Bicycle Project Procurement Audit Checklist.

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Embry Riddle Aeronautical University Worldwide

Closure Package Content

Project Acceptance Form

Project Name:	Bicycle Smartphone Adaptation , Project ID number 0123456
Date:	12/05/2016
Project Sponsor:	Build-a-bike Inc.
Project Manager:	Troy Stempfley

Project Summary: This project was initiated on 6 November 2016 for the purpose of designing and adding a Smart Phone adaptor to a bicycle. The customer Build –a-bike Inc. Agree on 9 November to the Project plan. On 11 November a request was made to shorten the original schedule to complete preproduction prior to the Christmas holiday. See Change request #1. On 15 November Build-a-bike request to add adult training wheels for handy cap riders. See Change Request #2. The Project was completed 2 Dec 2016

Closure Agreement: This document provides concurrence of the here to signed stakeholders of the Bicycle Smartphone Adaptation, Project ID # 0123456, affirm that the project has been developed as originally request dated 6 November 2016 with only approved changes as indicated by the change documentation, attached here in, and meets all objectives and deliverables. The undersigned sponsors, for Build-a-bike Inc. accept full responsibility for the project product, with the exception of the material manufactures warrantees, and release the project team from all further liability, to include recovery of said warrantees which Build-a-bike will purse on its own accord as needed.

Project Budget and Payment;

	Amount	**Date Approved**
Original approved Budget	$35,799.92	09 November 2016
Change 1 Budget Approved	$16,869.92	11 November 2016
Change 2 Budget Approved	$16,982.63	15 November 2016
Final Budget Amount:	**$16,982.63**	**Due 15 Dec 2016**

Final payment is required no later than 15 Days past the due date without accruing 10% monthly interest charges. Any further arrangements must be made with Project Engineering Inc. finance office, (123) 456-7890 no later than 3 Days prior to the past due date to avoid penalty.

Project Sponsor Actions: □ **Accept** □ **Reject**

Sponsor Comments: _____

_____

_____

_____

Signed _____Date_____

William Schofield
Chief Engineering Build-a-bike Inc.

Project Manager Comments: _____

_____

_____

Signed _____Date_____

Troy Stempfley
Project Manager.

Bicycle Work Breakdown Structure

The following Work Breakdown structure and definitions provides the overall scope for the Build-a-bike Smartphone Adaptation Project. Where in a Bicycle is modified to accept a Smartphone mounting platform.

1
Bicycle
- 1.1 Frame Set
  - 1.1.1 Frame
  - 1.1.2 Handlebar
  - 1.1.3 Fork
  - 1.1.4 Seat
- 1.2 Crank Set
- 1.3 Wheels
  - 1.3.1 Front Wheel
  - 1.3.2 Rear Wheel
- 1.4 Braking System
  - 1.4.1 Lever
  - 1.4.2 Cables
  - 1.4.3 Caliper
- 1.5 Shifting System
  - 1.5.1 Right Control
  - 1.5.2 Left Control
  - 1.5.3 Front Derailleur
  - 1.5.4 Rear Derailleur
  - 1.5.5 Front Cable
  - 1.5.6 Rear Cable
- 1.6 Integration
  - 1.6.1 Concept
  - 1.6.2 Design
  - 1.6.3 Assembly
  - 1.6.4 Testing
    - 1.6.4.1 Component Test
    - 1.6.4.2 Product Test
    - 1.6.4.3 Customer Test
- 1.7 Project Management
- 1.8 Smart Phone Speaker Dock
  - 1.8.1 Mounting Base
  - 1.8.2 Connector Port
  - 1.8.3 Speakers
  - 1.8.4 Wiring

WBS Detailed Dictionary	
WBS Element No./Name: 1.1 Frame Set	**Date:11/2/2016**
Author/Organization: Assembly Shop	
Email Address: ashop@buildabike.com	**Phone:** 123-456-7890

Estimate Summary: (Fill out using data from attached detailed worksheet)

Labor	$24.00
Travel	$0.00
Material	$570.00
Subcontracts	$0.00
ODC	$34.00
Total	**$628.00**

WBS Element Description:

Assemble the Frame set from components listed in Activity/task

Activity/Task Descriptions:

Unpacking frame set components and quality inspect
Install fork with bearing set
Install handle bar post and handle bar
Install seat with post.

Key Cost-Driving Assumptions: $34

Cost for shipment from Frame shop and various venders
Frame & Fork set- $24
Handle bar & post set- N/A local purchase.
Seat & Post Set - $10

Task Entry/Exit Criteria:

TASK ENTRY: All components must be available and Quality inspected.

TASK EXIT: Frame Set assembly completed ready for further component installation.

				Labor Hours by Labor Category							
Labor	Detailed Schedule Activities/Task Descriptions	Start Date or predecessor	Estimated Duration	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource
1	Unpacking frame set components and quality inspect	11/7/16	.5	A Tech							
2	Install Fork Set	11/7/16	.5	A Tech							
3	Install Handle bar post and Handle bar	11/7/16	.5	A Tech							
4	Install Seat post and seat	11/7/16	.5	A Tech							
	Total Hours		2								
	Labor Rate		$12								
	Total Cost by Labor Category		$24								
Travel	Purpose/Activity		Travel Dates	Location	No. Trips	No. Travelers	Per Diem	Hotel	Airline/ Car	Rental Car	Est. $$$
1	none										
2											
Materials	Item Description/Activity			Vendor	Qty	Unit Price	Total $	Lead Time	Del Date		Est. $$$
1	Frame & Fork Set			Buildabike Frame Shop	1	$400	$400				
2	Handle bar Set			Jerry's Aluminum Fabrication		$75	$75				
3	Seat Set			Outside source		$95	$95				
Subcontract	Task Statement/Activity/SOW Ref.				Con-tractor	Location	Total $		Comp. Date		Est. $$$
1											
2											
ODC	Explanation/Activity						Total $				Est. $$$
1											
2											

WBS Detailed Dictionary

WBS Element No./Name: 1.2 Crank Set	**Date:11/2/2016**
Author/Organization: Assembly Shop	
Email Address: ashop@buildabike.com	**Phone:** 123-456-7890

Estimate Summary: (Fill out using data from attached detailed worksheet)

Labor	$12.00
Travel	$0.00
Material	$451.00
Subcontracts	$0.00
ODC	$19.00
Total	**$482.00**

WBS Element Description:

Crankset is a carbon and machined alloy component purchased from a manufacturer and installed on the bicycle frame. After frame installation, the pedals are attached to the crankshaft.

Activity/Task Descriptions:

Unpack component
Quality control inspection
Install crankset on frame fitting
Install crankset bolts
Torque bolts to specified pounds
Grease pedals
Screw on pedals

Key Cost-Driving Assumptions:

SRAM RED Crankset from SRAM	$451
Shipping	$19

Task Entry/Exit Criteria:

Task Entry: Unpack component	*Task Exit: Ensure component quality*
Task Entry: Install crankset bolts	*Task Exit: Torque crankset bolts*
Task Entry: Grease pedals	*Task Exit: Tighten pedals*

				Labor Hours by Labor Category							
Labor	Detailed Schedule Activities/Task Descriptions	Start Date or predecessor	Estimated Duration	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource
1	Unpack Component	11/7/16	.2	B Tech							
2	Quality Control Inspection	11/7/16	.2	B Tech							
3	Install Crankset on Frame	11/7/16	.1	B Tech							
4	Install Crank bolts	11/7/16	.1	B Tech							
5	Torque Bolts	11/7/16	.2	B Tech							
6	Grease Pedals	11/7/16	.1	B Tech							
7	Screw on Pedals	11/7/16	.1	B Tech							
	Total Hours		1								
	Labor Rate		$12								
	Total Cost by Labor Category		$12								
Travel	Purpose/Activity		Travel Dates	Location	No. Trips	No. Travelers	Per Diem	Hotel	Airline/ Car	Rental Car	Est. $$$
1	none										
2											
Materials	Item Description/Activity			Vendor	Qty	Unit Price	Total $	Lead Time	Del Date		Est. $$$
1	Crankset			SRAM	1	$451	$451	2 weeks	1.5 weeks		
2											
Subcontract	Task Statement/Activity/SOW Ref.				Con-tractor	Location	Total $		Comp. Date		Est. $$$
1											
2											
ODC	Explanation/Activity						Total $				Est. $$$
1											
2											

WBS Detailed Dictionary	
WBS Element No./Name: 1.3 Wheels	**Date:** 11/2/2016
Author/Organization: Assembly Shop	
Email Address: ashop@buildabike.com	**Phone:** 123-456-7890

Estimate Summary: (Fill out using data from attached detailed worksheet)

Labor	$18.00
Travel	$0.00
Material	$268.94
Subcontracts	$0.00
ODC	$0.00
Total	**$286.64**

WBS Element Description:

Front and rear wheel are purchased from a manufacturer and installed on the bicycle frame.

Activity/Task Descriptions:

Unpack front and rear wheels
Quality control inspection
Install front wheel
Install rear wheel
Torque wheel bolts

Key Cost-Driving Assumptions:

Mavic aluminum rims (front and rear) *$159.95*
**free shipping*

Task Entry/Exit Criteria:

Task Entry: Unpack front and rear wheels — *Task Exit: Quality control inspection*
Task Entry: Install front and rear wheels — *Task Exit: Torque bolts*

				Labor Hours by Labor Category							
Labor	Detailed Schedule Activities/Task Descriptions	Start Date or predecessor	Estimated Duration	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource
1	Unpack Front and Rear Wheels	11/7/16	.2	C Tech							
2	Quality Control Inspection	11/7/16	.2	C Tech							
3	Install Front Wheel	11/7/16	.2	C Tech							
4	Install Rear Sprocket cassette	11/7/16	.5	C Tech							
5	Install Rear Wheel	11/7/16	.2	C Tech							
6	Adjust alignment	11/7/16	.2	C Tech							
	Total Hours		1.5								
	Labor Rate		$12								
	Total Cost by Labor Category		$18								
Travel	Purpose/Activity		Travel Dates	Location	No. Trips	No. Travelers	Per Diem	Hotel	Airline/ Car	Rental Car	Est. $$$
1	none										
2											
Materials	Item Description/Activity			Vendor	Qty	Unit Price	Total $	Lead Time	Del Date		Est. $$$
1	Front and Rear Wheel			Mavic	1	$159.95	$159.95	1 week	3 days		
2	Rear Sprocket Cassette			SRAM	1	108.99	$108.95				
Subcontract	Task Statement/Activity/SOW Ref.				Con-tractor	Location	Total $		Comp. Date		Est. $$$
1											
2											
ODC	Explanation/Activity						Total $				Est. $$$
1											
2											

WBS Detailed Dictionary

WBS Element No./Name: 1.4 Breaking System	**Date:** 11/2/2016
Author/Organization: Assembly Shop	
Email Address: ashop@buildabike.com	**Phone:** 123-456-7890

Estimate Summary: (Fill out using data from attached detailed worksheet)

Labor	$32.00
Travel	$0.00
Material	$29.99
Subcontracts	$0.00
ODC	$9.00
Total	**$70.99**

WBS Element Description:

The breaking system consists of two levers, two cables, and two calipers. Each set is attached to the frame and uses friction to stop the front and back wheels.

Activity/Task Descriptions:

Unpack levers, cables, and calipers
Quality control inspection
Attach levers to handle bars
Attach cables to mechanisms and frame
Attach calipers to frame

Key Cost-Driving Assumptions:

Sunlite 26 Inch Front and Rear Brake Set	$29.99
Shipping	$9.99

Task Entry/Exit Criteria:

Task Entry: Unpack levers, cables, and calipers	*Task Exit: Quality control inspection*
Task Entry: Route cables	*Task Exit: Connect cables to lever and caliper*

				Labor Hours by Labor Category							
Labor	Detailed Schedule Activities/Task Descriptions	Start Date or predecessor	Estimated Duration	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource
1	Unpack Levers, Cables, and Calipers	11/7/16	.25	D Tech							
2	Quality Control Inspection	11/7/16	.25	D Tech							
3	Attach Levers to Handle Bars	11/7/16	.5	D Tech							
4	Attach Cables to Mechanism and Frame	11/7/16	.5	D Tech							
5	Attach Calipers to Frame	11/7/16	.5	D Tech							
6	Adjust Brakes	11/7/16	.5	D Tech							
	Total Hours		2.5								
	Labor Rate		$12								
	Total Cost by Labor Category		$32								
Travel	Purpose/Activity		Travel Dates	Location	No. Trips	No. Travelers	Per Diem	Hotel	Airline/ Car	Rental Car	Est. $$$
1	none										
2											
Materials	Item Description/Activity			Vendor	Qty	Unit Price	Total $	Lead Time	Del Date		Est. $$$
1	Lever, Cables, and Caliper Assembly			Sunlite	1	$29.99	$29.99	5 week	3 days		
2											
Subcontract	Task Statement/Activity/SOW Ref.				Con-tractor	Location	Total $		Comp. Date		Est. $$$
1											
2											
ODC	Explanation/Activity						Total $				Est. $$$
1											
2											

WBS Detailed Dictionary

WBS Element No./Name: 1.5 Shifting System	**Date:** 11/2/2016
Author/Organization: Assembly Shop	
Email Address: ashop@buildabike.com	**Phone:** 123-456-7890

Estimate Summary: (Fill out using data from attached detailed worksheet)

Labor	$42.00
Travel	$0.00
Material	$166.00
Subcontracts	$0.00
ODC	$43.00
Total	**$251.00**

WBS Element Description:

The shifting system comes as a kit from a supplier and is assembled on the bicycle frame.

Activity/Task Descriptions:

Unpack controls, derailleurs, and cables
Quality control inspection
Install left control
Install right control
Install front derailleur
Install rear derailleur
Install front cable
Install rear cable

Key Cost-Driving Assumptions:

The shifting system comes in a kit from our supplier	*$166*
Shipping	*$43*

Task Entry/Exit Criteria:

Entry task: Unpack parts *Exit task: Quality control inspection*

				Labor Hours by Labor Category							
Labor	Detailed Schedule Activities/Task Descriptions	Start Date or predecessor	Estimated Duration	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource
1	Unpack Controls, Derailleurs, and Cables	11/7/16	.25	E Tech							
2	Quality Control Inspection	11/7/16	.25	E Tech							
3	Attach Front Control	11/7/16	.5	E Tech							
4	Attach Rear Control	11/7/16	.5	E Tech							
5	Attach Front Derailleur	11/7/16	.5	E Tech							
6	Attach Rear Derailleur	11/7/16	.5	E Tech							
7	Attach Front Cable	11/7/16	.25	E Tech							
8	Attach Rear Cable	11/7/16	.25	E Tech							
9	Adjust system		.5	E Tech							
	Total Hours		3.5								
	Labor Rate		$12								
	Total Cost by Labor Category		$42								
Travel	Purpose/Activity		Travel Dates	Location	No. Trips	No. Travelers	Per Diem	Hotel	Airline/ Car	Rental Car	Est. $$$
1	none										
2											
Materials	Item Description/Activity			Vendor	Qty	Unit Price	Total $	Lead Time	Del Date		Est. $$$
1	Controls, derailleurs, and cables assembly			MTB Bike	1	$29.99	$166.50	1.5 week	5 days		
2											
Subcontract	Task Statement/Activity/SOW Ref.				Con-tractor	Location	Total $		Comp. Date		Est. $$$
1											
2											
ODC	Explanation/Activity						Total $				Est. $$$
1											
2											

WBS Detailed Dictionary	
WBS Element No./Name: 1.6 Integration	**Date:** 11/2/2016
Author/Organization: Integration Team	
Email Address: integration@buildabike.com	**Phone:** 123-456-7891

Estimate Summary: (Fill out using data from attached detailed worksheet)

Labor	$4620.00
Travel	$0.00
Material	$0.00
Subcontracts	$0.00
ODC	$0.00
Total	**$4620.00**

WBS Element Description:

The integration element is time allotted to review and make updates to the concept of the bike build if needed as well as evaluate the design and assembly efficiency. Testing of the bicycle is also accounted for under this element.

Activity/Task Descriptions:

Concept
Design
Assembly
Test

Key Cost-Driving Assumptions:

(List key cost-driving assumptions, including specialized or long-lead equipment, customer furnished equipment (i.e. things that won't be expensed to the project), travel requirements, subcontracts, shipping and any other known direct charges to the project.)

Task Entry/Exit Criteria:

Task Entry: Start testing *Task Exit: Document testing results*

				Labor Hours by Labor Category							
Labor	Detailed Schedule Activities/Task Descriptions	Start Date or predecessor	Estimated Duration	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource
1	Concept	10/24/16	40	Engineer							
2	Design	10/31/16	40	Engineer							
3	Assembly	11/7/16	160		Tech						
4	Testing	11/20/16	20			Test Tech					
	Total Hours			80	160	20					
	Labor Rate			$30	12	15					
	Total Cost by Labor Category			$2400	$1920	$300					
	Total hours: 260										
	Total cost: $4620										
Travel	Purpose/Activity		Travel Dates	Location	No. Trips	No. Travelers	Per Diem	Hotel	Airline/ Car	Rental Car	Est. $$$
1	none										
2											
Materials	Item Description/Activity			Vendor	Qty	Unit Price	Total $	Lead Time	Del Date		Est. $$$
1											
2											
Subcontract	Task Statement/Activity/SOW Ref.				Con-tractor	Location	Total $		Comp. Date		Est. $$$
1											
2											
ODC	Explanation/Activity						Total $				Est. $$$
1											
2											

WBS Detailed Dictionary		
WBS Element No./Name: 1.7 Project Management		**Date:** 11/2/2016
Author/Organization: Project Team		
Email Address: projectteam@buildabike.com		**Phone:** 123-456-7899
Estimate Summary: (Fill out using data from attached detailed worksheet)		
Labor	29,400.00	
Travel	$0.00	
Material	$0.00	
Subcontracts	$0.00	
ODC	$0.00	
Total	**$29,400.00**	
WBS Element Description: *The project team will oversee the project in its entirety, from beginning to end.*		
Activity/Task Descriptions: *Project-long project management*		
Key Cost-Driving Assumptions: *NA*		
Task Entry/Exit Criteria: *Task Entry: Open project*	*Task Exit: Close project*	

				Labor Hours by Labor Category							
Labor	Detailed Schedule Activities/Task Descriptions	Start Date or predecessor	Estimated Duration	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	TOTAL			
1	Project Management	10/24/16	280	Project Manager	Project Team	Project Team	Project Team				
	Total Hours			280	280	280	280	1120			
	Labor Rate			$30	25	25	25	$105			
	Total Cost by Labor Category			$7800	6500	6500	6500	$29400			
Travel	Purpose/Activity		Travel Dates	Location	No. Trips	No. Travelers	Per Diem	Hotel	Airline/ Car	Rental Car	Est. $$$
1	none										
2											
Materials	Item Description/Activity			Vendor	Qty	Unit Price	Total $	Lead Time	Del Date		Est. $$$
1	none										
2											
Subcontract	Task Statement/Activity/SOW Ref.				Con-tractor	Location	Total $		Comp. Date		Est. $$$
1											
2											
ODC	Explanation/Activity						Total $				Est. $$$
1											
2											

WBS Detailed Dictionary	
WBS Element No./Name: 1.8 Smart Phone Speaker Dock	**Date:** 11/2/2016
Author/Organization: Assembly Shop	
Email Address: ashop@buildabike.com	**Phone:** 123-456-7890

Estimate Summary: (Fill out using data from attached detailed worksheet)

Labor	$27.00
Travel	$0.00
Material	$50.00
Subcontracts	$0.00
ODC	$7.99
Total	**$84.99**

WBS Element Description:

The smart phone speaker dock is a purchased assembly that is attached to the bicycle handle bars and is used to provide a speaker system using the cyclist's smart phone.

Activity/Task Descriptions:

Unpack base, port, speakers, and wiring
Quality control inspection
Mount base
Install connector port
Mount speakers
Wire assembly

Key Cost-Driving Assumptions:

Bikonnect Bluetooth speaker assembly	$50.00
Shipping	$7.99

Task Entry/Exit Criteria:

Task Entry: Unpack assembly parts	*Task Exit: Quality control inspection*
Task Entry: Mount components	*Task Exit: Wire-in components*

				Labor Hours by Labor Category							
Labor	Detailed Schedule Activities/Task Descriptions	Start Date or predecessor	Estimated Duration	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	Position /Skill/ Resource	TOTAL			
1	Unpack base, port, speakers, and wiring	11/7/16	.25	E Tech							
2	Quality control inspection	11/7/16	.25	E Tech							
3	Mount base	11/7/16	.25	E Tech							
4	Install connector port	11/7/16	.25	E Tech							
5	Mount speakers	11/7/16	.25	E Tech							
6	Wire assembly	11/7/16	1	E Tech							
	Total Hours		2.25								
	Labor Rate		12								
	Total Cost by Labor Category		$74.00								
Travel	Purpose/Activity		Travel Dates	Location	No. Trips	No. Travelers	Per Diem	Hotel	Airline/ Car	Rental Car	Est. $$$
1	none										
2											
Materials	Item Description/Activity			Vendor	Qty	Unit Price	Total $	Lead Time	Del Date		Est. $$$
1	Smart phone speaker dock assembly			Bikonnect	1	50.00	50.00	1 week	3 days		
2											
Subcontract	Task Statement/Activity/SOW Ref.				Con-tractor	Location	Total $		Comp. Date		Est. $$$
1											
2											
ODC	Explanation/Activity						Total $				Est. $$$
1											
2											

Bicycle Smart Phone Adaptation Budget

Line Item	FY 16-17 Baseline			
Bicycle	Labor	Material	Other	FY Total
1.1 Frame Set	**$ 24.00**	**$ 570.00**	**$ 34.00**	**$ 628.00**
1.1.1 Unpack components	$ -	$ -		
1.1.2 Inspect components	$ -			
1.1.3 Install Handle bar post	$ -			
1.1.4 Install Handle bar	$ -	$ -		
1.1.5 Install Seat Post	$ -	$ -		
1.1.6 Install Seat				
1.2 Crank Set	**$ 12.00**	**$ 451.00**	**$ 19.00**	**$ 463.00**
1.2.1 Unpack components	$ -			
1.2.2 Inspect components	$ -			
1.2.3 Install crank set on frame	$ -	$ -		
1.2.4 Install crank bolts	$ -			
1.2.5 Torque bolts	$ -			
1.2.6 Grease pedals	$ -			
1.2.7 Screw on pedals	$ -			
1.3 Wheels	**$ 18.00**	**$ 268.94**		**$ 286.94**
1.3.1 Unpack wheels	$ -			
1.3.2 Inspect components	$ -			
1.3.3 Install front Wheel	$ -	$ -		
1.3.4 Install rear sprocket cassette	$ -	$ -		
1.3.5 Install rear Wheel	$ -	$ -		
1.3.6 Adjust alignment	$ -			
1.4 Brake System	**$ 32.00**	**$ 29.99**	**$ 9.00**	**$ 70.99**
1.4.1 Unpack components	$ -			
1.4.2 Inspect components	$ -			
1.4.3 Attach break levers	$ -			
1.4.4 Attach Cables	$ -	$ -		
1.4.5 Attach Calipers	$ -			
1.4.6 Adjust brakes	$ -			
1.5 Shifting system	**$ 42.00**	**$ 166.00**	**$ 43.00**	**$ 251.00**
1.5.1 Unpack components	$ -			
1.5.2 Inspect components	$ -			
1.5.3 Attach Front derailleur contoller	$ -	$ -		
1.5.4 Attach rear derailleur controller	$ -	$ -		
1.5.5 Attach from derailleur	$ -	$ -		
1.5.6 Attach Rear derailleur	$ -	$ -		
1.5.7 Attach front cable	$ -	$ -		
1.5.8 Attach rear cable	$ -	$ -		
1.5.9 Adjust system	$ -			
1.6 Integration	**$ 4,620.00**			**$ 4,620.00**
1.6.1 Concept	$ -			
1.6.2 Design bike	$ -			
1.6.3 Asssembly	$ -			
1.6.4 Testing	$ -			
1.7 Project mangement	**$ 29,400.00**			**$ 29,400.00**
1.8 Smart Phone dock	**$ 27.00**	**$ 50.00**	**$ 7.99**	**$ 84.99**
1.8.1 Unpack components	$ -			
1.8.2 Inspect components	$ -			
1.8.3 Mount Base	$ -			
1.8.4 Install connector Port	$ -			
1.8.5 Mount speakers	$ -	$ -		
1.8.6 Wire Assembly	$ -			
1.8/.6 Bicycle				
Total	$ 34,151.00	$ 1,535.93	$ 112.99	
Adjusted Total	**$ 35,799.92**			

Change 1

Name of Project: Bicycle Build	**Project Manager: M. Villegas**
Change Request #: 1	**Change Request Date: 11/11/16**
Change Requested By: Name: T Stempfley	**Current Project Phase: Integration**

Description of Change:
The original completion date was December 28th, 2016. The change described herein would compress the schedule and make the completion date November 29th, 2016.

The customer requested the project be completed early to reduce cost and make the product available for Christmas. To reach an early completion, the project team used Fast Tracking of the "Integration assembly" and bicycle build, reducing 30 days from the original schedule.

Scope Impact:
None

Schedule Impact:
The change will reduce the time and cost by combining the "Integration Assembly" with the actual bicycle build then perform testing afterwards. This reduces the overall project time by 162 hours. The rest of the project schedule will follow accordingly with the same comparative start date but the new completion date will be November 29th, 2016.

Cost Impact:
The EAC for this project before the requested compression is $35,799.92. The revised EAC would be $16,869.92

The new PM costs will be $12,390 vs $29,400 and the change will eliminate $1920 cost for "Integration assembly."

Quality Impact:
Preexisting quality standards remain in place.

Possible Risks:
Negative risk(s): minimal; none
Positive risk(s): higher sales potential from getting the product out before the holidays
the reduced overall cost of the project

Reviewed By: **Position:** **Date: 11/11/16**
Project Team

Recommended Action Approve or Reject? **APPROVE**

Change 2

Name of Project: Bicycle Build	**Project Manager: Marilyn Villegas**
Change Request #: 2	**Change Request Date: 11/15/2016**
Change Requested By: Customer	**Current Project Phase: Frame Set**

Description of Change:
The original bicycle design did not include training wheels. Customer has requested training wheels be added to appeal to a broader group of buyers.

To meet this request the project team requests a change to the work breakdown structure, budget, schedule, and scope. The training wheels will be purchased for $106.71 each from Sunlite Cycling and installed during the "wheels" task. The scope will change to include a significant design addition. An addition of .5 hour of labor will be required.

Scope Impact:
The scope of the bicycle build will change to include the training wheels. This new design will make the bicycle suitable for riders from beginner to advanced.

Schedule Impact:
The schedule for the build will be increased by .5 hours. Fifteen minutes (.25 hours) will be required to unpack the training wheels and 15 minutes (.25 hours) will be required to install them. The remainder of the project will follow comparative start time but commence a 15 minutes later, if the task is not already scheduled to be performed in parallel. comparative start date. The completion date will stay November 29th, 2016.

Cost Impact:
The EAC for this project before the requested addition of the training wheels is $16,869.92. The revised EAC will be $16,982.63, which includes labor at .5 hours ($6) and supply cost of $106.71.

The total added cost will be $112.71.

Quality Impact:
Preexisting quality standards remain in place.

Possible Risks:
Negative risk(s): the addition of $112.71 to the budget
the addition of .5 hours to the schedule
Positive risk(s): higher sales potential from appealing to a larger pool of potential customer

Reviewed By: **Position:** **Date: 11/15/16**
Project Team

Recommended Action Approve or Reject? **APPROVE**