Element	Issue	Possible Delay
Programming	Optimizations affect the speed and accuracy of at which the ECU will operate. Timing toleraces must be met under these conditions. Calculations will determine if we meet these requirements.	Compiler lead time 3 days, funding issues will also cause delay
	Risk Level - Moderate	Delay Length - Long
	Code Size - Code is currently at 11K using optimizations and is over the 16K limit without.	Compiler lead time 3 days, funding issues will also cause delay
	Risk Level - Moderate	Delay Length - Long
		MIN 0.5 Days, MAX 3 Days
	Risk Level - Moderate	Delay Length - Short
	Code De-bugging Time Forecasting Difficulties due to our teams' lack of experience with the code being used.	MIN 2 Days, MAX 1 Week
	Risk Level - Moderate	Delay Length - Long
Simulation Models	De-bugging Time Forecasting Difficulties - The majority of the simulation has now been completed with the injectors now to be tested.	MIN One Day, MAX One week
	Risk Level - Low	Delay Length - Long
	Pspice Models Not Available	This risk was planned on in the group's schedule and the proto board testing is currently being completed.
	Risk Level - Moderate	Delay Length - Long
	Pspice Not Capable of Modelling Components	This risk was planned on in the group's schedule and the proto board testing is currently being completed.
	Risk Level - High	Delay Length - No Delay For Parts which were planned for testing.
PCB Board	Error in PCB Design	1 week + time to notice +cost
	Risk Level - Moderate	Delay Length - Long
	Destruction of PCB all PCB boards Printed	1 week + time to notice +cost

		Risk Level - Low	Delay Length - Long
Lab Testing	Destruction of Board		
		Risk Level - Moderate	Delay Length - Short
	Evidence to prove theorectical calculations wrong		
		Risk Level - Low	Delay Length - Long
	Destruction of Case		5 days
		Risk Level - Low	Delay Length - Moderate
Field Testing	Insufficient testing		Customer satisfaction
		Risk Level - Moderate	Delay Length - Incompletion
	Destruction of Board		1/2 week
		Risk Level - Low	Delay Length - Long
	Destruction of Case		1 week
		Risk Level - Low	Delay Length - Moderate

Solutions	Critical Path	
Purchase of full size complier ($1000 and week delay for delivery). This Also causes a budget issue for us and is not the reccommended soultion.	X	
Purchase of full size complier (as above.)	X	
Reduction of lookup tables library to minimize the size of the tables. This has limited capability in the amount that it can reduce the code size. It is inexpensive but requires man hours (estimated 5 hours.)	X	
Contact Chris Fueurstein for assitance and explaination		
Trouble-shooting is necessary since the problem can not always be pin pointed and these models will have to be created by our group, not from other models.	X	
Models will have to be tested using proto boards.	X	
	X	
Error in design of ordered PCB board is a monetary and time issue. There is a balance between money and lead time that would have to be decided on in this situation. Our original plan is to purchase with one week lead time.	X	
Purchase of multiple boards will reduce the risk of this occuring. The incremental cost of the boards is low enough to reason for purchase of extra boards.	X	

PCB Board leadtime based on our budget will be one week. As a result we will be ordering extra boards with the initial order since the set up cost is high and the incremental cost for additional boards is relatively small. Populting additional boards will prevent this error from causing long delays. This occuring may require case changes however.	X	
Problem diagnosis required and repairs made to PCB design and re-order.	X	
Diagnosis would be required at this point and evaluation of the current design. Lead time for materials to rebuild is		
Though testing can be reduced in the case that other tasks take longer to complete, this will most definitley result in the product not being used. This result would not qaulify as a success for our team.	X	
See Above.	X	
See Above	X	