS context sensor incorp	0%		230 days																			
457		Sci	0%		0 days																			
458		Sci Tech	0%		0 days																			
459		EE	0%		2 days																			
460		ME	0%		3 days																			
461		SE	0%		10 days																			
462		modify/fab DWSM	0%		55 days																			
470		Modify/fab 2G	0%		90 days																			
479		design/fab pressure housing	0%		40 days																			
487		design/fab benthic mooring structure	0%		30 days																			
499		Operations	0%		0 days																			
507			0%		0 days																			
508		Moore Foundation	0%		151 days																			
509		define functional requirements	0%		0 days																			
510		Survey of PCR, microarrays, Capillary	0%		0 days																			
511		Gather Zehr's requirements	0%		0 days																			
512		evaluate existing analytical modules - candidacy	0%		28 days																			
517		downselect candidate modules - develop test plan	0%		11 days																			
522		develop lab test fixture that incorps elements of ESP a	0%		112 days																			

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ID		Task Name	% complete	leaves	Work	8/26	9/9	9/23	10/7	10/21	11/4	11/18	12/2	12/16
1		GiGi core	14%		103.5 days									
2		Final instrument modifications	0%		0 days									
3														
4		Refit system valves to Cheminert valves	41%		18.5 days									
5	 	Order new valves	100%		0.5 days									
6		Split cost of valves	0%		0 days									
7		Valves arrive	0%		0 days									
8														
9		Valve bracket redesign	100%		4 days									
23		Valve placement in instrument	90%		0 days									
38		Protocol redevelopment	0%		10 days									
39		Refit completion	0%		4 days									
41														
42		modify bulkhead valves - eliminate solenoid	0%		35 days									
58														
59		Software	0%		50 days									
64														
65		shutter on sample intake port (50m depth max)	0%		41 days									
81														
82		Software	0%		35 days									
85														
86		Finish surface surface water housing for GiGi	0%		3 days									
95														
96		Mooring 2 battery configuration	0%		0 days									
101														
102														
103														
104														
105														
106		Tank Deployment	0%	98	1 day									
107														
108														
109		Shallow water deployments	0%	106	60 days									
182														
183		Tech xfer	0%		309 days									
184		Build 3 copies using existing design and spec, based	0%		309 days									

ID		Task Name	% omple	leces	Work	8/26	9/9	9/23	10/7	10/21	11/4	11/18	12/2	12/16
185		Pre-production	0%		120 days									
186		system	0%		0 days									
187		Investigate BC Tech subcontracts	0%		0 days									
188		Extending duration	0%		0 days									
189		Mechanical	0%		55 days									
190		Solid Works critical subassemblies	0%		25 days									
191		Bid subassemblies	0%	190	2 days									
192		Procure subassemblies	0%	191	1 day									
193		Solid Works complete model & print packag	0%	192	0 days									
194		Bid print package	0%	193	1 day									
195		Cost estimate of COTS parts + sparse	0%		5 days									
196		Order machined parts	0%	194	1 day									
197		Order COTS	0%	195	10 days									
198		Parts Inventory & Organization	0%	195	10 days									
199		Electrical	2%		25 days									
200		Investigate subcontracting cabling	0%		5 days									
201		Investigate subcontracting boards	0%		1 day									
202		Schematics Verified	0%		3 days									
203		Lab space & staging area	50%		2 days									
204		Cost Estimate	0%	202	1 day									
205		Order Parts	0%	204	3 days									
206		Part inventory & Organization	0%	202	5 days									
207		All EE Parts in House	0%		0 days									
208		Document Package	0%		5 days									
209		Software	0%		40 days									
210		Modularize scripting	0%		5 days									
211		document all software	0%	210	10 days									
212		software user manual	0%	211	15 days									
213		Increase duration to 1 month	0%		10 days									
214		Production	0%		147 days									
215		Documentation	0%		10 days									
216		Software user manual	0%		10 days									
217		Mechanical	0%		126 days									
218		All COTS parts in house	0%		0 days									
219		All Fabricated parts in house	0%		0 days									
220		Camera Jig	0%		3 days									

ID		Task Name	% omplet	leces	Work	8/26	9/9	9/23	10/7	10/21	11/4	11/18	12/2	12/16
221		Subassembly	0%		81 days									
222		Carosel	0%		5 days									
223		Carosel mounting/top plate	0%	222	3 days									
224		Syringes	0%	223	4 days									
225		Manipulator Mechanical	0%	224	5 days									
226		Clamps	0%	225	5 days									
227		Heater	0%	226	5 days									
228		Plate	0%	227	5 days									
229		Rotary Valves	0%	228	9 days									
230		Syringe and rotary valve	0%	229	1 day									
231		Series Valves	0%	230	3 days									
232		Camera	0%	231	4 days									
233		Camera power supply	0%	232	2 days									
234		Elevator	0%	233	3 days									
235		Dwarf assembly	0%	234	5 days									
236		Sleepy board mounting	0%	235	2 days									
237		Manipulator Final	0%	236	5 days									
238		Tube preparation and plumbing	0%	237	9 days									
239		Jensen spit tubes	0%	238	1 day									
240		Miscellaneous	0%	239	5 days									
241		Subassemblies complete	0%	240	0 days									
242		Final Assembly	0%	241	42 days									
243		Mounting plate on holder	0%	239	4 days									
244		heaters	0%	243	2 days									
245		Elevator	0%	244	2 days									
246		Clamps	0%	245	1 day									
247		Syringe and Rotary Valve	0%	246	1 day									
248		Rotary valves	0%	247	4 days									
249		Series valves	0%	248	1 day									
250		Plumbing initial	0%	249	4 days									
251		Camera	0%	250	1 day									
252		Manipulator	0%	251	1 day									
253		Garage	0%	252	1 day									
254		Dwarfs	0%	253	4 days									
255		Sleepy board	0%	254	1 day									
256		Wiring	0%	255	8 days									

ID		Task Name	% complete	leces	Work	8/26	9/9	9/23	10/7	10/21	11/4	11/18	12/2	12/16
257		Camera power supply	0%	256	2 days									
258		Waste container	0%	257	1 day									
259		Plumbing Final	0%	258	4 days									
260		Final assembly complete	0%	259	0 days									
261		Software	0%		5 days									
262		Finalized CDs?	0%		5 days									
263		Electrical	0%		6 days									
264		Cabling	0%		2 days									
265		Fabrication	0%		2 days									
266		Existing board update	0%		2 days									
267		Quality Assurance	0%		42 days									
268		Alignment	0%		10 days									
269		Reagent Storage	0%		1 day									
270		Initial Integration & Test	0%		10 days									
271		Cold water test	0%		8 days									
272		Tank test	0%		8 days									
273		Rework	0%		5 days									
274		Support	0%		0 days									
275		Copy Resources	0%		0 days									
276		initial user workshop - prep for demo deployment	0%		0 days									
277		workshop Resources	0%		0 days									
278														
279		Deep water GiGI	1%		110 days									
355														
356		NASA ASTEP	0%		435 days									
357		Meeting review	0%		0 days									
358		Kick off meeting	0%	357	0 days									
359		System Specification	0%		6 days									
360		LLNL I.C.D. Specifications	0%		6 days									
361		PCR Module Mechanical & Electrical	0%		1 day									
362		Command Control Interface	0%		1 day									
363		Thermal Interface	0%		1 day									
364		Fluidic Interface	0%		1 day									
365		Data Processing	0%		1 day									
366		Generic Protocol	0%		1 day									
367		MBARI Engineering I.C.D. Specifications	0%		0 days									

ID		Task Name	% omplet	ieces	Work								
						8/26	9/9	9/23	10/7	10/21	11/4	11/18	12/2
368		Electrical	0%		0 days								
369		Software	0%		0 days								
370		Thermal Interface	0%		0 days								
371		Mechanical	0%		0 days								
372		Sci	0%		0 days								
373		MBARI Science Specs	0%		0 days								
374		Sampling spec.	0%		0 days								
375		Sample Inventory	0%		0 days								
376		Identify cruises of opportunity	0%		0 days								
377		Identify suite of contextual sensors	0%		0 days								
378		Develop detailed use case scenarios	0%		0 days								
379		Assay Development	0%		0 days								
380		SH Assay Development & Testing	0%		0 days								
381		PCR Assay Development & Testing	0%		0 days								
382		Probe validation and calibration	0%		0 days								
383		Identify possible positive control	0%		0 days								
384		Reagent stability test	0%		0 days								
385		Bench comparison w/ realistic sample volume	0%		0 days								
386		Run hybrid on bench, test with cold	0%		0 days								
387		Science Test	0%		0 days								
388		ESP lab test (existing unit)	0%		0 days								
389		ESP Lab test (ASTEP dedicated unit)	0%		0 days								
390		Presentation and publications	0%		0 days								
391													
392		DWSM 1G (1KM)	0%		199 days								
393		System	0%		11 days								
394		System requires & concept doc.	0%		1 day								
395		?????Test fixture development????	0%		10 days								
396		Mechancial	0%		29 days								
397		Pressure test of Deep water housing Port Huene	0%		5 days								
398		Mechanical Assembly	0%	397	2 days								
399		Final Assembly	0%	398	1 day								
400		Modified bracket designed & fabricated	0%		5 days								
401		Design toolsled interface	0%	400	10 days								
402		Fabricate toolsled interface	0%	401	6 days								
403		Electrical	0%		15 days								

ID		Task Name	% omplet	leces	Work								
						8/26	9/9	9/23	10/7	10/21	11/4	11/18	12/2
404		Analog pressure to Elmo controller	0%		10 days								
405		Connectors?	0%	404	1 day								
406		Cabling spec & procure	0%	405	3 days								
407		Cabling of pressure to Elmo	0%	406	1 day								
408		Software	0%		76 days								
409		System Model Development	0%		10 days								
410		Analysis & Design of Control Algorithm	0%	409	31 days								
411		Software development	0%	410	15 days								
412		Analysis at varying depths	0%	411	0 days								
413		Test & Integration	0%	412	10 days								
414		Protocol development	0%	413	5 days								
415		Protocols implementation	0%		5 days								
416		Integration	0%	414	68 days								
417		Test Plan Doc.	0%		2 days								
418		Manual Bench top test (straight pipe)	0%	417	4 days								
419		Science protocol development	0%	418	5 days								
420		Move onto PT. Lobos	0%	419	1 day								
421		ROV Test (straight pipe)	0%	420	1 day								
422		Bench Test using sampling protocol	0%	421	5 days								
423		Response to test	0%	422	5 days								
424		Bench test with ESP test fixture	0%	423	10 days								
425		ROV Test with test fixture?	0%	424	10 days								
426		Bench test with Instrument	0%	425	10 days								
427		ROV Test with ESP	0%	426	10 days								
428													
429			0%	427	5 days								
430		Fluidic Interface to PCR module	0%		0 days								
431		System	0%		0 days								
432		Requirements Document	0%		0 days								
433		Redesign of Core	0%		0 days								
434		Assembly	0%		0 days								
435		Electrical	0%		0 days								
436		Design	0%		0 days								
437		Procurement	0%		0 days								
438		Fabrication	0%		0 days								
439		Testing	0%		0 days								

ID		Task Name	% omple	ieces	Work								
						8/26	9/9	9/23	10/7	10/21	11/4	11/18	12/2
440		Mechanical	0%		0 days								
441		Design	0%		0 days								
442		Procurement	0%		0 days								
443		Fabrication	0%		0 days								
444		Testing	0%		0 days								
445		Software	0%		0 days								
446		Design	0%		0 days								
447		Procurement	0%		0 days								
448		Development	0%		0 days								
449		Testing	0%		0 days								
450		Integration & Testing	0%		0 days								
451		Software Control	0%		0 days								
452		Testing in House	0%		0 days								
453		Testing with PCR	0%		0 days								
454		Integration into Core	0%		0 days								
455		Testing System	0%		0 days								
456		ISUS context sensor incorp	0%		230 days								
457		Sci	0%		0 days								
458		Sci Tech	0%		0 days								
459		EE	0%		2 days								
460		ME	0%		3 days								
461		SE	0%		10 days								
462		modify/fab DWSM	0%		55 days								
470		Modify/fab 2G	0%		90 days								
479		design/fab pressure housing	0%		40 days								
487		design/fab benthic mooring structure	0%		30 days								
499		Operations	0%		0 days								
507			0%		0 days								
508		Moore Foundation	0%		151 days								
509		define functional requirements	0%		0 days								
510		Survey of PCR, microarrays, Capillary	0%		0 days								
511		Gather Zehr's requirements	0%		0 days								
512		evaluate existing analytical modules - candidacy	0%		28 days								
517		downselect candidate modules - develop test plan	0%		11 days								
522		develop lab test fixture that incorps elements of ESP a	0%		112 days								

ID		Task Name	% omplet	leces	Work	March 1							
						12/30	1/13	1/27	2/10	2/24	3/9	3/23	4/6
1		GiGi core	14%		103.5 days								
2		Final instrument modifications	0%		0 days								
3													
4		Refit system valves to Cheminert valves	41%		18.5 days								
5	 	Order new valves	100%		0.5 days								
6		Split cost of valves	0%		0 days								
7		Valves arrive	0%		0 days								
8													
9		Valve bracket redesign	100%		4 days								
23		Valve placement in instrument	90%		0 days								
38		Protocol redevelopment	0%		10 days								
39		Refit completion	0%		4 days								
41													
42		modify bulkhead valves - eliminate solenoid	0%		35 days								
58													
59		Software	0%		50 days								
64													
65		shutter on sample intake port (50m depth max)	0%		41 days								
81													
82		Software	0%		35 days								
85													
86		Finish surface surface water housing for GiGi	0%		3 days								
95													
96		Mooring 2 battery configuration	0%		0 days								
101													
102													
103													
104													
105													
106		Tank Deployment	0%	98	1 day								
107													
108													
109		Shallow water deployments	0%	106	60 days								
182													
183		Tech xfer	0%		309 days								
184		Build 3 copies using exisiting design and spec, based	0%		309 days								

ID		Task Name	% omplet	leces	Work	March 1								
						12/30	1/13	1/27	2/10	2/24	3/9	3/23	4/6	4/20
185		Pre-production	0%		120 days									
186		system	0%		0 days									
187		Investigate BC Tech subcontracts	0%		0 days									
188		Extending duration	0%		0 days									
189		Mechanical	0%		55 days									
190		Solid Works critical subassemblies	0%		25 days									
191		Bid subassemblies	0%	190	2 days									
192		Procure subassemblies	0%	191	1 day									
193		Solid Works complete model & print packag	0%	192	0 days									
194		Bid print package	0%	193	1 day									
195		Cost estimate of COTS parts + sparse	0%		5 days									
196		Order machined parts	0%	194	1 day									
197		Order COTS	0%	195	10 days									
198		Parts Inventory & Organization	0%	195	10 days									
199		Electrical	2%		25 days									
200		Investigate subcontracting cabling	0%		5 days									
201		Investigate subcontracting boards	0%		1 day									
202		Schematics Verified	0%		3 days									
203		Lab space & staging area	50%		2 days									
204		Cost Estimate	0%	202	1 day									
205		Order Parts	0%	204	3 days									
206		Part inventory & Organization	0%	202	5 days									
207		All EE Parts in House	0%		0 days									
208		Document Package	0%		5 days									
209		Software	0%		40 days									
210		Modularize scripting	0%		5 days									
211		document all software	0%	210	10 days									
212		software user manual	0%	211	15 days									
213		Increase duration to 1 month	0%		10 days									
214		Production	0%		147 days									
215		Documentation	0%		10 days									
216		Software user manual	0%		10 days									
217		Mechanical	0%		126 days									
218		All COTS parts in house	0%		0 days									
219		All Fabricated parts in house	0%		0 days									
220		Camera Jig	0%		3 days									

ID		Task Name	% omplet	leces	Work	March 1								
						12/30	1/13	1/27	2/10	2/24	3/9	3/23	4/6	4/20
221		Subassembly	0%		81 days									
222		Carosel	0%		5 days									
223		Carosel mounting/top plate	0%	222	3 days									
224		Syringes	0%	223	4 days									
225		Manipulator Mechanical	0%	224	5 days									
226		Clamps	0%	225	5 days									
227		Heater	0%	226	5 days									
228		Plate	0%	227	5 days									
229		Rotary Valves	0%	228	9 days									
230		Syringe and rotary valve	0%	229	1 day									
231		Series Valves	0%	230	3 days									
232		Camera	0%	231	4 days									
233		Camera power supply	0%	232	2 days									
234		Elevator	0%	233	3 days									
235		Dwarf assembly	0%	234	5 days									
236		Sleepy board mounting	0%	235	2 days									
237		Manipulator Final	0%	236	5 days									
238		Tube preparation and plumbing	0%	237	9 days									
239		Jensen spit tubes	0%	238	1 day									
240		Miscellaneous	0%	239	5 days									
241		Subassemblies complete	0%	240	0 days									
242		Final Assembly	0%	241	42 days									
243		Mounting plate on holder	0%	239	4 days									
244		heaters	0%	243	2 days									
245		Elevator	0%	244	2 days									
246		Clamps	0%	245	1 day									
247		Syringe and Rotary Valve	0%	246	1 day									
248		Rotary valves	0%	247	4 days									
249		Series valves	0%	248	1 day									
250		Plumbing initial	0%	249	4 days									
251		Camera	0%	250	1 day									
252		Manipulator	0%	251	1 day									
253		Garage	0%	252	1 day									
254		Dwarfs	0%	253	4 days									
255		Sleepy board	0%	254	1 day									
256		Wiring	0%	255	8 days									

ID		Task Name	% complete	leces	Work	March 1								
						12/30	1/13	1/27	2/10	2/24	3/9	3/23	4/6	4/20
257		Camera power supply	0%	256	2 days									
258		Waste container	0%	257	1 day									
259		Plumbing Final	0%	258	4 days									
260		Final assembly complete	0%	259	0 days									
261		Software	0%		5 days									
262		Finalized CDs?	0%		5 days									
263		Electrical	0%		6 days									
264		Cabling	0%		2 days									
265		Fabrication	0%		2 days									
266		Existing board update	0%		2 days									
267		Quality Assurance	0%		42 days									
268		Alignment	0%		10 days									
269		Reagent Storage	0%		1 day									
270		Initial Integration & Test	0%		10 days									
271		Cold water test	0%		8 days									
272		Tank test	0%		8 days									
273		Rework	0%		5 days									
274		Support	0%		0 days									
275		Copy Resources	0%		0 days									
276		initial user workshop - prep for demo deployment	0%		0 days									
277		workshop Resources	0%		0 days									
278														
279		Deep water GiGI	1%		110 days									
355														
356		NASA ASTEP	0%		435 days									
357		Meeting review	0%		0 days									
358		Kick off meeting	0%	357	0 days									
359		System Specification	0%		6 days									
360		LLNL I.C.D. Specifications	0%		6 days									
361		PCR Module Mechanical & Electrical	0%		1 day									
362		Command Control Interface	0%		1 day									
363		Thermal Interface	0%		1 day									
364		Fluidic Interface	0%		1 day									
365		Data Processing	0%		1 day									
366		Generic Protocol	0%		1 day									
367		MBARI Engineering I.C.D. Specifications	0%		0 days									

ID		Task Name	% omplet	ieces	Work	March 1								
						12/30	1/13	1/27	2/10	2/24	3/9	3/23	4/6	4/20
368		Electrical	0%		0 days									
369		Software	0%		0 days									
370		Thermal Interface	0%		0 days									
371		Mechanical	0%		0 days									
372		Sci	0%		0 days									
373		MBARI Science Specs	0%		0 days									
374		Sampling spec.	0%		0 days									
375		Sample Inventory	0%		0 days									
376		Identify cruises of opportunity	0%		0 days									
377		Identify suite of contextual sensors	0%		0 days									
378		Develop detailed use case scenarios	0%		0 days									
379		Assay Development	0%		0 days									
380		SH Assay Development & Testing	0%		0 days									
381		PCR Assay Development & Testing	0%		0 days									
382		Probe validation and calibration	0%		0 days									
383		Identify possible positive control	0%		0 days									
384		Reagent stability test	0%		0 days									
385		Bench comparison w/ realistic sample volume	0%		0 days									
386		Run hybrid on bench, test with cold	0%		0 days									
387		Science Test	0%		0 days									
388		ESP lab test (existing unit)	0%		0 days									
389		ESP Lab test (ASTEP dedicated unit)	0%		0 days									
390		Presentation and publications	0%		0 days									
391														
392		DWSM 1G (1KM)	0%		199 days									
393		System	0%		11 days									
394		System requires & concept doc.	0%		1 day									
395		?????Test fixture development????	0%		10 days									
396		Mechancial	0%		29 days									
397		Pressure test of Deep water housing Port Huene	0%		5 days									
398		Mechanical Assembly	0%	397	2 days									
399		Final Assembly	0%	398	1 day									
400		Modified bracket designed & fabricated	0%		5 days									
401		Design toolsled interface	0%	400	10 days									
402		Fabricate toolsled interface	0%	401	6 days									
403		Electrical	0%		15 days									

ID		Task Name	% complete	Issues	Work	March 1								
						12/30	1/13	1/27	2/10	2/24	3/9	3/23	4/6	4/20
404		Analog pressure to Elmo controller	0%		10 days									
405		Connectors?	0%	404	1 day									
406		Cabling spec & procure	0%	405	3 days									
407		Cabling of pressure to Elmo	0%	406	1 day									
408		Software	0%		76 days									
409		System Model Development	0%		10 days									
410		Analysis & Design of Control Algorithm	0%	409	31 days									
411		Software development	0%	410	15 days									
412		Analysis at varying depths	0%	411	0 days									
413		Test & Integration	0%	412	10 days									
414		Protocol development	0%	413	5 days									
415		Protocols implementation	0%		5 days									
416		Integration	0%	414	68 days									
417		Test Plan Doc.	0%		2 days									
418		Manual Bench top test (straight pipe)	0%	417	4 days									
419		Science protocol development	0%	418	5 days									
420		Move onto PT. Lobos	0%	419	1 day									
421		ROV Test (straight pipe)	0%	420	1 day									
422		Bench Test using sampling protocol	0%	421	5 days									
423		Response to test	0%	422	5 days									
424		Bench test with ESP test fixture	0%	423	10 days									
425		ROV Test with test fixture?	0%	424	10 days									
426		Bench test with Instrument	0%	425	10 days									
427		ROV Test with ESP	0%	426	10 days									
428														
429			0%	427	5 days									
430		Fluidic Interface to PCR module	0%		0 days									
431		System	0%		0 days									
432		Requirements Document	0%		0 days									
433		Redesign of Core	0%		0 days									
434		Assembly	0%		0 days									
435		Electrical	0%		0 days									
436		Design	0%		0 days									
437		Procurement	0%		0 days									
438		Fabrication	0%		0 days									
439		Testing	0%		0 days									

ID		Task Name	% complete	leces	Work						March 1									
						12/30	1/13	1/27	2/10	2/24	3/9	3/23	4/6	4/20						
440		Mechanical	0%		0 days															
441		Design	0%		0 days															
442		Procurement	0%		0 days															
443		Fabrication	0%		0 days															
444		Testing	0%		0 days															
445		Software	0%		0 days															
446		Design	0%		0 days															
447		Procurement	0%		0 days															
448		Development	0%		0 days															
449		Testing	0%		0 days															
450		Integration & Testing	0%		0 days															
451		Software Control	0%		0 days															
452		Testing in House	0%		0 days															
453		Testing with PCR	0%		0 days															
454		Integration into Core	0%		0 days															
455		Testing System	0%		0 days															
456		ISUS context sensor incorp	0%		230 days															
457		Sci	0%		0 days															
458		Sci Tech	0%		0 days															
459		EE	0%		2 days															
460		ME	0%		3 days															
461		SE	0%		10 days															
462		modify/fab DWSM	0%		55 days															
470		Modify/fab 2G	0%		90 days															
479		design/fab pressure housing	0%		40 days															
487		design/fab benthic mooring structure	0%		30 days															
499		Operations	0%		0 days															
507			0%		0 days															
508		Moore Foundation	0%		151 days															
509		define functional requirements	0%		0 days															
510		Survey of PCR, microarrays, Capillary	0%		0 days															
511		Gather Zehr's requirements	0%		0 days															
512		evaluate existing analytical modules - candidacy	0%		28 days															
517		downselect candidate modules - develop test plan	0%		11 days															
522		develop lab test fixture that incorps elements of ESP a	0%		112 days															