

Portable Carrier B

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ME476c-008

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Project Description

- ▶ What is our project about ?
- ▶ Who are our stakeholders ?
- ▶ Why is this product important ?

Background and Benchmarking

There are some existing designs that attempted to achieve something similar to our goal

These are some of the designs that relate to our project that will help us know the current state of progress:

- portable shopping cart

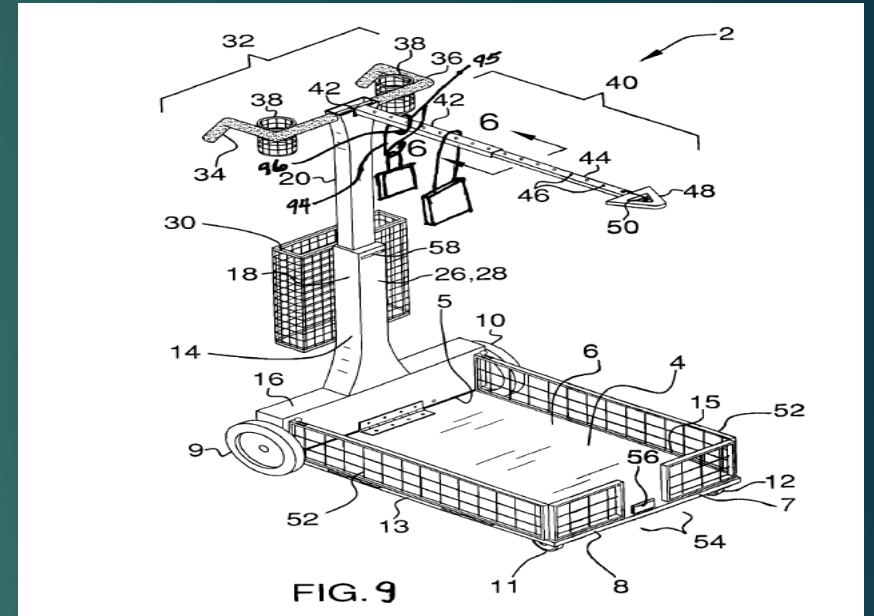
- Wheeled container carrier

- Shopping trolley

Background and Benchmarking

Portable shopping cart:

Allows a person to collect items when shopping and then store the shopping cart when done by folding it up into a small, packable space. The lower mounted platform can be folded up against a stand.



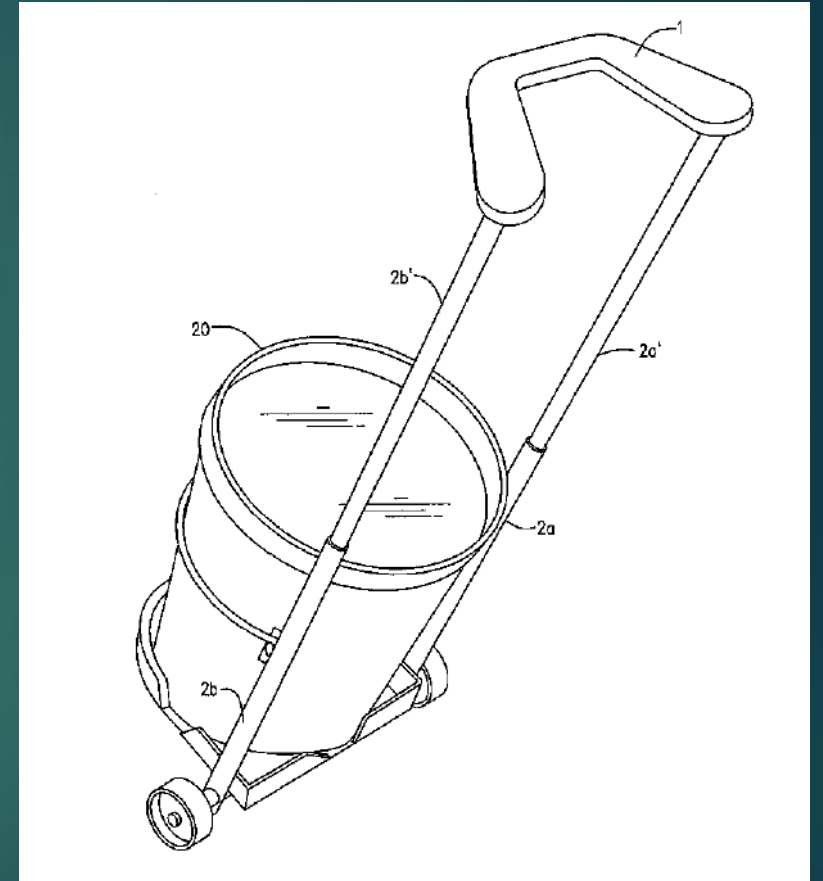
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Background and Benchmarking

Wheeled container carrier:

A portable carrier with a standard sized bucket with wheels connected by an axle element and configured to position and support the bucket. It has a handle over the center of gravity of the bucket to support lifting and pulling of the carrier.



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Background and Benchmarking

Shopping Trolley

The shopping trolley has a bag with high spatial storage. The bag is closed to make items secure. Has tires to make transportation easier.



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Customers Needs

- Stable
- Mobility
- Capacity
- Affordable
- Safety



[1]

Abdullah Alroumi

Portable Carrier

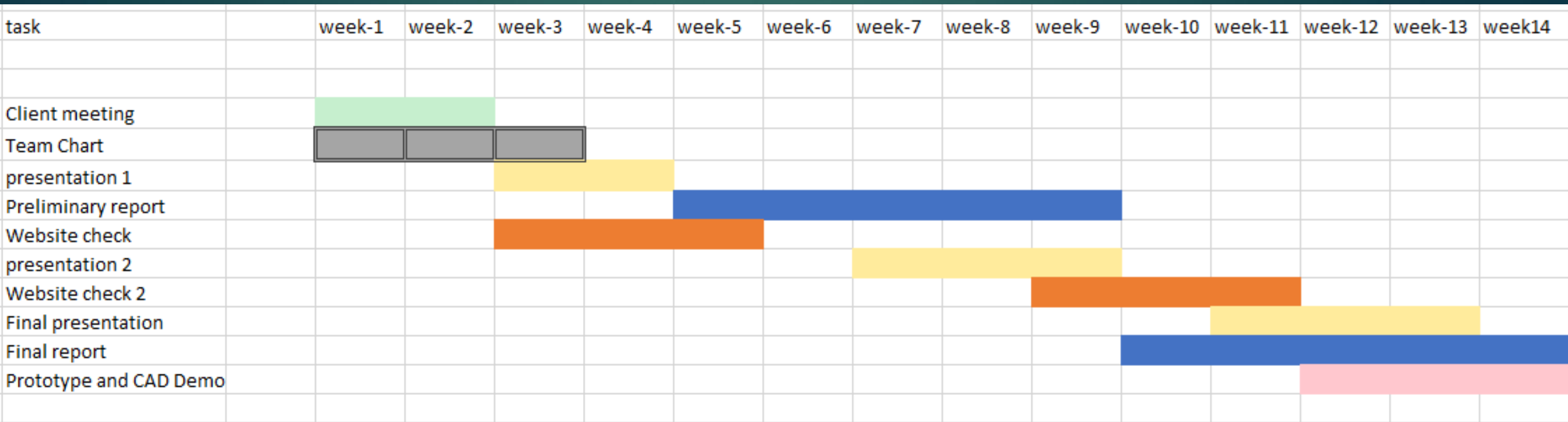
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Engineering Requirements

- Size
- Weight
- Cost
- Material
- Motion in x, y-direction

Schedule



The team is on schedule

Budget

Component name	<u>quantity</u>	Supplier	Cost (\$)
1-pneumatic cylinder	1	<u>Bimba</u>	100
2-vavle	1	Automation Direct	17
3-compressor	1	Ningbo <u>Haosheng</u>	60
4-tires	8	Service caster	$2*7.35+6*5.49$
5-triangle	2	Stair <u>Cl</u>	2.8
6-Scissor Lift	1	<u>snowmobilestudsa</u> <u>les</u>	100
7-Frame	3	Home depot	21
8-Arduino kit	1	<u>newegg</u>	45.99

Total budget=\$394.43

References

[1] <https://i1.wp.com/creditoagil.es/wp-content/uploads/2015/06/BORRARNOS-DEL-ASNEF-300x290.png?resize=300%2C290>

[2] <https://patents.google.com/patent/US7566069B1/en>

[3] <https://patents.google.com/patent/US8789836B2/en>

[4] <https://www.bigw.com.au/product/shopping-trolley-purple/p/8336961/>