



Submission Date: 2nd April

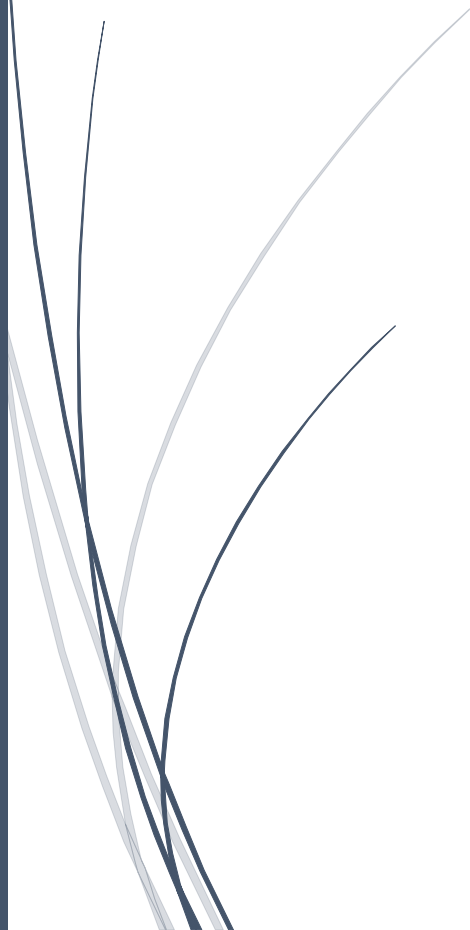
Multidisciplinary Project

Assessment 1

PROJECT PROPOSAL

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Project Title: Sunpack'd (Solar Backpacks)

1. Choice and Reasons

Our team chose to work on the Sunpack'd Bag project to provide a sustainable and convenient way of charging multiple electronic devices while on the go. We decided to improve upon an existing product, a solar panel integrated backpack, by adding features such as a waterproof design, built-in power bank, multiple compartments, fashionable design, and easy-to-carry straps. Additionally, currently existent solar panel bags consist of external charging ports that allow wires to be connected from the outside, which are prone to damage from rain and short-circuiting due to rainwater, we aim to improve these shortcomings to increase effectiveness and safety of our backpacks. Our desired outcome is to increase awareness of sustainability and reduce carbon footprint by marketing around 200 backpacks that align with our project schedule and budget.

- Objectives

Our objectives for Sunpack'd, the solar backpack, are threefold. Firstly, we aim to promote sustainability by utilizing renewable solar energy and recyclable materials, reducing greenhouse gas emissions and carbon footprint. Secondly, we aim to ensure accessibility through the backpack's multiple compartments, making it easy to store and access various devices. Lastly, we aim to appeal to consumers' fashion preferences by creating a fashionable design that combines style and sustainability.

2. Three Tests

- Practicality: The Sunpack'd Bag is a practical solution for users who need to charge multiple electronic devices while on the go. By incorporating features along with solar panel such as a built-in power bank, multiple compartments, and easy-to-carry straps, the Sunpack'd Bag provides a convenient, versatile, and energy-efficient way to carry and charge electronic devices. The waterproof design also addresses the practical concern of protecting devices from water damage.
- Viability: Solar panel use for electrical generation has grown to 5% in 2023 compared to only 0.1% in 2010. The Sunpack'd Bag project is a viable solution

because it is an improvement of an existing product and meets the needs of a growing market for sustainable and convenient charging solutions. By marketing the product to environmentally conscious consumers and customers who value practicality and convenience like outdoor enthusiasts who require a durable and waterproof backpack for their outdoor activities, the project has the potential to generate revenue and profits long-term.

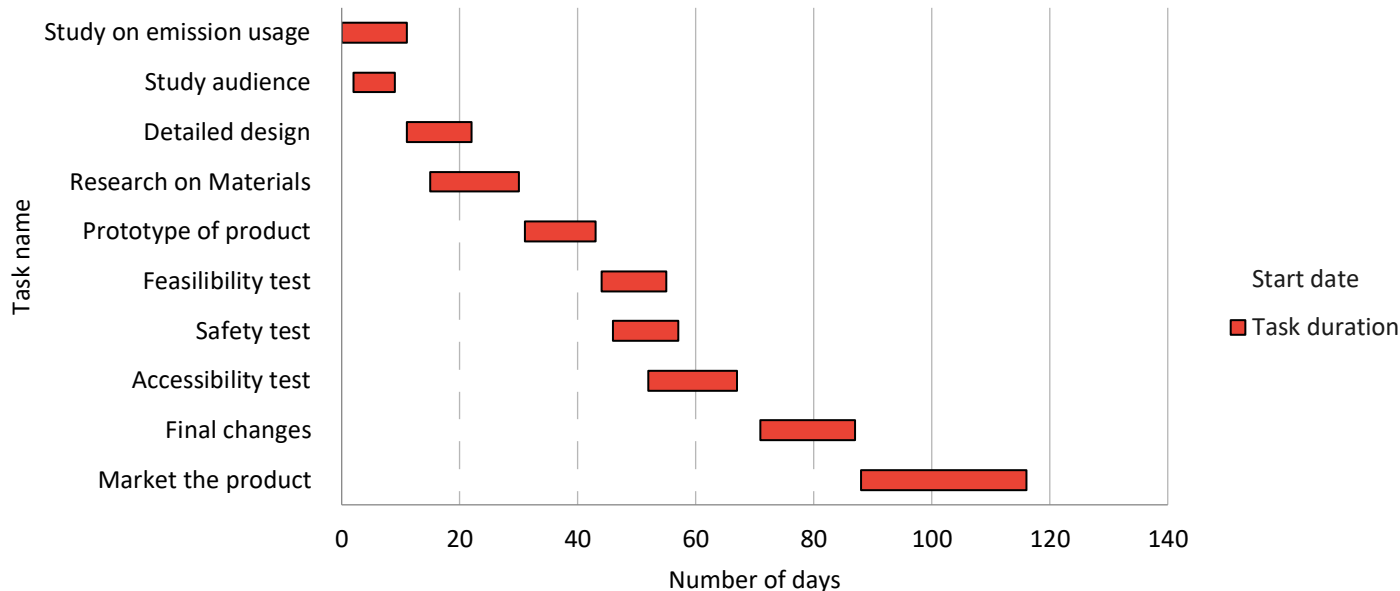
- **Ethics:** Regarding ethics, it's essential to ensure that our product complies with all relevant laws and regulations. For instance, the installation and design of the solar panels require the expertise of a registered architect or a Professional Engineer with a valid practising certificate issued by the BOA or PEB. By adhering to the appropriate legal procedures, we can guarantee that our product is ethical.

3. How to execute this project?

We can utilize various project management techniques and tools to execute our project, such as Gantt chart, risk management, and action plan. The Gantt chart enables us to visualize the project timeline, allocate resources, and manage dependencies between tasks. We also developed a risk management plan to identify potential risks related to manufacturing, logistics, or design and establish contingency plans to mitigate them. An action plan was created to break down the project into smaller tasks with clear deadlines and responsibilities to ensure the project meets its objectives. Finally, we developed a strategy that included market research, pricing, and distribution decisions to guide the overall direction of the project. By implementing these project management tools, we can ensure that our project is executed efficiently and effectively, with a focus on creating a stylish and waterproof charging solution for electronic devices.

Risk	Owner Initials	Likelihood	Consequence	Actions
Costly	Project Manager	M	M	Research alternative resources to optimize saving costs
Low ROI	Project Sponsor	L	H	Do a thorough market research to ensure the product is suitable for customers hence generating more sales
Failure to launch	Project Manager	L	H	Define the product vision through milestones and carry out a good execution
Market failure	Project Sponsor	M	H	Understand competitors' patterns and analyze consumers' needs
Hazardous faults	Project developer	L	H	Inspect thoroughly on PV installations to ensure security

Gantt Chart



Task name	Start Date	End date	Action Plan				
			Major Stages	Milestone	Responsibility	Time Frame	Resources
Study Emission Usage	10/4/2023	21/4/2023	Research Stages	Ideas for product	All members	Weeks 1 - 2	Completed
Study Audience	22/4/2023	29/4/2023					
Detailed design	30/4/2023	25/5/2023	Proposal Admission	Planning and tests	AI members	Weeks 3 - 4	Completed
Research Materials	26/5/2023	11/6/2023					
Prototype Product	12/6/2023	24/6/2023	Product Design	Budget discussion, Strategies	Thazin, Dean, Nathan	Weeks 5 - 6	Revenue models, Poster Design Needed
Feasibility Test	25/6/2023	30/7/2023					
Safety Test	1/8/2023	12/8/2023	Pre-launch	Evaluating feedbacks	Ragul, Nathan, Dharmik	Weeks 7 - 8	Digital Marketing tools needed
Accessibility Test	14/8/2023	21/9/2023					
Final Changes	22/9/2023	28/9/2023	Product Launch	Final Improvements	All members	Weeks 9 - 10	Target Marketing Chanel needed
Market Product	30/9/2023	28/10/2023					

4. Desired Outcomes

The project's goal is to develop an eco-friendly charging solution that is easy to use and practical for daily use, while also raising awareness of carbon footprint and showcasing the feasibility of sustainability in common products. The project aims to market about 200 solar bags within the set budget and timeline, while completing the necessary reports needed on the budget, marketing strategy, timeline schedule, progression report, and test results to showcase the viability of the bags.