Course Project – Project Scope Statement

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B362/GEB3422

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Management Course.





	DOCUMENT 1	NFORMATION	
Project Name:	SacTactical	Prepared By:	S.P
Project Manager:	Shaun Pritchard	Period Covered:	B362/GEB3422
Version	Date	Author	Change Description
1.0.0	10/18/2020	Shaun Pritchard	n.d

Project Final Report

Executive Summary

SacTactical has been awarded to develop, manufacture, and deliver 200+ military grade

Backpacks with built in refrigerated pouch and radio module for the U.S. Army,

Ground Forces and Special Operations. Within the allocated resources budget of \$1.5 million dollars and processing timeline within 18 months to deliver final product. The U.S. Army,

Ground. At SacTactical we take pride in having the best track record for developing and manufacturing cutting edge military products. We stand by our reputation to take on this contract and deliver the following.



SacTacticle contract details:

- Product: Backpack with built in refrigerated pouch and radio module
- Awarded quantity: 200 units (100 assigned to Ground Forces / 100 assigned to Special Operations)
- **Program Budget:** Proposed award: \$1,500,000
- Customer: U.S. Army, Ground Forces and Special Operations
- Award date: September 1, 2015
- **Completion date:** March 1, 2017
- **Delivery schedule:** 100 units 12mths ARO (after receipt of order). 50 units every 3 months after first delivery
- Milestone Schedule:
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 - o First delivery: September 1, 2016
 - o Second delivery: December 1, 2016
 - o Last delivery: March 1, 2017
 - o First milestone payment (from customer): October 30, 2015
 - Second Milestone payment: January 30, 2017
 - o Final Milestone payment: May 30, 2017
 - Initial Program review (at the customer's site): November 16, 2015
 - o Subsequent Program reviews: 6 months after the initial review



Expected Result:

- On-time delivery for the three stated product deliverables
- Desire to complete the total program under the stated budget of \$1,500,000
- All milestones accomplished by due dates listed.

Project background / Project Overview

PROJECT OBJECTIVE

The overall objective of this project is for SacTactical to develop, manufacture, and deliver 200 military grade Backpacks with built in refrigerated pouch and radio module for the U.S. Army, Ground Forces and Special Operations. Within the allocated resources budget of \$1.5 million dollars and processing timeline within 18 months to deliver final product. The U.S. Army, Ground Forces and Special Operations will receive first production shipments approximately one year from the date of purchase.

PROJECT ASSUMPTIONS

SacTactical Will assume the US Army will deliver agreed-upon payments for the backpack project inline and on time as planned and requested. We assume the materials for the backpack will meet specific quality guidelines and specifications and that all special materials, vendors, and suppliers will be recommended by the US Army. We assume the same understanding and quality standards for parts and components that will be implemented to build the refrigerator technology and radio module as well. SacTactical also assumes open clear lines of communication, dedication to building the project inducing unseen scenarios



that could occur will be communicated clear and concise by both the U.S Army and SacTactical.

DELIVERABLES

• Deliverables include 200 military-grade Backpacks built to spec with built-in refrigerated pouch and radio modules. SacTactical will strive to deliver these products under budget and on-time as always. Allocating delivery of one hundred units delivered in twelve months ARO (after receipt of order). Followed by fifty units every three months after the first delivery. We have a split order of one hundred backpacks that will be delivered to the U.S. Army ground Forces and one hundred backpacks that will be delivered to the U.S. Special operations forces. The client has requested a supplemental (follow-on) contract for future additional units (backpacks). The client also has expressed quality specifications for top materials and technologies integrations that can withstand the durability, weight, and strength requirements of live solders in the field. We must deliver our best work!

TECHNICAL REQUIREMENTS

The technical requirements for this project will be defined by the Mil-spec standards in research and development (VIP Rubber, 2020). The military specification is the standard specification used by the US military outside ISO standards. Military spec grade materials for the backpack will need to be tested to meet certifying material specifications maintaining certain characteristics to meet physical strength, resistance to temperature, flammability, and other environmental requirements. The backpack will also incorporate a radio module that will need to be tested in accordance with Military Radio Specifications (MRS) (Military Specifications, 1997). testing will diverge meeting specified frequency coverage, modulation,



and power requirements. Radio components will also need to compact, lightweight, and tactical solid-state technology. Other technical requirements will be to adapt a refrigerated pouch which could be implemented as a coolant-based subsystem integration or cold pack hand pouch. These specifications will need to stay within the parameters of the scope according to the U.S. Army specifications. Testing phases and utilization will be allocated further in research and development.

LIMITS AND EXCLUSIONS

Meeting milestones and timelines based on extensive research and development such as integrated technology, prototypes, and acceptance testing for both the refrigeration pouch and radio module. Both might serve possible issues and constraints. If the technology takes too long to develop, parts are hard to acquire, stringent specifications, tolerances, or failed ineffective testing could cause lags in both time and resources ineffectively causing constraints on the budget, deadlines, and meeting milestones. This could possibly assume several project risks factors. Also, acquiring obtaining specific raw materials the backpack material and its electronic components could also be a possible limitation depending on the agreed-upon classified materials with suppliers and vendors to meet special specifications, and delivery times of raw materials. This could ineffectively cause budget limitations with the given \$1.5 dollar budget being exceeded and possibly reckoning the implementations and expectations of the client.



Product scope description

The project awarded September of 2015 has exactly 1 year to develop 250 state-of-the-art tactical backpacks with integrated technology features. Delivery for 3 stated product deliverables are assigned to milestone schedule and implementation over 12-month period ARO (after receipt of order). Products will be distributed evenly by units to the ground forces and Special Operations of the US Army.

Product will include:

- o Initial prototypes scheduled for user testing
- High tech light weight refrigerated pouch Technology
- Military standard equipment technical design four common tactical radio communications device.
- o Durable design and construction using MIL-SPEC high grade materials
- Testing capabilities that can accommodate long-term combat scenarios, weather, heat and cold.
- O Strength-to-weight ratio of materials and components to specification.

Strategic plan

• This contract awarded on September 1st, 2015 with a completion date of March 1st, 2017. Us contractor has informed us that the first Milestone payment 3 months delayed. During this time SacTactical will review the initial design specifications and start research and development on the first test prototype sketches and designs. Also, this time will allow us to develop the ideas we will need to allocate the equipment technical design standards and preliminary research of specified materials and components for the refrigeration and radio module. Also, our testing team can start preparing documenting



design for engineering testing of the materials such as Tensile, compression, ductility, impact, and non-destructive Test. This extra time can get us a head for the preliminary program review deadline.

- This will initially get our team ahead, according to the project management plan we can conduct the initial program review on November 16th, 2015 followed by subsequent program reviews every 6 months thereafter.
- Following the program reviews on June 16th, 2016 we can begin initial production on June 16th, 2016. During this program review we expect the U.S army to very satisfied with the product and proceed with production.
- 3 months after the U.S Army will receive the first delivery to distribute to the Ground and special forces on September 1st, 2016 followed by the third program review 1 month later on November 16th of 2016.
- On December 1st of 2016 SacTactical will be submitting the second delivery, On January 30th 1 month after we should be collecting our second milestone payment (given the program management schedule hasn't been changed due to the delay in the initial first milestone payment).
- On March 1st of 2017 SacTactical well then commence the last delivery of all complete units.
- Followed by final client payment on May 30th, 2017



WBS

Here is the complete WBS from initial scope deign, prototyping, product manufacturing, product packaging, and delivery of goods to the U.S Army.

							Total	
	WBS		Title	Description	Start Date 1/5/16	End Date 1/5/16	estimated days	Point of Contact (POC)
.0			Develop Work Breakdown Structure (WBS)	Description of work to be completed / milestone			1	
	1.1	Review customer statement of work (SOW)		Read and review the statement of work	1/6/16	1/9/16	3	Project Manager
				Highlight and identify all project deliverables and				
		1.1.1	Identify all project deliverables and milestones	milestones associtated with the project	1/6/16	1/9/16	0	Project Manager
				Forward a copy of the customer statement of work to all				
	1.2		Forward a copy of the customer statement of work to the project team	project team members	1/10/16	1/10/16	1	Project Manager
		1.2.1	Begin development of the WBS	Develop the WBS	1/10/16	1/10/16	1	Project team
	1.3		Project team review	Set up a SOW team review with the project team	1/13/16	1/13/16	1	Project team
		1.3.1	Identify all top level work packages	Highlight and identify all top level milestones /	1/14/16	1/15/16	1	S.Pritchard
	1.4		Identify all lower level work packages	identify all work associated with the top level milestones	1/14/16	1/15/16	1	S.Pritchard
		1.4.1	Project team approval	Set up a project team meeting for WBS review / approval	1/17/16	1/17/16	1	Project team
.0			Product Prototype	Prototype development of intial backpack	1/10/15	1/12/15	1	Project team
	2.1		Protype Research	pilimanry research for materials	1/10/15	1/12/15		R&D Team
		2.1.1	material researech (kevlar, etc)	fabricks and backpack materials research	1/10/15	1/12/15	1	R&D Team
		2.1.2	MIL-Spec refrigeration materials and compments	refrigeration compnents research	1/10/15	1/12/15	1	R&D Team
		2.1.2	Mil-Spec radio techniaci design standards	radio design compnent material research	1/10/15	1/12/15	1	R&D Team
	2.2		Protype Backpack design		1/11/15	1/6/15		R&D Team
		2.2.1	Design of backpack	build sketch and design of backpack	1/11/15	1/6/15	8	Design team
		2.2.1	build proptype of backpack	build out intial prortype of backpack v1.0	1/11/15	1/6/15	6	Design team
	2.3		Refirgeration module prototype	protype rifrigerator module	1/11/15	1/6/15	10	Engineering team
		2.3.1	intial compenet design	Design of refrigerator module	1/11/15	1/6/15	10	Engineering team
		2.3.2	intital protype developemnt	Build and test refigerator module	1/11/15	1/6/15		Engineering team
	2.4		Radio module prototype	protype radio module	1/11/15	1/6/15	15	Engineering team
		2.4.1	intial compenet design	Design radio module	1/11/15	1/6/15	15	Design team
		2.4.2	intital protype developemnt	build and test radio module	1/11/15	1/6/15	2	Design team
	2.5		Prototype Assembly	Assmeble all compenets	1/11/15	1/6/15	2	Design team
		2.5.1	assemble protype	assemble all compenets of the intial prototype	1/11/15	1/6/15	10	Design team
	2.6		Submit UT(testing)	Customer testing	1/11/15	1/6/15	10	Design team
		2.6.1	user feeddback	Submit and rate customer test US army	1/11/15	1/6/15	5	Design team
		2.6.2	user changes	changes user wants to product	1/11/15	1/6/15	14	Design team
0			Product manufacturing		6/1/15	10/1/16	30	Operations team
	3.1		Product supply order and recsive	revivables of raw materials	6/1/15	10/1/16	1	Operations team
		3.1.1	supply invintory tracking	tracking of raw materials	6/1/15	10/1/16	1	Operations team
	3.2		raw materail production and tracking	manufacturing line products and amterials usage	6/1/15	10/1/16	1	Operations team
		3.2.1	tracking invintory	tracking and invintory of raw material	6/1/15	10/1/16	1	Operations team
	3.3		finish protuct testing	final product engineering testing	6/1/15	10/1/16	1	project manager
5.0			Product packing	Packaging and finilization of the product	10/1/16	5/1/16	2	Packaging Team
	4.1		product labeling	labing and invintory count of product	10/1/16	5/1/16	2	Packaging Team
		4.1.1	skew tracking labeling	digital geo location tracking	10/1/16	5/1/16	5	Packaging Team
	4.2		Product shipping and stock	final stock of delvierable items to ship	10/1/16	5/1/16	5	Packaging Team
		4.2.1	resources mailing & shipping labels	adding shipping labels for distrubution	10/1/16	5/1/16	8	Packaging Team
			Delivery of products to US Army	Customer product delivery	10/1/16	5/1/16	1	Shipping
	5.1		Ground Forces	Delivery or product to ground forces	10/1/16	5/1/16	14	Shipping

PROJECT RISK

Potential project risk could occur with meeting client's specifications on the deadline and meeting specific milestone expectations due to the possible complexity, research, and development, prototypes, and testing of the technology that we are integrating into this backpack. Other risks could occur through exceeding possible limitations of the specified budget \$1.5 million budget due to more man-hours. Also, depending on the preliminary research and development of the Technologies and design of the backpack and its initial phase. Suppliers and vendors could cause potential risks. Meeting the needs to supply specific mil-spec materials within the given timelines to be accumulated for testing and production purposes could pose a potential risk. As well as possible break downs of any



communication channels within the project, Inducing the design and implementation of the product to meet milestones from the client and our internal teams. issues and challenges must be addressed and communicated at all times.

Major Activities / Milestones

(Reference the project overview in the course project introduction)

	Activ	vities / M	ilestones	
Main Activity	Planned Time (days)	Actual Time (days)	Time Deviation (days)	Major Reason for deviation
Project Award Sept. 1, 2015	0	0	0	On time
First milestone payment (from customer): October 30, 2015	90	182	0	On time
Initial Program review (at the customer's site): November 16, 2015	182	192	10	R&D issues
Subsequent Program reviews: 6 months after the initial review (PR) May. 16, 2016	182	182	0	On time
Production begins June. 16, 2016	350	350	-2	Early production
First delivery: September 1, 2016	350	352	0	On time
Program Review (PR) Nov. 16, 2016	30	32	2	Client was late
Second delivery: December 1, 2016	90	90	0	On time
Second Milestone payment: January 30, 2017	120	120	0	On time
Last delivery: March 1, 2017	182	180	-2	Early delivery
Final 3rd Milestone payment: May 30, 201	700	690	-10	Behind because 1st payment was late
Project Award Sept. 1, 2015	60	182	60	Client was late
First milestone payment (from	182	350	182	Client was late



customer): October 30, 2015				
Initial Program review (at the customer's site): November 16,	30	30	0	On time

Project Closure Synopsis

Overall, I believe our project was a success. I think we need to focus on our team including scheduling producing projects staff between projects getting our staff released and notified of new assignments and discussing performance reviews for team members. Also, we need to discuss our vendors and make sure we implement performance reviews on them. All of our vendors need to be validated to make sure that they are still in business and ensure that our product accounts are still active. We definitely need to acceptance and quality reviews to obtian customer feedback. As far as the manufacturing phase we need to check our equipment and Facilities. Check all project resources to ensure they are there when we need them and to make sure any equipment that we have used is returned. Finally we need to review to make sure there is no unfinished work non-critical work left, that the project tasks are complete, the quality standards are met.



FINAL PROJECT

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Project metrics performance

Goals and Objectives Performance

Is with the highest regard that SacTactical completed the development of 200+ units tactical militarize backpacks with refrigerator pouches and radio modules that meet military specifications.

Milestones and delivery performance

Project Award Sept. 1, 2015

First milestone payment (from customer): October 30, 2015

Initial Program review (at the customer's site): November 16, 2015

Subsequent Program reviews: 6 months after the initial review (PR) May. 16, 2016

Production begins June. 16, 2016

First delivery: September 1, 2016

Program Review (PR) Nov. 16, 2016

Second delivery: December 1, 2016

Second Milestone payment: January 30, 2017

Last delivery: March 1, 2017

Final 3rd Milestone payment: May 30, 201



Budget Performance

Project finished successfully within budget given the minor risk and challenges.

Project management allocated 10% of the initial award amount to a reserve funding for the project. When certain issues arise such as the research and development and design team flaws on the radio module and the loss of our military specification vendor. We where able to facilitate the allocation of needed resources to finish the project. We consumed 7.3% of the backup capitol leaving SacTactical under budget by 3.7% (\$55,000) of the funds, and underbudget from the entire project by \$56,000. We where able to retain \$111,000 under budget.

Project Management Issues

As far as project management issues during this project we had some issues arise do to miscommunication, lack of validation, and just a communication in general. Between research development and Design. I believe our company needs to take an agile approached to managing projects. I believe this to be invaluable.

Human Resource Management

These are the resources need for the project and during the project including outlined steps of how we accomplished and overcame.

- Project management meeting one time
- Human resources hired temp production workers
- 2 engineers quite

Project knowledge (IP) from project team members:



Lesson learned project documentation will be facilitated to capture and retain knowledge
is this current project and retain for pulmonary reviews after the Hand off And
completion of this project.

Resource that need changed and steps taken:

Essential there where issues from both the customer and initial implementation of this project based in 2 categories

- Customer issues
- Internal issues

The overall objective of this project is for SacTactical to develop, manufacture, and deliver 200 military grade Backpacks with built in refrigerated pouch and radio module for the U.S. Army, Ground Forces and Special Operations. Within the allocated resources budget of \$1.5 million dollars and processing timeline within 18 months to deliver final product. The U.S. Army, Ground Forces and Special Operations. We have run into a few issues in the initial phase of research and development and design. Please see the analysis below. It is of vital importance the team review this analysis to facilitate the course of action

Customer Issues: On Oct 15, 2015, The U.S Army notified us that the first Milestone payment would be 3 months delayed. Ineffectively this is going to impact the life cycle of the project. We will have to extend the life cycle of the project effective immediately. Advise management to plan and reschedule work efforts accordingly.



Also, material orders will need to be delayed facilitating the extension of the planning and preparing phase specifically for research and development. We will have to accept any materials on order as of now that have been pre-ordered and use document planning procedures to inventory and itemize accordingly furring the extension.

I would like to allocate a small during this time to get a head start on the preliminary research for the specified materials and components for the refrigeration and radio module. This should take minimal time and allow us to get ahead once we get back on schedule.

Also, with this extension, we will need to work on design documents, schematics, and to facilitate vendor and material tracking for parts. and get a head start on developing the initial prototype design. I recommend all team managers re-adapt scheduling to fit the current circumstances and we will schedule a review meeting at the end of every month to see if we are prepared to meet the client's need and get a running start on the project. The contract is locked in unfortunately working with the US government these things happen. So, we will use our best efforts to get ahead of the game and back on schedule in 3 months.



On March 15, 2015, the client has informed us that the material pattern for the backpack will not be available to meet the initial production start date. Advise without this pattern that we put our focus more into research and development of the electronics and modules for the refrigeration system and radio module. These design efforts were an estimated risk to the timeline of the project due to the complexity then stringent military specifications we must adhere to. This will give us a little bit of lead weigh to focus on the more complex aspects of this project. I would like the design team to see if they can get some initial estimates on measurements for the depth length and width of the refrigeration pouch and the radio module. This will give us a step forward to acquiring the right components for the project ahead of time. As for the design team please Focus your efforts on researching and finding correct vendors material types that meet the military specifications that we know of.



On May15, 2015, the US Army notified us that they would like to increase their initial delivery from 100 backpacks 250. Project management will find out if the ratio for deliverables will need to be circumstantial and split evenly amongst the ground forces and Special Operations. But during this time design team wall need to use document procedures to accommodate the allocation of material needs. Also, research and development will need to reassess parts and components used for the refrigeration couch and the radio module. At our third end-of-month meeting we will discuss the new project terms including budget and acquisition what should very well increase. We will need to plan accordingly to meet the demands and needs of our client's request so all teams when need to start preparing and modifying original workflow and schedule to accommodate this request. This increase means that the human capital will increase so we can facilitate the current plan what keeping in place specific delays while improvising for the adjustment increase of product. This will also facilitate the compensation for my work hours.

Internal Issues:

Issue 1: It has been discovered that the refrigerator module developed by our research and development team is too large for the refrigerator backpack pouch. I am counting on the research and development team to work with the material design team to see if this refrigerator model will meet the specifications of the client and if it is more feasible to redesign the backpack to facilitate the size as opposed to redesigning a complete new refrigerator module. I assume the re-design of this module will take more resources and time, but I need definitive answer to this from both teams. I also would like estimates from the material design team on a new re-design, resources, document planning, and scheduling to facilitate the change difference.



Luckily only enough fabric to implement the initial prototype designs was ordered. We will need to reevaluate the refrigerator model and the material design then have a meeting by weeks end to discuss these possible changes, meet to implicate a final solution, and facilitate a sound design.

Therefore, we are going to have to tap into our 10% Reserve funds allocated by from \$1,500,000 awarded by the US Army. I have advised management to plan and reschedule work efforts accordingly. first, we will need to postpone any material orders until we can reevaluate a new design plan. We will need management and R&D to design new mockups of the radio module for the material design team. We will need an estimate from the design team for the new prototype production. And project management will handle talking to the shareholders advising them of this issue. Due to the nature of our first payment of the contract being delayed for 3 months. We still have plenty of time to re-associate a new design and prepare for the initial program review. I suggest all departments discuss which resources they will need and how much time they realistically estimate. We will meet at the end of the week on Friday to go over the new analysis.

Issue 2: Unfortunately, the subcontractors assigned to build the radio module for the backpack have permanently shut down and are no longer in business. Given the time constraints in the financial constraints, we are going to have to think outside of the box on this one.

I will need research and development to take 3 team members and allocate overtime resources as 2 project leaders and a project engineer. 2 team members will need to search for new vendors that qualify in military-spec radio equipment design.



I will need these project leaders to contact and get estimates of 150 units that meet the specifications and price points outlined in the scope of the project budget. I expect the project leaders to get at least 10 estimate proposal in 2 weeks to compare. They will also need to make changes in document control by creating a new branch to track correspondence.

Furthermore, I would like to have an estimate of what it would cost SacTactical to develop these modules in-house to compare with the estimated proposals. I would like one of the project Engineers for research development to put together a proposal of cost, equipment, resources, and an estimated time(man-hours).

This will allow us to compare which possibility is more feasible and productive for SacTactical to pursue. With this data, we can evaluate a new critical path to determine the potential time and cost impacts. Also, with this, we can follow a new plan of reassociation to build a new working schedule and compare it to the current milestone. Any alterations in the milestone deadline will have to be brought to the stakeholders and we will need to calculate the amount of slack for the proponent of the project.

Areas affected by these unexpected events:

- Impact to project plan: The overall plan will be re-adjusted based on the approximation of changes to the project plan. Finding and new adjustments will be worked in to effectively change the plan while meeting the requirements.
- Changes to product design the product will need to be re-designed. Calculations and planning will have to be adjusted and tested to facilitate specifications and standards of the client the US Army.
- Changes to project budget: These changes will have impact on budget, as we may be required to have higher budget for allocating cost of resources, time, and equipment



- associated with the project plan. The resources with cover these changes will have to be pulled out of the 10% reserve of the contract amount.
- Changes to human capital: The Human capital will not meet the specifications of the client's project. The radio module is a key requirement and that will affect the projects implementation.
- Changes to project schedule: These issues will have impact on the schedule due to the
 reallocations of planning and calculating critical paths to facilitate project change
 designs.

Risk Management

Below is the risk analysis and calculations to

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					Risk Impact to			
lumber	Risk Name	Full Risk Cost	Risk Probability	Factored Risk cost	Project	Risk Mitigation Plan	Point of Contact	Expected Risk Retire date
						focus on deign planning, document procces, and		
1	Stakeholder milestone payments fail	\$20,000	30%	\$6,000	M	prototyping	PM	First delivery Date
	. ,					Plan to hold back 15% of awaard contract amount		3 months Before Final
2	Manufacturing Risk (Increase of product order)	\$66,000	10%	\$6.600	н	to afford extra resources if needed	Manufacturing team	Delivery date
	guardian (marada a production)	700,000		71,000		Implements mulitple vendor sources and aviablity,		benvery date
3	Shortage of material resources	\$180,000	10%	\$18.000	М		Production team	2nd Milestone payment
3	Shortage of material resources	\$180,000	10/6	\$10,000	IVI	Implements failure mode ananlysis with event		Before intial program
	Burlandard I. and allertain	ć42.000	200/	ćo coo	1			, ,
4	Project schedule and milestone	\$43,000	20%	\$8,600	L		HR	review
_				4		ensure kickoff and follow up schedules in project		After initial project
5	Project execution plan	\$500,000	60%	\$300,000	M		Project Planning	review
						impleemnts variations of protoyps with document		
6	Project performance specifications	\$200,000	60%	\$120,000	L			2nd Project Review
						Collaberate weekly scrum meeting for all		Before 1st Intial project
7	Project R&D Design Conflict	\$95,000	90%	\$85,500	Н		R&D	review.
						Develop full use-case for product an dschedule		
8	Project justification	\$80,000	40%	\$32,000	H	User test on project review dates	Design team	Before first delivery date
						Source contractors who have biuld Mil-spec radios		
						to purchase and rev engineer or associate cost		
						ananlysis plan to see if pre-biult units would be		Before 1st Intial project
9	Radio Module design	\$562,000	80%	\$449,600	M		R&D	review.
		+,		T · · · · · · · · · ·				
						Source contractors who have biuld Mil-spec		
						refrigerator pouches to purchase and rev engineer		
								Before 1st Intial project
40		¢242.000	C00/	6407.200		or associate cost ananlysis plan to see if pre-biult		
10	Freezer pac design	\$312,000	60%	\$187,200	L	units would be cheaper then biulding in house.	R&D	review.



Customer Expectations

Make assumptions on the following:

• Were the customer expectations met? If not why? Any outstanding expectations remaining? All customer expectation where met and exceeded as planed.

Lessons Learned

Make assumptions on the following:

- The initial design process could have been implemented a different way the research and
 development team designed the refrigerated pouch module over the tolerance of the
 backpack size. Just lied to the entire backpack having to be remodified and redesigned
 and material design team.
- I think understanding tolerances planning for design flaws should be evaluated. and that specification should come from the material design team with those tolerances.
- I also think that due to one of our loss of vendors in the initial part of the project for the radio modules. Research and development team should review and validate are outsourced vendor list to ensure that the vendors are not only still in business but can still meet the needs of our company.
- I believe the for a project starts we should have a plan B and a plan C vendor ready to take a contract from us.



Project Closure Recommendations

Recommendations I would have, in regard to the project planning would facilitate implementations of a Project Evaluation Process after each project and closing a during this review we can bring together all the document control, lessons learned and vital metrics from the project to discuss and identify any project parameters that we could use to make art projects better and more trustworthy.

Also, we need to implement quality review process end-user stink reviews two clients if we do not already have an automated system in place, I believe we could start with Gathering reviews and feedback. Feedback is vital to the success of a project management.

I also believe in between projects we should be focusing on our internal processes such as:

Configuration control

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- Organization procedures set up to monitor developing project scope compared to
 the original baseline scope. Process established to confirm the project team is
 following the goals and objectives set forth at the beginning of the project.
- Design control

•

- Relates to the monitoring efforts directed to the project's scope, schedule and cost during the design phase.
- Trend monitoring

•

 Relates to the monitoring and tracking towards the project's costs, schedules and labor resources used against the original plan. Allows the project team to make



the necessary adjustments where and when necessary. This effort is usually a collaborated effort with the program finance team.

- Document control
 - •
 - Ensures all important project documentation is compiled, delivered, and disseminated to all project parties in a judicious fashion. Document control oversees all revisions and versions of any project document.
- Acquisition control
 - •
 - Relates to the purchasing and acquiring of any and all equipment, services and materials needed for the project development and implementation.
- Specification control
 - •
 - Ensures the project specifications are controlled (revisions and versions), prepared
 and delivered to all required parties



Project Final Report Approvals

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Approved By: Project Manager

Approval Date: 10/18/2020



References

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