


Final Proposal Presentation 11/08/2017

Marshall Playground - Team F4

BY:

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Project Description

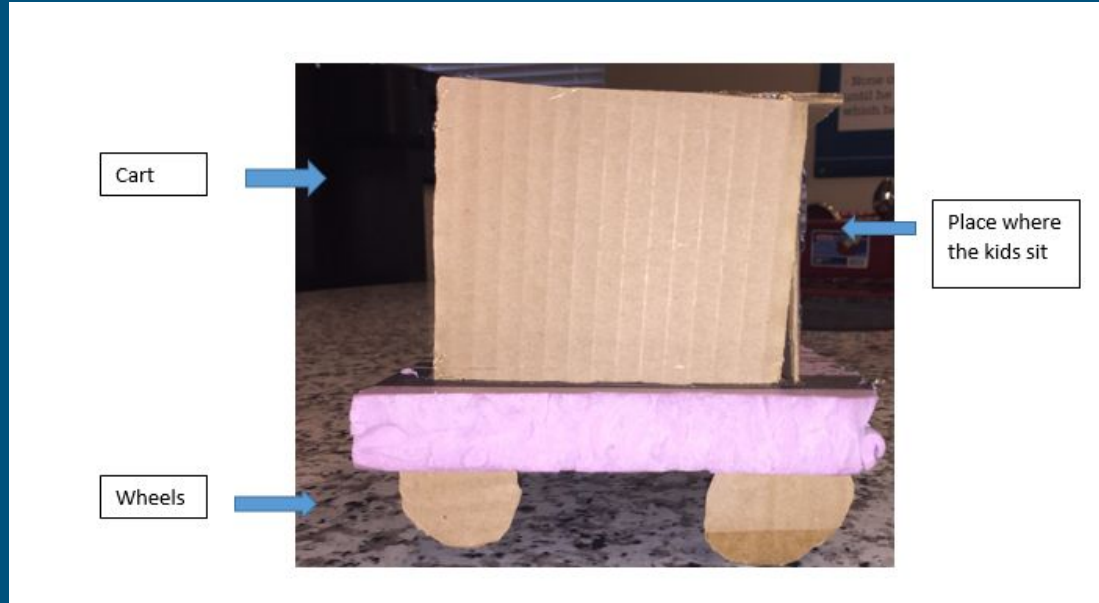
- Our Project is to create a game on playground for kids with disabilities
- Our clients are teacher Eva Herberger and the physical therapist Krista Branch from Marshall Elementary school
- This design is sponsored by Gore a global material science company.
- Main idea of the design

Design Description



Figure 1: Design selected

Design Description



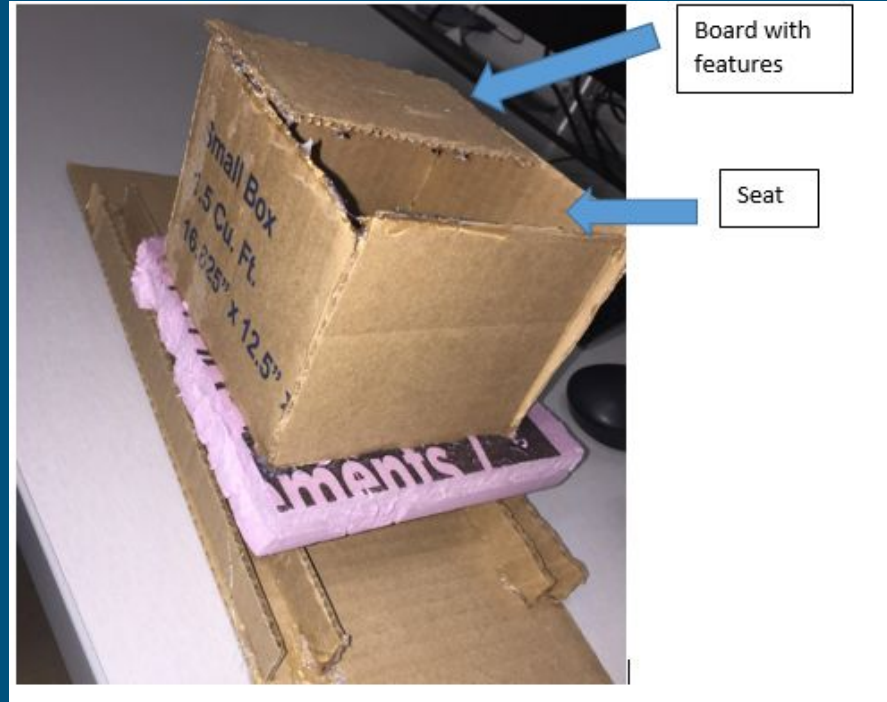
Design Description



Design Description

Features:

- Sound motivations
- Board with different materials



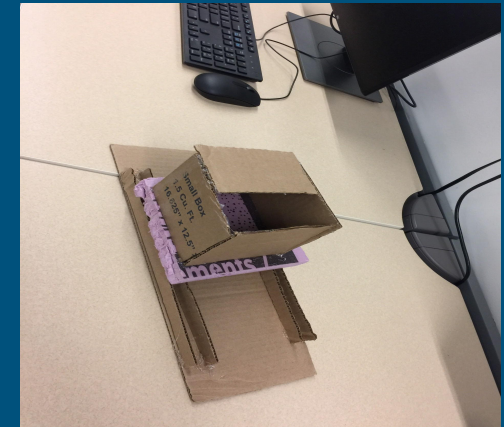
Design Description

Table 1: Functions & Implementations

Estimated cart weight	~ 11.34 kg.
Estimated dimensions of the cart	~ 1 m Length x 0.8 m Width x 1.1 m Height
Seat material	Polyurethane Foam Pad
Movement of the cart	Mechanically by human
Track material	Steel
Sound Motivations	Arduino Uno

Design Requirements

Customer Requirements	How the design met the requirements
1-Safe	1-Round all sharp edges to $\frac{1}{8}$ 2-We will make sure the spaced is big enough so the chilled hand will not get stuck (track design) 3- Locked door 4- safety belt
2-Size	1-Fit for two children
3- Portable	1-Portable: Will use lightweight Materials Less than 30 pounds
4-Easy to set up	1-Take the cart and place on the track
5-Easy to use	1-kids will only have to sit and have fun 2- teacher would only need to push the cart
6- Long life	1-The device will be made of materials with high quality and stands various weather conditions
7- less cost	1-Will make sure our materials not expensive







Schedule & Budget

- Our budget is \$2000
- Total Estimated price \$405.93
- Current estimated total cost is shown in table

Schedule & budget

	<u>Part Description</u>	<u>Quantity</u>	<u>Price (\$)</u>	<u>Total (\$)</u>
	Rubber Wheels (Casters)	4	\$38.96	\$155.84
	39 in. x 37 in. Plain Aluminum Sheet in Silver	1	\$21.89	\$21.89
	1/16" x 24" x 48" Gray PVC Sheet	12	\$10.91	\$130.92
	Chimes	1	\$11.99	\$11.99
	Harness	1	\$8.99	\$8.99

Schedule & Budget

	Picture icons	2	\$14.99	\$29.98
	Edge cushion	1	\$12.99	\$12.99
	Arduino Uno R3 (Atmega328 – assembled)	1	\$24.95	\$24.95
	polyurethane foam pad (soft material for the seat)	1	\$8.38	\$8.38
				Total Cost= \$405.93

Schedule & Budget

Task Name	Start Date	End Date	Jan			Feb				Mar				Apr						
			Jan 14	Jan 21	Jan 28	Feb 4	Feb 11	Feb 18	Feb 25	Mar 4	Mar 11	Mar 18	Mar 25	Apr 1	Apr 8	Apr 15	Apr 22	Apr 29	May 6	
Staff/Team Meetings	01/15/18	01/15/18	■ Staff/Team Meetings																	
Staff/Team Meetings	01/22/18	01/22/18	■ Staff/Team Meetings																	
Staff/Team Meetings	01/29/18	01/29/18	■ Staff/Team Meetings																	
Hardware Review 1	02/02/18	02/05/18	■ Hardware Review 1																	
Staff/Team Meetings	02/12/18	02/12/18	■ Staff/Team Meetings																	
Staff/Team Meetings	02/19/18	02/19/18	■ Staff/Team Meetings																	
Staff/Team Meetings	02/26/18	02/26/18	■ Staff/Team Meetings																	
Hardware Review 2	03/02/18	03/05/18	■ Hardware Review 2																	
Midpoint Presentation	03/10/18	03/12/18	■ Midpoint Presentation																	
Staff/Team Meetings	03/26/18	03/26/18	■ Staff/Team Meetings																	
Staff/Team Meetings	04/02/18	04/02/18	■ Staff/Team Meetings																	
Final Product Testing Proof	04/05/18	04/09/18	■ Final Product Testing Proof																	
UGRADS practice Poster	04/13/18	04/16/18	■ UGRADS practice Poster																	
UGRADS	04/20/18	04/23/18	■ UGRADS																	
Final Report	04/27/18	04/30/18	■ Final Report																	
CAD Package	04/27/18	04/30/18	■ CAD Package																	

References

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[6] '36 in. X 36 in. Plain Aluminum Sheet in Silver', Available: [Online]

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Any Questions?