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## Project Deliverable E: Project Schedule and Cost

### Introduction

After producing a fair amount of conceptual designs based on our design criterias, analyzing these concepts as a team and picking the best one for our first prototype through a thorough evaluation, we are now ready to outline a plan and a schedule for the upcoming tasks. This deliverable will consist of making a list of all the tasks which need to be completed, an estimated duration for each task, a Gantt diagram, a list of the significant project risks and an estimate of the cost for all components and materials.

#### Task Assessment

Task	Duration	Team member
Clean sketch of first prototype	3 hours	TBD
Client Meeting	15 mins	All available
Prototype Reviewing	1 week	All
Build small scale prototype	1 week	All
Client Meeting II	15 mins	All available
Prototype Reviewing	1 week	All
Client Meeting III	15 mins	All available
Build frame	1 week	TBD
Purchasing Materials	2 hours	TBD
Construction	2 weeks	All
Presentation Preparation	1-2 weeks	All

TITLE	MEMBERS LABELS STATUS	\$	March, 2020		
		5	5 27 28 29 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 0	01 02	03 04 (
<u>Clean s</u>	OPEN		Clean Clean sketch of first prototype		
Client N	OPEN	*	-Client Meeting I		
<u>Prototy</u>	OPEN	*	Prototype Reviewing		
<u>Build sr</u>	OPEN	*	Build small scale prototype Build small scale prototype		
Client N	OPEN	*	Client Meeting II		
Prototy	OPEN	*	Prototype Reviewing		
Purcha	OPEN	*	Purchasing M— Purchasing Materials		
<u>Build fr</u>	OPEN	*	Build frame		
Constru	OPEN	*	Construction		
Client N	OPEN	*	Client Meeting III		
Present	OPEN		Presentation Preparation	n Prepa	aration

# **Risk Assessment**

Risk	Contingency plan(s)		
Not all the members are able to meet the client.	<ul> <li>Consider everyone's schedule</li> <li>Prepare questions with group before meeting takes place</li> <li>Take extensive notes at meeting; share notes with group</li> </ul>		
Running out of time	<ul> <li>Keep design simple and aspirations low; Extra features can be added if time allows.</li> <li>Update our Gantt diagram regularly</li> <li>Group members can volunteer free time to come in after hours to put in extra work if needed</li> </ul>		
Long delivery time	<ul> <li>Order as soon as possible</li> <li>Buy locally</li> <li>Use materials from in MakerSpace</li> </ul>		
Running out of materials	<ul> <li>Overestimate materials needed</li> <li>Purchase back-up materials</li> </ul>		

Component / material	Quantity estimate	Cost estimate <sup>1</sup>	Can be sourced from University?
PVC Pipes	25 ft	at \$1/ft = \$25	Yes
Clear tubing	10 ft	at \$1/ft = \$10	Yes
Variable Flow Valve	1	\$10	Yes
Water Pump	1	\$20	Yes
Water Reservoir	1	\$5	Yes
Solar panel	1	Not included in costs	Yes
Wood (frame)	25 ft	with 2"x4" at \$0.50/ft = \$12.5	Yes
Wood screws	<100	100 pack = \$5	Yes
Hinge	2	\$2/hinge = \$4	Yes
Total		\$91.50	
Total + Tax (13%)		\$103.40	

<sup>1</sup> Estimates based on local Home Depot inventory

The cost estimate comes to approximately \$100, however, all the materials needed can be provided by previous projects/materials available in the MakerSpace. As such, it may not be necessary to spend any money externally to complete our project. It is good that our entire project's materials could be purchased within our allotted budget but we are hoping this is not necessary.

## Conclusion

To conclude, we have come up with a fairly thorough plan for the rest of this project and a schedule for the upcoming tasks. The next step of this project will be making a test plan and developing our first prototype.