



NORTHERN
ARIZONA
UNIVERSITY



GoBabyGo Team A (14)



ME 476C

Abdullah Alajmi

Abdulrahman Almutairi

Ernes Distajo

Mohammad Aljuaidi

Samuel Williams

09/28/16

Background

Where is GoBabyGo at now?

What are people doing with it?

How is it changing?



Project Description

- Overview
- Goal
- Sponsor
- Client

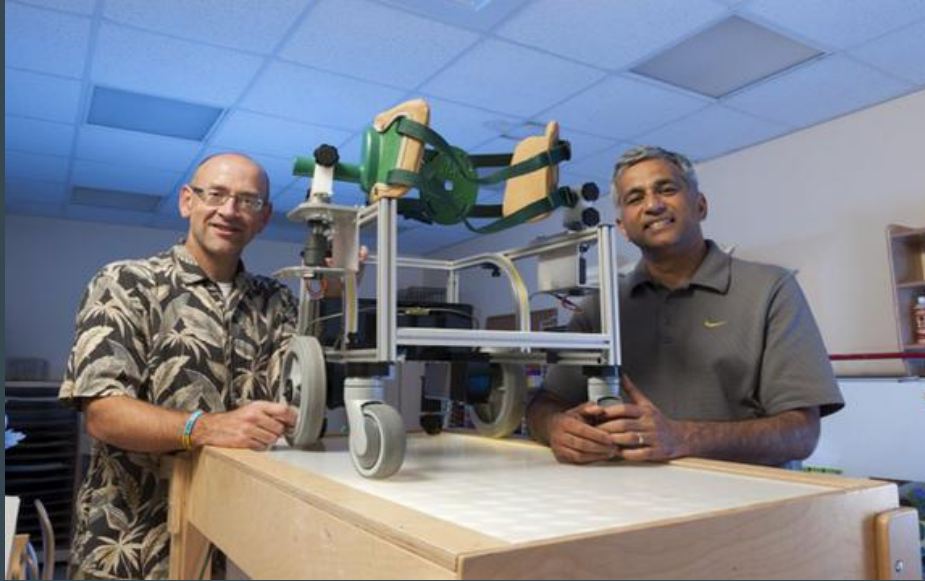


Xander And Sarah [1]



[1]

UD1



Modifying or Creating a New Steering System

Atari Joystick

- Created for playing video games
- Basic mechanical design and electrical system [3]
- Potentially combine operation and steering
- Reverse gear
- Arduino?



Modifying or Creating a New Steering System

Dreisch Leaning Tricycle

- Lean whiling turning, develop skills to ride a bicycle
- Shifts the steering to the rear axle via a hinge and a pivoting swing-arm [2]
- Children with no mobility in arms and hands
- Used with switches



Customer Requirements and Weightings

- House of Quality

Customer Requirements	Weighting	
Cost	4	11.59%
Safety	5	14.49%
Quality	4.5	13.04%
Transportable	3.5	10.14%
Unique Solution	4	11.59%
Longlife Time	3	8.70%
Material accesibility	4	11.59%
Easy to assemble	3.5	10.14%
Control System	3	8.70%
Total:	34.5	100.00%

Budget

- Prototype
- Use 6V or 12V
- Materials
- PVC pipes
- Swimming noodle
- Save 20% for emergency



Work Schedule

Needed	Background Report		Sam	Abdullah	Mohammad	Abdulrahman	Emes		Actual Workers:	15
1	Introduction						1	1		
1	Project Description		1					1		
2	Original System		1		1			2		
2	Performance				1		1	2		
Needed:	Preliminary Report		Sam	Abdullah	Mohammad	Abdulrahman	Ernes		Actual Workers:	5
5	Updated Background Report		1	1	1	1	1	5		
3	ER's							0		
2	Completed HOQ							0		
3	Considered Designs							0		
2	Design Selected							0		
15			1	1	1	1	1	5	Not Completed	
2	Preject Description				1	1		2	Actual Workers:	10
1	Background			1				1		
3	Benchmarking		1	1			1	3		
2	CR and Weights		1		1			2		
1	Schedule						1	1		
1	Budget					1		1		
10		Total:	2	2	2	2	2	10	Completed	

Gantt Chart

Name	Begin date	End date
• Team Introductions	9/7/16	9/7/16
☐ • Team Meeting 1	9/14/16	9/14/16
• HoQ Brainstorming	9/14/16	9/14/16
☐ • Research	9/15/16	9/20/16
• Client Meeting	9/16/16	9/16/16
• Background Research	9/15/16	9/20/16
• HoQ Draft	9/15/16	9/20/16
• Draft of HoQ and Outline of Backg...	9/21/16	9/21/16
• Team Meeting 2	9/21/16	9/21/16
• Staff Meeting 1	9/21/16	9/21/16
☐ • Background Report	9/22/16	9/29/16
• Introduction	9/22/16	9/29/16
• Project Description	9/22/16	9/29/16
• Original System	9/22/16	9/29/16
• Performance	9/22/16	9/29/16
• Deficiencies	9/22/16	9/29/16
• Customer Requirements and H...	9/22/16	9/29/16
• Design Research	9/22/16	9/29/16
• System Level	9/22/16	9/29/16
• Subsystem Level	9/22/16	9/29/16

☐ • Presentation 1	9/28/16	9/29/16
• Project Description	9/28/16	9/28/16
• Background	9/28/16	9/28/16
• Benchmarking	9/28/16	9/28/16
• CR and Weights	9/28/16	9/28/16
• Schedule	9/28/16	9/28/16
• Budget	9/28/16	9/28/16
• Background Report and Peer Eval 1	9/30/16	9/30/16
• Presentation 2	10/24/16	10/24/16
• Preliminary Report and Peer Eval 2	10/28/16	10/28/16
• Individual Analytical Analysis Report	11/18/16	11/18/16
• Presentation 3: Final Presentation	11/21/16	11/21/16
• Final Report and Peer Eval 3	12/2/16	12/2/16
• Final Prototype	12/6/16	12/6/16

Questions?

Citations

[1] timeline, "Past, present, future,". [Online]. Available:

http://www.tiki-toki.com/timeline/entry/267842/Past-Present-Future/#vars!date=2012-12-04_08:27:02! Accessed: Sep. 28, 2016.

[2] Nationswell. "How One Man's Trip to Toys 'R' Us Brought Mobility to Hundreds of Disabled Kids." *YouTube*. YouTube, 05 Feb. 2014. Web. 15 Sept. 2016.

[3] R. Hu, "Learning by leaning: The Dreisch Tricycle rides like a bike," in Core77, Core77, 2014. [Online]. Accessed: Sep. 25, 2016.

[4] T. Harris, "How Joysticks work," in Tech, HowStuffWorks, 2002. [Online]. Accessed: Sep. 28, 2016.

[5] Alibaba, "Buy products online from china wholesalers at Aliexpress.com," 1999. [Online]. Available: <https://www.aliexpress.com/item/Swimming-pool-noodle-6cm-150cm-for-swimming-floating-chair-summer-kids-water-toys-water-Sports-Wacky/32347287111.html?spm=2114.40010308.4.194.RTIpyk>. Accessed: Sep. 28, 2016

[6] M. McDonald, "{BEST} PVC pipe car wash Tutorial! - the scrap Shoppe," in *best pvc pipe car wash tutorial*, Rachelle @ Adventures in Creating, 2012. [Online]. Available:

<http://www.thescrapshoppeblog.com/2012/06/best-pvc-pipe-car-wash-tutorial.html>. Accessed: Sep. 28, 2016.

[7] Project goals related Keywords & suggestions - project goals Long Tail Keywords,". [Online]. Available:

<http://www.suggest-keywords.com/cHJvamVjdCBnb2Fscw/>. Accessed: Sep. 28, 2016.

[8] A. M. Kravetz and N. S. Foundation, "Toys cars offer mobility to children with disabilities," Live Science.

[Online]. Available: <http://www.livescience.com/23572-assistive-robotics-aide-young-children-nsf-bts.html>.

Accessed: Sep. 25, 2016.